

IRCON/S&T/1800021/12239



e - PROCUREMENT DOCUMENTS FOR

**Design, Supply, Installation, Testing and Commissioning of
Electronic Interlocking Based Signaling and Telecommunication
System including Single Line Automatic Block Signaling from Maho
to Anuradhapura section of Sri Lanka Railway.**

e- BID

REGISTERED OFFICE	PROJECT OFFICE
IRCON INTERNATIONAL LIMITED (A Govt. of India Undertaking) C-4, DISTRICT CENTRE, SAKET, NEW DELHI-110017 Phone: +911129565666; FAX: +911126522000,+911126854000 E-mail: ircon.s1800021@ircon.org Web: www.ircon.org CIN: L45203DL1976GOI008171	IRCON INTERNATIONAL LIMITED (A Govt. of India Undertaking) No. 12, Kinross Avenue, Colombo -04, Sri Lanka Phone: +94-11-2081315 E-mail: ircon.s1800021@ircon.org Web: www.ircon.org CIN: L45203DL1976GOI008171



CONTENTS

S N	Section	Description
1	Section-I	e-Procurement Notice
2	Section-II	Form of Bid
3	Section-III	Instructions to Tenderer
4	Section-IV	Appendix to Tender
5	Section-V	Special Condition of Contract (SCC)
6	Section-VI	General Conditions of Contract (GCC)
7	Section-VII	Technical Specification
8	Section-VIII	Certificate of Familiarization
9	Section-IX	Drawings
10	Section-X	Bill of Quantity (BOQ)
11	Section-XI	FINANCIAL e-BID (UPLOADED IN EXCELSHEET) (RATE AS PERCENTAGE BELOW/ABOVE/AT PAR BOQ RATE (AS A WHOLE) ARE TO BE FILLED ONLINE ONLY)

IRCON/S&T/1800021/12239



TECHNICAL BID

IRCON/S&T/1800021/12239



SECTION-I

(e-PROCUREMENT NOTICE)

IRCON/S&T/1800021/12239

**IRCON INTERNATIONAL LIMITED****(A Govt. of India Undertaking)**

No. IRCON/S&T/1800021/12239

Date: 15/04/2024

e- PROCUREMENT NOTICE
(National Competitive Bidding)

- 1.0 Chief General Manager/IRCON/Colombo, No. 12, Kinross Avenue, Colombo -04, Sri Lanka, E-mail ID- ircon.s1800021@ircon.org, Mob. No. +94716016213, for and on behalf of IRCON INTERNATIONAL LIMITED invites online bids on prescribed forms from bonafide Indian firms/companies having requisite experience and financial capacity for execution of the work detailed in the table given below. The bidder is advised to examine carefully all instructions including addendum/corrigendum(s), condition of contract data, forms, terms, technical specifications, bill of quantities in the bid document.
- 1.1 The brief particulars of the Project and the tender are as follows in the Key Information Table (KIT):

SN	Particular	Details/ Reference of Clause
1.	Name of Work	Design, Supply, Installation, Testing and Commissioning of Electronic Interlocking Based Signaling and Telecommunication System including single line automatic block signaling from Maho to Anuradhapura section of Sri Lanka Railway.
2.	Estimated Cost of Work	\$ 8,501,177
3.	Completion Period	Ten months (Ref SCC Clause 8)
4.	Publishing Date	15.04.2024 at 17:30 Hrs.
5.	Bid Document Download/ Start Date	15.04.2024 at 17:30 Hrs.
6.	Clarification Start Date & Time	16.04.2024 at 11:30 Hrs.
7.	Clarification End Date & Time	22.04.2024 at 17:30 Hrs.
8.	Email for receiving Pre-bid queries	ircon.s1800021@ircon.org
9.	Last date for receiving Pre-bid Queries	29.04.2024 at 17:30 Hrs.

IRCON/S&T/1800021/12239



10.	Pre-bid Meeting Date, Time & Venue	30.04.2024 at 11:00 Hrs. IRCON INTERNATIONAL LIMITED No. 12, Kinross Avenue, Colombo -04, Sri Lanka Phone: +94-11-2081315
11.	Bid Submission Start Date & Time	03.05.2024 at 09:00 Hrs.
12.	Bid Submission End Date & Time	09.05.2024 at 15:00 Hrs.
13.	Bid Opening Date & Time	10.05.2024 at 15:00 Hrs.
14.	Type of Tender	Open
15.	No. of Packets	Two Packet
16.	e-Procurement Portal	https://etenders.gov.in/eprocure/app
17.	Fee for participating in the bidding (Non-Refundable)	\$ 609.00 (refer e-Procurement Notice Cl. 4.5)
18.	Earnest Money Deposit	\$ 49,814.00 (refer ITT Cl. 9)
19.	Tender Box location address to submit physical document, if any	IRCON INTERNATIONAL LIMITED, No.12, Kinross Avenue, Colombo -04, Sri Lanka
20.	Validity of the Bid	90 days after the date of opening (Technical Bid) of the tender.
21.	Place of Registration of firm/company:	Anywhere in India
22.	Whether Joint Venture (JV) is permitted or not.	Not Permitted
23.	Maximum no. of JV members allowed.	NA
24.	Client/ Owner Name	Sri Lanka Railway
25.	Employer/ Executing Agency Name & address	IRCON INTERNATIONAL LIMITED, No.12, Kinross Avenue, Colombo -04, Sri Lanka
26.	Scope of Work.	Refer SCC Cl. 2
27.	Purchase Preference to MSEs.	Not Applicable
28.	Pro-forma for Statement of Minor Deviations.	Annexure-IV(A) of ITT (refer ITT Cl 6 & 7)
29.	Statement of Minor Deviations with Price in the Financial Bid.	Annexure-IV(AA) of Bill of Quantity (refer ITT Cl 6 & 7)
30.	Performance Guarantee	10 % of Contract Value IN USD (Refer Cl. 13.0 of SCC)
31.	Security Deposit/Retention money	Refer Cl. 13.1 of SCC
32.	Insurance	Refer Cl. 11.0 of SCC
33.	Price Variation	Refer Cl. 7.0 of SCC
34.	Submission of Performance Guarantee	Within 21 days from the date of issue of Letter of Acceptance (LOA) (refer Cl. 13.0 of SCC)

IRCON/S&T/1800021/12239



35.	Defect Liability Period	12 months
36.	Comprehensive Warranty Period	36 Months after DLP
37.	Signing of Agreement	Within 28 days from the date of issue of Letter of Acceptance (LOA) (refer Cl. 15 of SCC)

- 2.0 Website <https://etenders.gov.in/eprocure/app> may be referred for detailed terms and conditions of the bidding documents, which is available online. Amendments/Corrigendum/Addendum, if any would be hosted on the website only.

3.0 **ELIGIBILITY CRITERIA:**

Eligibility of the applicants shall be assessed based on the “Essential Qualifying Criteria” as given in Annexure-V of “Instructions to Tenders”

4.0 **Accessing of Bid Documents & Fee for participating in the bidding**

- 4.1 The complete Bid Document can be viewed / downloaded from the e-Procurement portal i.e. <https://etenders.gov.in/eprocure/app> free of cost.
- 4.2 Help for contractors, FAQ, Information about DSC and Bidders Manual Kit containing the detailed guidelines for e-Procurement system is also available on Central Public Procurement portal.
- 4.3 It is mandatory for all the bidders to have a valid class-III Digital Signature Certificate (in the name of person having power of attorney to sign the Bid) from any of the licensed Certifying Agency (Bidders can see the list of licensed CA's from the link www.cca.gov.in) to participate in e-Procurement of IRCON.
- 4.4 It is mandatory for the bidders to get their firm/ company registered with e-procurement portal <https://etenders.gov.in/eprocure/app> to have user ID & password. A firm/ company who has registered with the e-Procurement portal as a single entity in the individual capacity can submit the tender either as individual firm/ company or joint venture/ consortium, if JV/ consortium is permitted.
- 4.5 Tender documents will be available online on website <https://etenders.gov.in/eprocure/app> as per date mentioned in Key Information Table (KIT) which can be downloaded free of cost. However, to participate in the online bidding process, bidders are required to pay a non-refundable fee of \$ **609.00 (Six Hundred nine dollars only)** towards the cost of one set of tender document in IRCON's Bank account No. 923020010763643, SWIFT CODE-AXISINBB160, AXIS Bank LTD. E-146, Saket, New Delhi, India-110017
- 4.5.1 Amount must be credited in IRCON's bank account before the Bid Submission End date and time mentioned in para 1.1 (12) of e-procurement Notice. Any tender received without Full amount of TENDER COST shall not be opened and shall be summarily rejected.

IRCON/S&T/1800021/12239



- 4.5.2 Bank Charges if any shall be borne by bidder, bidder shall ensure that full amount of \$609 must be credited in IRCON's bank account.
- 5.0 Instructions to Bidders for Online Bid Submission on the e-Procurement Portal <https://etenders.gov.in/eprocure/app>.
- Bidders may download and refer the "Instructions for online Bid Submission" from (<https://etenders.gov.in/eprocure/app;jsessionid=F90A7689A0BF87EF35B88D2CA57C6FD4.cppsugp2?page=StandardBiddingDocuments&service=page>).
- 6.0 Pre-bid meeting**
- 6.1 A pre-bid meeting of the interested prospective bidders shall be convened on the date and venue mentioned above in the Key Information Table.
- 6.2 Contractor shall make a minimum 2 days program for pre-bid meeting, there will be site visit on day one and next day there will be pre-bid meeting in Colombo-Sri Lanka.
- 6.3 The purpose of the pre-bid meeting is to clarify issues and to answer questions on any matter that may be raised.
- 6.4 The bidder is requested to submit his queries in writing either by post/ by hand/by email@ email id mentioned in Key Information Table above so as to reach this office not later than two days before the pre-bid meeting.
- 6.5 Any prospective bidders desirous of attending the pre bid meeting shall send a letter of authority on its letter head specifying the name and designation of the person who will be attending the pre bid meeting on its behalf to the Tender Inviting Authority as mentioned in clause no. 1.0 above. Any such letter of authority shall reach IRCON at least three days before the date of pre-bid meeting.
- 7.0 IRCON may issue addendum(s)/corrigendum(s) to the tender documents. In such case, the addendum(s)/corrigendum(s) shall be issued and placed on website <https://etenders.gov.in/eprocure/app> at any time before the closing time of tender. The tenderers who have downloaded the tender documents from website must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them. This shall be the responsibility of the prospective registered bidders to keep checking the web site for any such corrigendum/ addendum till the bid submission end date and time, and ensure that bid submitted by them are in accordance with all the corrigendum(s)/ addendum(s). Suitable time extension (not less than 3 days beyond the date of last amendment) for submission of bids will be granted.
- 8.0 The tender documents shall be submitted online in the prescribed format given on the website and technical bids received online shall be opened as per date mentioned in Key Information Table (KIT) or Corrigendum thereof. No other mode of submission is acceptable. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Bill of Quantities are to be submitted in "Technical Bid". Bill of Quantities with rates duly filled in along with Proforma for



statement of minor deviations (Annexure-IVAA) with price adjustment for each deviation(s) duly filled in are to be submitted in the format provided online in the name of "Financial Bid". Hence, physical submission of the documents is limited to submission of original Earnest Money Deposit in the form of Pay Order/ Demand Draft/ Fixed Deposit Receipt/ Bank Guarantee as per provision given in sub-clause 9.1 of Instructions to Tenderers. Representative of the bidder, who wish to attend in person, may attend the online opening of the bids on the scheduled date and time of Bid opening by IRCON Officials. However, such representatives shall be allowed to attend the opening of the Bids, only, if such person presents the letter of authority issued in his name by the bidder on his letter head.

- 9.0 Bidders cannot submit the tender after the due date and time of e-bid submission. Time being displayed on Central Public Procurement Portal <https://etenders.gov.in/eprocure/app> ("Server System Clock Time") shall be final and binding on the bidder. e- Bids are required to be submitted by bidders, only as per the Indian Standard Time (IST) and not the time as per their location/country.
- 10.0 The bidders are advised to submit their e-bids well before the e-bid due date. IRCON shall not be responsible for any delay in submission of e-bids for any reason including server and technical problems.
- 11.0 The Technical and Financial Bid shall be digitally signed by the Authorized Signatory of the bidder & submitted "on-line" only. The authorized signatory of the bidder must be in possession of Power of Attorney before submitting the digitally signed bid. Scanned copies of various documents can be prepared in different file format (PDF, JPEG).
- 12.0 Tender shall be submitted as per "Instructions to Tenderers" forming a part of the tender document.
- 13.0 **Any tender received without Earnest Money of \$ 49814 in the form as specified in para 9.1 of instructions to tenderers shall be summarily rejected.**

Bank Charges if any shall be borne by bidder, bidder shall ensure that full amount of \$49814 must be credited in IRCON's bank account before bid submission end date and time.
- 14.0 IRCON reserves the right to cancel the tenders before submission/opening of tenders, postpone the tender submission/opening date and to accept/reject any or all tenders without assigning any reasons thereof. IRCON's assessment of suitability as per eligibility criteria shall be final and binding.
- 15.0 Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such tenderer shall be forfeited. The decision of IRCON in this regard shall be final and binding.

IRCON/S&T/1800021/12239



- 16.0 IRCON reserves the right to pre-qualify the bidder(s) provisionally based on the documents submitted by them and open financial bid(s), subject to their final verification. In the event of any document being found false, the provisional qualification shall stand withdrawn, and the next lower bidder shall automatically come to the position of such disqualified bidder. Action against such disqualified tenderers shall be taken as per above clause no. 15.0 of e-Procurement Notice.
- 16.1 The tenderers shall submit affidavit stating that all their statements/ documents submitted along with bid are true and correct. Standard format of affidavit to be submitted by the bidder is enclosed as Annexure-IV. Non submission of above affidavit by the bidder shall result in summarily rejection of his/ their bid.
- 17.0 The validity of the offer shall be for the period indicated in Key Information Table (KIT) in Para 1.1 of e-Procurement Notice" after the date of opening (Technical Bid) of the tender.
- 18.0 Public Procurement (Preference to Make in India), Order 2017

Not applicable being work to be done in Sri Lanka and product to be approved by Sri Lanka Railway

**For & on behalf of
IRCON INTERNATIONAL LIMITED**

Chief General Manager
No.12, Kinross Avenue,
Colombo -04, Sri Lanka
Phone: +94-11-2081315
E-mail ID: ircon.s1800021@ircon.org
Mob. No. +94716016213

IRCON/S&T/1800021/12239



SECTION-II (FORM OF BID)

IRCON/S&T/1800021/12239



FORM OF BID

To

IRCON INTERNATIONAL LIMITED,

Acting Through
Chief General Manager/IRCON
No.12, Kinross Avenue,
Colombo -04, Sri Lanka

Dear Sir,

I/We, _____ (Name and address of the tenderer) have read the various terms and conditions of the e-Procurement documents attached here with duly signed by me/us and agree to abide by the same. I/We also agree to keep this tender open for acceptance **within the period of the validity of bids** and on default thereof our Earnest Money is liable to be forfeited.

I/We hereby declare that we have visited the site of the work and have made ourselves fully conversant of the conditions therein and including the topography of area, soil strata at site of work, sources and availability of construction materials, rates of construction materials, water, electricity, all local taxes, royalties, octroi etc., availability of local labour (both skilled and unskilled), relevant labour rates and labour laws, the existing road and approaches to the site of work, requirements for further service roads / approaches to be constructed by me / us, the availability and rates of private land etc. that may be required by me / us for various purposes, climatic conditions, law and order situation and availability of working days.

I/We have quoted our rates for various items in the Bill of Quantities taking into account all the above factors and I/We offer to do the work **“Design, Supply, Installation, Testing and Commissioning of Electronic Interlocking Based Signaling and Telecommunication System including Single Line Automatic Block Signaling from Maho to Anuradhapura section of Sri Lanka Railway.”** at the rates quoted in the attached Bill of Quantities and hereby bind ourselves to complete the work in all respects within time schedule depicted in tender documents from the date of issue of letter of acceptance of tender.

I/We also understand that until a formal Contract Agreement is executed, Letter of Acceptance along with all tender documents shall constitute a binding contract between me/us and Ircon International Limited.

Our Bank Account No. for the purpose of refund of EMD in USD is (Account No.-----, Name of A/C Holder-----, SWIFT CODE-----, other details.

Thanking you,

Yours Faithfully,

Signature_____ and name of the signatory_____ in capacity
of_____ duly authorized to sign bids for and on behalf of:

Date this_____ day of _____ 2024 (In Block capital letters)

IRCON/S&T/1800021/12239



SECTION-III

(INSTRUCTIONS TO TENDERERS)

IRCON/S&T/1800021/12239



Section III: Instructions To Tenderers

Table of Clauses

Clause No.	Description
A.1	General
A.2	Cost of Bidding
B.	The Bidding Documents
B.3	Content of Bidding Documents
B.4	Understanding and Amendment of Tender Documents
C.	Preparation of the Bids
C.5	Language of Bid
C.6	Signing of All Bid papers and Completing Bill of Quantities
C.7	Deviations
C.8	Submission of tender documents
C.9	Earnest Money
C.10	Integrity Pact- Not Applicable
C.11	Period of validity of the tender
D.	Submission of Bids
D.12	Deadline for submission of tender
D.13 & 14	Modification/ Substitution/ Withdrawal of tender
D.15	Parts of tenders
E.	e- Bid opening and Evaluation
E.16	Opening of the tender
E.17	Clarification of the tenders
E.18	Preliminary Examination of bids
E.19	Evaluation and comparison of tenders
E.20	Canvassing
E.21	Right to accept any tender or reject all tenders
E.23	Award of Contract
E.24	Contractor Performance Feedback and Evaluation System
E.25	Ineligibility to participate in re-tenders/ future cases
E.26	Bidder non-eligibility for participation in tender & Declaration of non-performance or ban status
E.27	Consequences of misrepresentation
Annexure-I	Details of the Bidder
Annexure-II	Assessment of Performance of working subcontractor
Annexure-III	Assessment of Performance of working consultant- Not Applicable
Annexure-IV	Format of Affidavit to be signed by the tenderer
Annexure-IV(A)	Pro-forma for Statement of Minor Deviations
Annexure-V	Essential Qualifying Criteria
Annexure-VI	Integrity Pact- Not Applicable
Annexure-A	List of Relatives
Annexure-B	Procedure for Suspension/Banning of Business Dealings with agencies in IRCON

IRCON/S&T/1800021/12239



Annexure-VII	Check list for list of documents to be scanned, uploaded with the e-tender and submitted online not later than the prescribed date and time for e-bid submission.
Format-1	Details of similar works completed in last seven years
Format-2	Revenue from Operations for the last three years
Format-3	Programme for deployment of manpower
Format-4	Programme for deployment of plant and machinery proposed to be deployed on the project- Not Applicable
Format-5	Maximum value of work executed & payment received
Format-6	Existing Commitment and Ongoing Construction Works



INSTRUCTIONS TO TENDERERS (ITT)

A.

1. General

- 1.1. Name of the Work: As indicated in 'Key Information Table (KIT) in Para 1.1 of e-Procurement Notice'.
- 1.2. "A bidder in the capacity of Individual or Sole Proprietor, Partnership Firm, or Company/ Joint Venture (JV) (if permitted as per clause 1.2.2 below) can participate in the tender and the bidder must upload copies of the constitution of its firm such as Partnership Deed, Registration Certificate, Memorandum & Articles of Association, etc., as applicable, MOU/ Joint Venture agreement, if applicable, duly attested by the authorized signatory along with Power of Attorney of authorized signatory, signing the e-bid documents digitally as well as manually, duly attested by Notary Public"
 - 1.2.1 Place of Registration of firm/ company as indicated in "Key Information Table (KIT) in Para 1.1 of e-Procurement Notice".
 - 1.2.2 Please refer Key Information Table (KIT) in Para 1.1 of e-Procurement Notice to check whether Joint Venture (JV) is permitted or not permitted to participate in the tender.
 - 1.2.3 Foreign bidder as a single entity is not permitted to participate in the national competitive bidding, if it is not legally valid firm/ company registered in India as per Indian laws. However, if Joint Venture is permitted in this tender as per sub-clause no. 1.2.2 above, then foreign bidder can participate as a member of JV. Foreign bidder from a country which shares land border with India also has to satisfy the requirements mentioned in sub-clause 1.3 below
 - 1.2.4 Joint Venture Clause – **Not Applicable.**
 - 1.2.5 **Participation of Partnership Firms:**
 - 1.2.5.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
 - 1.2.5.2 The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized as per the Indian Partnership Act, prior to submission of tender.
 - 1.2.5.3 Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN / TAN number in the



name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.

- 1.2.5.4 Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from the Employer and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the Employer and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after submission of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited.

If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform the Employer beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 23 of the Special Conditions of Contract.

- 1.2.5.5 A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.
- 1.2.5.6 The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm. The Bid Security submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
- 1.2.5.7 On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.
- 1.2.5.8 On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.
- 1.2.5.9 In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement

IRCON/S&T/1800021/12239



a) Joint and several liabilities:

The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the Employer for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the Employer during the course of execution of the contract or due to non-execution of the contract or part thereof.

b) Duration of the partnership deed and partnership firm agreement:

The partnership deed/partnership firm agreement shall normally not be modified/alterd/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of the Employer, shall constitute a breach of the contract, liable for determination of the contract under Clause 50 of the Standard General Conditions of Contract.

c) Governing laws:

The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.

d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the Employer

1.3. **Not Applicable**

1.4. The work is proposed to be executed under the following relationship.

- a) Client/Owner: As indicated in 'Key Information Table (KIT) in Para 1.1 of e-Procurement Notice.
- b) Employer/Executing Agency: As given in 'Key Information Table (KIT) in Para 1.1 of e-Procurement Notice'
- c) Contractor: The successful tenderer to whom the work is awarded shall become the contractor for the execution of this work.

1.5. Throughout these bidding documents, the terms "bid" and "tender" and their derivatives ("bidder"/ "tenderer"), "bid/tendered", "bidding"/ "tendering", etc.) are synonymous. Day means calendar day. Singular also means plural.

1.6. Scope of Work: As indicated in 'Key Information Table (KIT) in Para 1.1 of e-Procurement Notice.

IRCON/S&T/1800021/12239



The scope of work in KIT is only indicative. The detailed scope has been described in the tender documents.

- 1.7. Approximate Estimated cost of the work is as indicated in the 'Key Information Table (KIT)' in Para 1.1 of e-Procurement Notice.
- 1.8. A bidder shall submit only one bid in the capacity of an Individual or Sole Proprietor, Partnership firm, or Company or Joint Venture (if permitted in the tender). In case joint venture is permitted in the tender in terms of sub-clause 1.2.2 above, a member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender. Violation of this condition is liable to disqualify the tenders in which such bidder has participated and EMD of all such tenderers shall stand forfeited.

2. Cost of Bidding

The bidder shall bear all costs associated with the preparation and submission of the bid and the Employer will in no case be responsible or liable for these costs regardless of the conduct or the outcome of the bidding process.

e) The Bidding Documents

3. Content of bidding documents

Tenderers must use the formats available in technical bid and financial sheets available in excel format in this Tender Document for submission of their Technical as well as Financial Bid. Any Bid not conforming to the prescribed format is liable to be declared non-responsive.

3.1. The bidding documents include the following:

- e- Procurement Notice
- Form of Bid
- Instructions to Tenderers
- Appendix to Tender
- Special Conditions of Contract
- General Conditions of Contract
- Technical Specifications
- Certificate of Familiarization
- Drawings
- Bill of Quantities
- Financial Bid

- 3.2. The bidder is expected to examine all instructions, terms, conditions, forms, specifications, corrigendum/addendums, and other information in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the bidders' risk and may result in rejection of his bid.



4. Understanding and Amendment of Tender Documents

- 4.1. The bidder must obtain for itself on its own responsibility and its own cost all the information including risks, contingencies & other circumstances in execution of the work. It shall also carefully read and understand all its obligations & liabilities given in tender documents.
- 4.2. The bidder is advised to visit and examine the site where the work is to be executed and its surroundings or other areas as deemed fit by the bidder and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and execution of the contract. The cost of visiting the site and collecting relevant data shall be at the bidder's own expenses. It is a condition of the tender that the tenderer is deemed to have visited the site and satisfied himself with all the conditions prevailing including any difficulties for executing the work.
- 4.3. Bidders will examine the various provisions of The Central Goods and Services Tax Act, 2017 (CGST)/ Integrated Goods and Services Tax Act, 2017 (IGST)/ Union Territory Goods and Services Tax Act, 2017 (UTGST)/ respective state's State Goods and Service Tax Act (SGST) also, as notified by Central/State Government and as amended from time to time and applicable taxes before bidding. Bidders will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- 4.4. The successful bidder who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to IRCON immediately after the award of contract, without which no payments shall be released to the contractor. The contractor shall be responsible for deposition of applicable GST to the concerned authority.
- 4.5. In case the successful bidder is not liable to be registered under CGST/IGST/UTGST/SGST Act, IRCON shall deduct the applicable GST from his/their bills under Reverse Charge Mechanism (RCM) and deposit the same to the concerned authority.
- 4.6. At any time prior to the deadline for submission of bids, Employer may for any reason whether at its own initiative or in response to any request by any prospective bidder amend the bidding documents by issuing Corrigendum(s)/ Addendum(s), which shall be part of the tender documents.
- 4.7. Employer may at its discretion extend the deadline for submission of the bids at any time before the time of submission of the bids.

f) Preparation of the Bids

5. Language of Bid

The bid prepared by the bidder and all documents related to the bid shall be written in English.



6. Signing of All Bid papers and Completing Bill of Quantities

- 6.1. It shall be deemed that e-bid uploaded by the tenderer is digitally signed by his authorized representative holding the Power of Attorney.
- 6.2. While filling up the rates/ percentage in the Bill of Quantities, tenderer shall ensure that the rates/ percentage, as applicable, are filled up in figures only. System will automatically convert such filled up rates/ percentage into words. In case of item rate/percentage tenders, the system will automatically calculate the total price by multiplying the unit rate with quantity/ quoted percentage with estimated cost put to tender.
- 6.3. The bid should be submitted online only in the prescribed format given in the e-procurement portal of IRCON. No other mode of submission is accepted. The each page of Technical and Financial Bid shall be digitally signed by the authorized signatory of the bidder before uploading/submitted "online". **No hard copy of Technical and Financial bid is required to be submitted except the documents as specified in Annexure VII of ITT.**

The tenderer may download financial bid form & Pro-forma for Statement of minor deviations (Annexure 'IV(AA)' to financial bid) and upload the same duly filled through online e-Procurement process.

The tenderer must fill and submit the prices as per instructions given in Bill of Quantities and Pro-forma for Statement of minor deviations. The system does not permit any addition or alteration in the tender documents. The requisite details should be filled in by the tenderer wherever required in the documents. Incomplete tender or tender not submitted as per instructions is liable to be rejected.

The price of each minor deviation mentioned in the Pro-forma for statement of minor deviations will be the price which the tenderer agrees to offer to the employer from his quoted offer in BOQ if deviation is agreed by the employer. Any such deviation without a price shall not be considered and will be treated as withdrawn by the tenderer. Any other deviation mentioned anywhere in the submission other than in Annexure-IV(A) of Instructions to Tenderer shall be considered as if mentioned inadvertently by the tenderer and shall be considered as withdrawn without any confirmation from the tenderer

7. Deviations

- 7.1. The tenderer should clearly read and understand all the terms and conditions, specifications, drawings, etc. mentioned in the original tender documents.

The tenderer may submit minor deviations in Annexure IV(A) and a confirmation that price of every such minor deviation has been given in the financial bid/Bill of Quantity (BOQ). Minor deviation may be in the employer's requirements or in any other tender requirement which do not alter the basic functionality of the work or part thereof. If there is no such minor deviation, then the tenderer must write "NIL" in this Annexure.

IRCON/S&T/1800021/12239



Tenderer to note that such minor deviations may or may not be accepted by the employer and the tenderer shall not have any right to any claim on this account. The offer in BOQ shall be given without considering any deviation in tender conditions. The lowest bidder will be decided without considering any deviation in the tender conditions. If the lowest bidder has given some minor deviations then the Employer has right to accept some or all such minor deviation and the offer of the lowest bidder will be reduced by the price of such accepted deviations (Tenderer to see note 1 of Annexure-IV(A) of ITT).

8. Submission of tender documents

Tender Documents will be received in electronic form only after payment of Tender document fee.

9. Earnest Money

9.1. The Earnest Money may be in any one of the following forms:

- a) Pay Order/Demand Draft of any Scheduled Bank in India in favour of Ircon International Limited.
- b) Fixed Deposit Receipt issued by any Scheduled Bank in India endorsed in favour of IRCON INTERNATIONAL LIMITED.
- c) Online transfer in IRCON's bank account No. 923020010763643, SWIFT CODE-AXISINBB160, AXIS Bank LTD. E-146, Saket, New Delhi, India-110017
 - EMD Amount must be credited in IRCON's bank account before the Bid Submission End date and time mentioned in para 1.1 (12) of e-procurement Notice. Any tender received without Full amount of EMD shall not be opened and shall be summarily rejected.
 - Bank Charges if any shall be borne by bidder, bidder shall ensure that full amount of \$49814 must be credited in IRCON's bank account.
 - No interest shall be allowed on Earnest Money Deposit.
- d) EMD may also be deposited in the form of irrevocable Bank Guarantee valid for minimum 180 days beyond the last date of submission of bid, issued by a Scheduled Bank, as per the format enclosed at Annexure VIII to 'SCC'. B.G. not valid for 180 days beyond the last date of submission of bid, will not be considered a valid EMD instrument.
 - The scheduled bank issuing the Bank Guarantee must be on the Structure Financial Messaging System (SFMS) platform. A separate advice of the B.G. shall invariably be sent by the issuing bank to the Employer's Bank through SFMS

IRCON/S&T/1800021/12239



and only after this, the B.G. shall become operative and acceptable to the Employer.

- Original Bank Guarantee must be received in the tender box at the address given in key information table before the bid submission end date and time mentioned in para 1.1 (12)

9.2. Forfeiture of Earnest Money:

9.2.1. The Earnest Money of the tenderer shall be forfeited if he withdraws his tender after opening of the tender during the period of tender validity specified in the 'Key Information Table (KIT) in Para 1.1 of e-Procurement Notice' or extended validity period as agreed to in writing by the tenderer.

9.2.2. The Earnest Money of the successful tenderer is liable to be forfeited if he fails to:

- sign the Contract Agreement in accordance with the terms of the tender, or
- furnish Performance Guarantee in accordance with the terms of the tender, or
- Commence the work within the time period stipulated in the tender.

9.2.3. In case of forfeiture of EMD, the tenderer shall be debarred from bidding in case of re-invitation of the tenders.

9.3. Return of Earnest Money:

9.3.1. The Earnest Money of the unsuccessful tenderers in the form of FDR/BG shall be discharged and returned as promptly as possible. Bank charges if any shall be borne by bidder.

9.3.2. The Earnest Money Deposit of the successful tenderer shall be dealt as under:

The Earnest Money Deposit of the successful tenderer shall be returned after submission of the Performance Guarantee in the acceptable form as per relevant contract conditions and verification of the same from the issuing bank.

10. Integrity Pact (IP)- Not applicable being work to be done in Sri Lanka

11. Period of validity of the tender

11.1. The tender shall remain valid for the period indicated in "Key Information Table (KIT) in Para 1.1 of e-Procurement Notice" after the date of the opening of the tender. If the Tenderer gives validity period less than that fixed/prescribed by Employer, the tender shall be liable to be rejected.

IRCON/S&T/1800021/12239



- 11.2. Notwithstanding the above clause, Employer may solicit the tenderer's consent to extend the validity period of the tender. The request and the response shall be made in writing.

g) Submission of Bids

12. Deadline for submission of tender

- 12.1. Earnest Money Deposit required in physical form, as per sub-clause 9.1 of "Instructions to Tenderers" must be received by Employer at the address specified in the "Key Information Table (KIT) in Para 1.1 of e-Procurement Notice" **not later than the prescribed date and time for e-bid submission.**
- 12.2. Tenderers must upload the good scanned copy of relevant documents required to be submitted on e-Procurement website as mentioned in the tender documents. The document which is not readable or legible will not be given cognizance. E-bids which are not supported by relevant documents shall not be considered during evaluation of bid.

13. Modification / Substitution / Withdrawal of tender

- 13.1. The tenderer may modify, substitute or withdraw his e-bid after online submission prior to the date and time of e-bid opening.
- 13.2. For modification of e-bid, bidder has to upload / resubmit digitally signed modified e-bid in the CPP Portal (<https://etenders.gov.in/eprocure/app>).
- 13.3. For withdrawal of e-bid, bidder can withdraw his e-bid by clicking on withdrawal icon at e-procurement portal.
- 13.4. Before withdrawal of an e-bid, it may specifically be noted that after withdrawal of an e-bid for any reason, tender fee will not be refunded. The bidder trying to re-submit the e-bid will have to pay the cost of tender document again.

- 14.** Submission of an e-bid by a tenderer implies that he had read all the tender documents including amendments if any, visited the site and has made himself aware of the scope and specifications of the work to be done, local conditions and other factors having any bearing on the execution of the work.

15. Parts of tenders

- 15.1. All documents/ forms/instructions/specifications etc. listed in item 3.1 of this Instruction to Tenderers and those attached as per the Annexure VII are deemed to be a part of the bid/tender and accepted by the bidder.
- 15.2. In case of any ambiguity, IRCON will be free to seek confirmation of information from the issuer of the document

IRCON/S&T/1800021/12239



h) e-Bid opening and Evaluation

16. Opening of the tender

- 16.1 Tenders will be opened at the address mentioned in “e-Procurement Notice” in presence of tenderers or authorized representatives of tenderers who wish to attend the opening of tenders. Physical presence during e-bid opening is optional.
- 16.2 Tenderers or their authorized representatives who are present shall sign register in evidence of their attendance.
- 16.3 Tenderer’s name, presence or absence of requisite Earnest Money, total cost of work quoted or any other details as Employer may consider appropriate will be displayed with list to all participating bidders online after bid opening.

17. Clarification of the tenders

- 17.1. To assist the examination, evaluation and comparison of the tenders, Employer may at his discretion ask the tenderers for any clarifications as considered essential. All such correspondence shall be in writing and no change in price or substance of the tender shall be sought or permitted. The above clarification for submission of the details shall form part of the tender and shall be binding on tenderer.

18. Preliminary examination of bids

- 18.1 The Employer shall examine the bids to determine whether they are complete, whether physical copy of all the relevant documents have been scanned, uploaded and Earnest Money Deposit in original form received **not later than the prescribed date and time for e-bid submission** and generally they are in order.
- 18.2 Prior to the detailed evaluation, Employer shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionality or reservation and for minor deviation details have been submitted in Annexure ‘IV(A)’ in terms of clause 7.1 above and cost of withdrawal of minor deviations (if any) has been quoted in the Proforma for statement of minor deviation attached with the financial bid. A material deviation, objections, conditionality or reservation is one;
 - i) That affects in any substantial way the scope, quality or performance of the contract.

IRCON/S&T/1800021/12239



- ii) That limits in any substantial way, inconsistent with the bidding documents, the Employers' rights or the successful Bidder's obligations under the contracts; or
- iii) whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.

18.3 If an e-bid is not substantially responsive, it shall be rejected by the Employer.

18.4 In case of tenders containing any conditions or deviations or reservations about contents of tender document, Employer may ask for withdrawal of such conditions/ deviations/ reservations. If the tenderer does not withdraw such conditions/ deviations/ reservations, the tender shall be treated as non-responsive. Employer's decision regarding responsiveness or non-responsiveness of a tender shall be final and binding.

19. Evaluation and comparison of tenders

- 19.1. Bids, which are determined as substantially responsive, shall be evaluated based on Essential Qualifying Criteria as given in the tender document. The tenderer must scan and upload all necessary authentic data with necessary supporting certificates of the various items of evaluation criteria failing which his tender is liable to be rejected.
- 19.2. After evaluation of substantially responsive technical bids, list of provisionally qualified bidders shall be submitted to client i.e. Sri Lanka Railway for their approval, firms shall be approved by client and after approval of client, financial bids of approved firms will be opened.
- 19.3. The lowest bidder will be decided without considering any deviation in the tender conditions. If the lowest bidder has given some minor deviations, then the Employer has right to accept some or all such minor deviation and the offer of the lowest bidder will be reduced by the price of such accepted deviations (Tenderer to see note 1 of Annexure-IV(A) of ITT).
- 19.4. The Employer/Engineer reserves the right to negotiate the offer submitted by the tenderer to withdraw certain conditions or to bring down the rates to a reasonable level. The tenderer must note that during negotiations of rates of items of BOQ can only be reduced and not increased by the tenderer. In case the tenderer introduces any new condition or increases rates of any item of BOQ, his negotiated offer is liable to be rejected and the original offer shall remain valid and binding on him.

20. Canvassing

- 20.1. No tenderer is permitted to canvass to Employer on any matter relating to this tender. Any tenderer found doing so may be disqualified and his bid may be rejected.

21. Right to accept any tender or reject all tenders



Employer/Engineer reserves the right to accept, split, divide, negotiate, cancel or reject any tender or to annul and reject all tenders at any time prior to the award of the contract without incurring any liability to the affected tenderers or any obligation to inform affected tenderer, the grounds of such action.

22. If the tenderer, as individual or as a partner of partnership firm, expires after the submission of his tender but before award of work, the Employer/Engineer shall deem such tender as invalid.

23. Award of Contract

- 23.1. Employer/Engineer shall notify the successful tenderer in writing by Courier/ Speed Post or per bearer or delivering the same by e-mail.
- 23.2. Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between Employer/Engineer and the contractor till such time the contract agreement is signed.

24. Contractor Performance Feedback and Evaluation System

The employer will have a 'Contractor Performance Feedback and Evaluation System' for periodic evaluation of Contractors performance during execution of Contract. In case contractor's overall performance is found unsatisfactory (<85% for Works Contracts and ~~<75% for Consultancy Contracts~~) based on the parameters as listed in Annexure 'II' and 'III' respectively, the Contractor is liable to be declared a 'Non-Performer', and will become ineligible for participation in future tenders of this Organization for a period of 2 (two) years from the date of such decision. This decision is to be conveyed to the Contractor in writing. The non-performer status may be revoked during currency of the contract on improvement of performance parameters during the next annual review.

This is without prejudice to any other recourse available to the Employer under the Conditions of Contract.

25. Ineligibility to participate in re-tenders/ future cases

Notwithstanding anything contained in the Qualification Clauses of ITT, if a bidder withdraws from an offer after having been declared a preferred bidder or after Notification of Award or does not sign the Contract Agreement pursuant to the Letter of Acceptance or does not submit an acceptable Performance Guarantee which results in tender being annulled then such bidder shall be treated as ineligible for participation in re-tendering of this particular work and also for any other work for a period of 6 (six) months. A repeat incident of similar type within a period of 2 (two) years will render the bidder ineligible for participation in all future tenders for a further period of 2 (two) years.

IRCON/S&T/1800021/12239



26. Bidder non-eligibility for participation in tender & Declaration of non-performance or ban status or termination

26.1 Tenderers including any partner of JV/MOU (in case of JV/MOU permitted in the tender) are not eligible to participate in the tender process under the following conditions:

- a) They have been declared a non-performer by Central/ State Government Department in India including authority controlled by them during the last two years prior to the date of bid submission.
- b) They are currently debarred for tendering, blacklisted, suspended in Central/ State Government Department in India including authority controlled by them.
- c) Any previous contract awarded to them has been terminated by IRCON or its subsidiaries, during the last two years prior to the date of bid submission.
- d) The bidder (any partners of JV, in case JV is permitted in the tender) is in Corporate Insolvency Resolution Process (CIRP)/ liquidation/ Winding up/ CDR/SDR/S4A/Flexible Structuring or any other restructuring scheme due to financial stress and is in default on any debt obligations on the bid due date. An undertaking of bidder (All partners of JV in case JV is permitted in the tender) (duly certified by the statutory auditor of the bidder with UDIN where the accounts are audited. In other cases the same may be certified by Chartered Accountant with UDIN) must be submitted along with the bid.

26.2 Declaration of non-performance or ban status or termination

Accordingly, tenderers are required to sign an Affidavit as per the enclosed pro-forma in Annexure-'IV', declaring their status of non-performance or debarment/ termination or Corporate Resolution Process/ liquidation/ Winding up/ CDR/SDR/S4A/ Flexible Structuring or any other restructuring scheme due to financial stress or in default on any debt obligations.

27. Tenderer to be fully responsible for the consequences of misrepresentation

- a. Any suppression of information and misrepresentation will render the tenderer ineligible for the tender along with the forfeiture of Earnest Money. The tenderer will also be liable for disqualification for future tenders of IRCON and its subsidiaries for a period of 2 years.
- b. If any suppression of information and misrepresentation is found after the award of Contract, the Contract may be terminated with forfeiture of EMD, PG and SD (if any). The Contractor will also be disqualified for future tenders of IRCON for a period of 2 years.

IRCON/S&T/1800021/12239



Annexure -'I'

DETAILS OF THE BIDDER

1	Name of the Bidder	
2	Name and designation of authorized signatory	
3	Registered Address of the bidder	
	Land Line Telephone Number with STD Code	
	FAX Number with STD Code	
	Mobile Number	
	Email address of authorized signatory	
	Email address of the head of the company	
3	Address for communication	
	Land Line Telephone Number with STD Code	
	Land Line Telephone Number with STD Code	
	FAX Number with STD Code	
	Email address	
4	Banker's Details for Payment	
	Name of bank	
	Name and mobile number of bank officer	
	Account No.	
	IFSC CODE	
	SWIFT CODE	
	Telephone No. with STD Code of branch	
	E-mail Address of bank	

**Annexure -'II'**

(Ref. Clause 24 of 'Instructions to Tenderers')

ASSESSMENT OF PERFORMANCE OF WORKING CONTRACTOR

SN	Description	Weightage		Remarks
		Assigned	Obtained	
1	Resource Management/Financial Status			
1.1	Timely mobilization of manpower, as per the requirement of work and/or as suggested by Engineer in writing	5		
1.2	Timely mobilization of machinery, as per the requirement of work and/or as suggested by Engineer in writing	5		
2	Physical Progress /Project Execution Capability	75		
	<p>Target vs Achieved review of the progress and adherence to milestones of the work as per above submitted & approved programme (may be judged as below, to be modified depending on availability of front/site or as indicated in Contract)</p> <p>At 33% time: >20%</p> <p>At 50% time: >40%</p> <p>At 100% time: >98%</p> <p>At 125% time: >100%</p>			
3	Quality Assurance Capability			
3.1	Documentation of procedures, work instructions, check list and adherence to the requirements of ISO 9001	2		
3.2	Rectification of defects/non-conformity to quality standards within 7 days: (Nos. mentioned in writing/Rectified within 7 days of writing)	4		
3.3	Implementation of corrective and preventive measures to control non-conformities/ rejections	4		
4	Claims and Disputes			
4.1	Raising unnecessary claims and litigation (Shall be graded negative)	5		
	TOTAL:	100		

**Annexure-'III'**

(Ref. Clause 24 of 'Instructions to Tenderers')

ASSESSMENT OF PERFORMANCE OF WORKING CONSULTANT – NOT APPLICABLE

S. No.	Description	Weightage		Remarks
		Assigned	Obtained	
1	Resource Management	15		
1.1	Mobilization time	5		Shall be immediate as per the submission
1.2	Deputation of qualified team leader - overall co-ordination	5		Person so nominated at the time of submission shall not be changed
1.3	Deputation of experienced staff for specific job/trade	5		Persons identified at the time of submission may not be changed
2	Quality Assurance	20		
2.1	Methodology of submission of drawing	5		There has to be a document stating the methodology of forwarding the drawing
2.2	Methodology to ensure that integrated drawings are issued and not in isolation	5		Working on the same platform and on the same corrected drawing
2.3	Formats for delivery stages of project	5		So as to segregate the drawings for info, tender and working drawings
2.4	Quality of submission – adequate detailing	5		Is there in house cross checking facility
3	Physical Progress	65		
3.1	Submission of detailed schedule of delivery with number of drawings to be submitted	5		This needs to be tweaked with construction programme.
3.2	Adherence to Milestones for various submissions	10		Important to ensure smooth working
3.3	Capability of change management and incorporation of changes	10		
3.4	Timely response to the queries			Important for execution and is measure of seriousness about the project
A	During design stage	5		
B	During execution stage	5		
3.5	Quality and detailing of Report	20		Speaks about the effort and sincerity
3.6	Timely submission of the reports/details/ calculations etc.	10		Mandatory for timely execution of the project
	TOTAL:	100		

IRCON/S&T/1800021/12239

**Annexure-IV'**

(Ref. Clause 1.3 of Instructions to Tenderers,
(Ref. Sub-clause 10.2, 10.4 and Clause 26 of ITT and Clause 6. of Essential Qualifying Criteria)

FORMAT AFFIDAVIT

(On non-judicial stamp paper of ₹100/- duly notarized)

I/we, the undersigned, do hereby solemnly affirm and declare that-

1. Neither our firm nor any of the members/ partners in any manner as an individual or the constituent partner in case of partnership firm have been declared non-performer by Central/State Government Department in India including Authority controlled by them during the last two years prior to the date of bid submission.
2. As on date our bid submission, neither our firm nor any of the members/ partners in any manner as an individual or the constituent partner in case of partnership firm are debarred for tendering, blacklisted, suspended in Central/State Government Department in India including authority controlled by them.
3. As on date our bid submission, neither our firm nor any of the members/partners in any manner as an individual or the constituent partner in case of partnership firm/JV are in Corporate Insolvency Resolution Process (CIRP)/liquidation/Winding up/CDR/SDR/S4A/Flexible Structuring or any other restructuring scheme due to financial stress and have not been in default on any debt obligations on the bid due date.
4. No contract agreement between IRCON or its wholly owned subsidiaries and either our firm or any of the members/partners in any manner as an individual or the constituent partner in case of partnership firm have been terminated on account of our default during the last two years prior to the date of our bid submission.
5. We have no objection to IRCON requesting to any bank, person, firm or body and any such agency furnishing pertinent information as deemed necessary or to verify this statement or regarding our competence and general reputation.
6. We understand that further qualifying information may be requested by IRCON and we agree to furnish any such information at the request of IRCON within the prescribed time.
7. We bind ourselves with all the stipulations of the Bidding Document including period of completion, provision of adequate equipment, personnel and other resources required for completion within the stipulated completion period and agree to augment any resources, if found necessary for timely completion of the project, as desired by the IRCON.
8. Certification on submitted/ Attached Documents/ Credentials:

IRCON/S&T/1800021/12239



- 8.1 That the facts stated and documents enclosed by us in the Bid are true and correct and we have not concealed/ suppressed any facts/ record/ documents and/ or misrepresented the facts/ record/ documents.
- 8.2 I/ We further declare and certify that I/ We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
- 8.3 I/ We also understand that my/ our offer will be evaluated based on the documents/ credentials submitted along with the offer and same shall be binding upon me/ us.
- 8.4 I/ We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
- 8.5 I/ We understand that if the certificates regarding eligibility criteria submitted by us are found to be forged/ false or incorrect or any suppression of information and misrepresentation is noticed at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides disqualification for future tenders of IRCON & its subsidiaries for a period of two years. Further, I/ We (insert name of the tenderer) ** and all my/ our constituents understand that my/ our offer shall be summarily rejected.
- 8.6 I/ We also understand that if the certificates submitted by us are found to be false/ forged or incorrect or any suppression of information and misrepresentation is noticed at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/ SD and Performance Guarantee besides any other action provided in the contract including disqualification for future tenders of IRCON & its subsidiaries for a period of two years.
9. We have read and understood all the provisions included in the Integrity Pact and abide by them, if applicable.
10. We have read and understood all the provisions included in the bid documents and abide by them.
11. 11.1 Model Certificate for Tenders

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a county, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration with the Competent Authority ~~nominated/ Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)~~ shall be attached.]"

11.2 Model Certificate for Tenders for Works involving possibility of sub-contracting

IRCON/S&T/1800021/12239



"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority ~~nominated/ Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIT)~~. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration with the Competent Authority ~~nominated/ Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIT)~~ shall be attached.]"

11.3 Model Certificate by Bidder in cases of specified Transfer of Technology (ToT)

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with competent authority"

OR

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement." [where applicable evidence of valid registration with the competent authority shall be attached.]

12. The information furnished by us is true and correct and we understand the consequences, in case, any of the information furnished is not found to be true/ correct and /or any suppression/ concealment of facts/ record or misrepresentation of facts/ record is noticed.

(Signed by the Authorized Representative of the Firm)

Name of the Authorized Representative.

Name of the Firm.

Dated:

This Affidavit shall be signed by all the partners of Partnership firm and all the members of Joint Venture (JV)/ MOU (if participation of JV/ MOU is permitted in the tender).

IRCON/S&T/1800021/12239



ANNEXURE – IV(A)

PROFORMA FOR STATEMENT OF MINOR DEVIATIONS
(Refer Clause 6 & 7 of ITT)

The following are the particulars of minor deviations from the requirements of the Tender Document:

Sr. No	Clause	Deviations	Remarks (including justification)	Confirming that price of adjustment of each deviation/s is given in Annexure-IV(AA) of financial package (Yes/No)

Note :

1. The Tenderer shall indicate price adjustment against each deviation in Annexure-IV(AA) of BOQ. This price is the price which the tenderer shall reduce from his tender price if deviation(s) is/are accepted by the Employer.
2. Where there is no deviation, the statement should be returned duly signed with an endorsement indicating 'No Deviations'. In case, Performa of deviations is not submitted or submitted as blank, it will be construed that the tenderer has not proposed any deviations from tender documents.
3. If the tenderer proposes deviations in tender documents and/or any other terms and conditions of the tender, other than in this Annexure, it will have no effect.

Signature of authorized signatory on behalf of Tenderer

**ANNEXURE – V**

(Ref. Clause 3.0 of e-Procurement Notice & sub-clause 19.1 of ITT)

Essential Qualifying Criteria:

1.1. The bidder should possess the experience of having successfully completed or substantially completed similar works during the last 7-years (ending last day of the month previous to the one in which tenders are invited) which should be **anyone** of the following-

- i) Three similar works each costing not less than the amount equal to 30% of the estimated cost i.e. \$ 25,50,353
- ii) Two similar works each costing not less than the amount equal to 40% of the estimated cost i.e. \$ 34,00,471
- iii) One similar work costing not less than the amount equal to 60% of the estimated cost i.e. \$ 51,00,706

Works are considered similar if executed work involves- Supply, Installation, Testing and Commissioning of EI/Relay based Railway Signaling System and OFC based Railway Telecommunication System.

1.2. The bidder should have achieved during the last three years (ending last day of the month previous to the one in which tenders are invited) the minimum annual production value/ Quantity of the key construction activities stipulated as per scope of the work: **Supply, Installation, Testing and Commissioning of Electronic Interlocking System at 7 stations and OFC based Railway telecom work of minimum 70 km.**

Note:

- i) The minimum quantity of key construction activities mentioned in para 1.2 above may be covered under one contract or more than one contract.
- ii) The quantities of key construction activities mentioned in para 1.2 above may be from completed/ ongoing works.
- iii) For the key construction activities mentioned in para 1.2 above proof of executed items of work shall be submitted by bidder duly issued by their client.
- iv) The work completion certificates should clearly reflect quantities of Key construction activities.

2. The average annual financial turnover during the last 3-years should be at least 30% of the estimated cost.

Notes:

- a) The financial turnover shall mean Revenue from Operations of standalone Financial Statements of the Bidder.



- b) Revenue from Operations shall be judged from Audited Balance Sheet, Profit & Loss A/c, relevant Notes to A/cs and Statutory Auditor Report/ relevant abstracts of Annual Reports covering above documents and the same shall be certified by statutory auditor with UDIN where the accounts are audited. In other cases, the same may be certified by Chartered Accountant with UDIN.
 - c) In case the financials of immediate prior Financial Year have not yet been audited till the time of submission of the tender, the bidder can submit an Affidavit to this effect stating that "the financial results of the immediate prior Financial Year has actually not been audited so far". In such cases, the financials of preceding three audited financial years will be taken into consideration for evaluating the Annual Financial Turnover of the bidder. In the absence of such an Affidavit, the benefit of considering three preceding years would not be given and the bid would be evaluated considering turnover for two preceding years only.
3. Net worth of the bidder should be at least 10% of the estimated cost of the work. This will be judged from the audited Balance Sheet of the last financial year ending on a date not prior to 18 months from the date of invitation of the tender, but not earlier than a year immediate financial year.
- 3.1 The bidder whose annual financial turnover do not exceed ₹50 Lakhs should submit copy of applicable ITR under Income tax rules which is generated from Income tax portal and duly self- attested to judge their net worth and turnover.
4. The bidder should submit completion certificates in reference to S.No.1 (minimum 3 nos., 2 nos. or 1 no. as the case may be) above issued by Government Organizations/ Semi Government Organizations/ Public Sector Undertakings/ Autonomous bodies/ Municipal bodies/ Public Limited Company / Concessionaire Company/ Private Company/ JV Company for having successfully completed similar works in the last 7 years. Certificates issued by such Public Limited Company / Concessionaire Company /Private Company/ JV Company must be supported by Tax Deducted at Source (TDS) Certificates (Form 16A/ 26AS) in evidence of the value of work executed. In case of supply contracts, Copies of GSTR-1/GSTR 3B to be submitted by the bidder as a proof of payment received for supply. Before implementation of GST where no TDS is deducted, relevant copies of purchase order and invoices along with bill wise details of payment received duly certified by Chartered Accountant should be submitted by the bidder in support of value of work executed.
- 4.1 It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.

NOTE: -

- i) Value/ Quantity of Key Construction activities of a successfully completed work done by a member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/ her compliance to the above-mentioned technical eligibility criteria in the tender. A copy of the JV

IRCON/S&T/1800021/12239



agreement submitted to client at the time of award of work or any subsequent change in the provision of original JV agreement as agreed by the client shall be submitted along with tender document, while claiming share of the experience in the previous JV.

5. Bid Capacity – Not Applicable

6. The bidder shall sign the Affidavit as enclosed in Annexure-‘IV’ of “Instructions to Tenderers”.

This Affidavit shall be signed by all the partners of Partnership firm and all the members of Joint Venture (JV)/ MOU (if participation of JV/ MOU is permitted in the tender).

7. If the bidder (any partners of JV, in case JV is permitted in the tender) is in Corporate Insolvency Resolution Process (CIRP)/ liquidation/ Winding up/ CDR/SDR/S4A/Flexible Structuring or any other restructuring scheme due to financial stress and is in default on any debt obligations on the bid due date. An undertaking of bidder (All partners of JV in case JV is permitted in the tender) (duly certified by the statutory auditor of the bidder with UDIN where the accounts are audited. In other cases the same may be certified by Chartered Accountant with UDIN) must be submitted along with the bid.

Explanation for above Essential Qualifying Criteria No. 1 to 7

1. Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.
2. In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.
3. If a provisional completion certificate is issued by the concerned organization, such work shall be considered for fulfillment of credentials. However, the value of work done shall be considered to the extent of actual amount paid by the client.
4. Deleted
5. In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost of that work including Price Variation amount if any shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.



6. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3×0.2 value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
7. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm(e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs.6crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
8. In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No. (s) in case of dissolution of partnership firm etc.
9. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.
10. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.
11. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.

IRCON/S&T/1800021/12239



12. In a partnership firm "AB" of A&B partners, in case A also works as propriety firm "P" or partner in some other partnership firm "AX", credentials of A in propriety firm "P" or in other partnership firm "AX" earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.
13. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm
14. In case company A is merged with company B, then company B would get the credentials of company A also.]

**ANNEXURE – V-A**

(Ref- Clause 4.1 of Annexure-V of ITT)

Compliance of Essential qualifying criteria

Para No. of Annexure-V	Description	Complied/not complied	If complied, details to be mentioned by bidders. Attached document must have some identity such as Annexure-X, attached at page Y
1.1	Three similar work of value \$25,50,353		
	OR		
	Two similar work of value \$ 34,00,471		
	OR		
	One similar work of value \$ 51,00,706		
1.2	Key construction activities- Supply, Installation, Testing and Commissioning of Electronic Interlocking System at 7 stations and OFC based Railway telecom work of minimum 70 km.		
2	The average annual financial turnover during the last 3-years should be at least 30% of the estimated cost.		
3	Net worth of the bidder should be at least 10% of the estimated cost of the work.		
4	The bidder should submit completion certificates in reference to S.No.1 (minimum 3 nos., 2 nos. or 1 no. as the case may be) above.		

IRCON/S&T/1800021/12239



4.1	It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.		
6	The bidder shall sign the Affidavit as enclosed in Annexure- 'IV' of "Instructions to Tenderers		



Annexure-A

LIST OF RELATIVES

Section 2(77) of the Companies Act, 2013

[Effective from 1st April, 2014]

“Relative”, with reference to any person, means anyone who is related to another, if –

- (i) they are members of a Hindu Undivided Family;
- (ii) they are husband and wife; or
- (iii) one person is related to the other in such manner as may be prescribed;

List of Relatives in terms of Section 2 (77) [as prescribed under Rule 4 of Companies (Specification of Definitions Details) Rules, 2014]

A person shall be deemed to be the relative of another, if he or she is related to another in the following manner, namely: -

1. Father:

Provided that the term “Father” includes step-father.

2. Mother:

Provided that the term “Mother” includes the step-mother.

3. Son:

Provided that the term “Son” includes the step-son.

4. Son's wife.

5. Daughter.

6. Daughter's husband.

7. Brother:

Provided that the term “Brother” includes the step-brother;

8. Sister:

Provided that the term “Sister” includes the step-sister.

IRCON/S&T/1800021/12239



Annexure-B

Procedure for Suspension/Banning of Business Dealings with agencies in IRCON

(Issue No.:01 Date: 10.06.2013)
(Revision :01 Date: 19.10.2022)

Registered Office:

IRCON INTERNATIONAL LIMITED
(A Govt. of India Undertaking)
C-4, DISTRICT CENTRE, SAKET,
NEW DELHI-110017

PHONE: +91-11-29565666;
FAX: +91-11-26522000, 26854000
E-mail: info@ircon.org ;
Web: www.ircon.org

CIN: L45203DL1976GOI008171

Project Office:

IRCON INTERNATIONAL LIMITED
(A Govt. of India Undertaking)
No12, Kinross Avenue,
Colombo -04, Sri Lanka
Phone: +94-11-2081315
E-mail: ircon.s1800021@ircon.org;
Web: www.ircon.org

IRCON/S&T/1800021/12239



PROCEDURE FOR SUSPENSION/BANNING OF BUSINESS DEALINGS

CONTENTS

S. No.	Description
1.	Introduction
2.	Scope
3.	Definitions
4.	Grounds on which Suspension/Banning of Business Dealings can be initiated
5.	Initiation of Suspension/Banning
6.	Appeal against the Decision of the Competent Authority



1. Introduction

- 1.1 IRCON is a specialized construction organization covering the entire spectrum of construction activities and service in the infrastructure sector, especially Railways. The primary objective of IRCON is timely and efficient execution of projects assigned to it and at the same time ensuring the quality thereof. As a commercial organization IRCON is expected to adopt ethics of highest standards and a very high degree of integrity, commitment and sincerity towards the work undertaken. Accordingly, it is not in the interest of IRCON to deal with such Agencies who commit deception, fraud or other misconduct in the execution of contracts awarded/orders issued to them. Appropriate action needs to be taken against them in accordance with the procedure prescribed herein.
- 1.2 This procedure shall be applicable for effecting suspension/banning of business dealings with Agencies working for IRCON. It is incumbent upon IRCON to ensure compliance with the laws and principles of natural justice for banning the business dealings with any Agency. After issue of the Ban order for dealings in IRCON the Management may consider whether or not to refer the matter to the Indian Railways to consider imposition of similar ban by Indian Railways.
- 1.3 Since banning of business dealings involves severe consequences for the Agency concerned, it is essential that an adequate opportunity is provided to the Agency to present its case and any explanation, if tendered, is properly considered. If necessary, a personal hearing may be given to the Agency, before passing an order of banning based on the facts and circumstances of the case on record.

2. Scope

- 2.1 The procedure for (i) Suspension and (ii) Banning of Business Dealings with Agencies, is laid down in these guidelines.
- 2.2 It is clarified that these guidelines do not cover the process for declaring an Agency as "Non Performer" for which instructions have been issued separately.
- 2.3 The suspension / banning shall be with prospective effect, i.e., it will affect future business dealings only.
- 2.4 These guidelines shall apply to all the Projects/Regional Offices of IRCON.

3. Definitions

- 3.1 In these Guidelines, unless the context otherwise requires:
 - i) 'Agency' means a 'Bidder/Contractor/Supplier/Consultant'
 - ii) 'Competent Authority' and 'Appellate Authority' shall mean the following:
 - a) 'Competent Authority' shall be the concerned Director of IRCON and



- b) 'Appellate Authority' shall be CMD, IRCON

Note: 'Competent Authority' and 'Appellate Authority' shall not be the same person.

- iii) 'Investigating Agency' shall include Central Vigilance Commission (CVC), the Vigilance Departments of IRCON/Ministry of Railways, Central Bureau of Investigation, or any Central/State Government Department having powers to investigate into the propriety of working of the Agency for IRCON.
- iv) Other Terms used in this Circular shall have the same meaning as assigned to them in Clause 1102 of Chapter-XI of Vigilance Manual of Indian Railways.

4. Grounds on which Suspension/Banning of Business Dealings can be initiated:

- 4.1 For security considerations, including suspected disloyalty of the Agency to the State or IRCON, as the case warrants;
- 4.2 If any Director/Owner/Proprietor or partner of the Agency, is convicted by a Court of Law for an offence involving moral turpitude in relation to its business dealings with IRCON, any Government Department/Ministry or any other Public Sector Enterprise.
- 4.3 If there is strong justification for believing that any Director, Proprietor, Partner, owner of the Agency has been guilty of malpractices, such as bribery, corruption, fraud, substitution of tenders, interpolations, etc.
- 4.4 If the Agency engages a public servant dismissed/removed from service on account of corruption or employs a person convicted for an offence involving corruption, moral turpitude or abetment of such offence; in a position where he could corrupt government servants.
- 4.5 If the Agency has resorted to corrupt, fraudulent malpractices including misrepresentation of facts;
- 4.6 If the Agency uses intimidation/threats or brings outside pressure on the Company (IRCON) or/on its officials in acceptance of Tender or performance of the job under the contract;
- 4.7 Based on the findings of the investigation report of the Investigating Department against the Agency that it has resorted to mala-fide/unlawful acts or improper conduct on its part in matters relating to IRCON, any Government Ministry/Department or any other PSU;
- 4.8 If the Agency has submitted a false or wrong Affidavit along with its bid with regard to the credentials of the firm or misrepresented/manipulated the facts in regard to or in connection with any bid submitted to IRCON.
- 4.9 Established litigant nature of the Agency to derive undue or benefit.

IRCON/S&T/1800021/12239



- 4.10 If the Agency misuses the premises or facilities of the IRCON, forcefully occupies or damages the IRCON's properties including land, water, resources, forests / trees or tampers with documents / records etc.
- 4.11 If the business dealings with the agency have been banned by the Ministry of Railways.

(Note: The above grounds are illustrative only and not exhaustive. The Competent Authority may decide to suspend/ban business dealings for any other reasonable cause and sufficient reason)

5. Initiation of Suspension/Banning:

5.1 Suspension of Business dealing

- 5.1.1 Action for suspension may be initiated by the concerned Coordinating Officer/IRCON on receipt of a report from the Project Head/ Functional Head/ Investigating Department and if it is considered that allegations are of a serious nature, which may warrant banning of business dealings with the Agency. The report should also bring out whether pending banning of business proceedings it would be in the interest of IRCON to enter into fresh business dealings with the Agency or order immediate suspension of further business dealings with the Agency. The Coordinating Officer shall submit his report to the Competent Authority.
- 5.1.2 As far as possible, the existing contract(s) with the Agency may be continued unless the Competent Authority, having regard to the circumstances of the case decides otherwise in the interest of IRCON.
- 5.1.3 If the Competent Authority, after consideration of the matter, including the recommendations of the Investigating Department/ report of the Coordinating Officer, decides that it would not be in the interest of IRCON to enter into business dealings with the Agency pending investigations, he may order suspension of business dealings with the Agency.
- 5.1.4 The Investigating Department may be advised to complete their investigations and submit a final report within a period of three months.
- 5.1.5 The order of suspension of business dealings would not remain effective for a period beyond three months from the date of the issue of the suspension order unless show cause notice for banning of business is issued to the Agency within this period. However, if the final investigation report is not received within this period, the Competent Authority may extend the period of suspension by another three months, during which period the show cause notice must be issued. Once the show cause notice is issued the suspension order will continue till decision by Competent Authority.

IRCON/S&T/1800021/12239



- 5.1.6 In case of suspension the Agency must be informed immediately of the suspension order with brief charges under investigation. It is not necessary to enter into correspondence with or offer explanations to the Agency at this stage.
- 5.1.7 The order of suspension can be issued without giving any show cause notice or personal hearing to the Agency. However, the suspension cannot be continued for an indefinite period, unless a show-cause notice for banning of business is issued within 6 (six) months, the period of suspension will either be extended or the suspension shall be revoked.
- 5.2 Banning of Business Dealings**
- 5.2.1 A decision to ban business dealings with any Agency shall normally apply throughout IRCON and its subsidiaries.
- 5.2.2 An Investigating committee not below the CGM level nominated by Competent Authority shall look into the charge(s) against the agency. The functions of the committee shall, inter-alia include:**
- i. To study the report of the project head/Functional head / Investigation agency and decide if a prima-facie case for banning exists, if not, send back the case to the Competent Authority.
 - ii. To recommend for issue of show-cause notice to the Agency by the competent authority as per clause 5.2.3.
 - iii. To examine the reply to show-cause notice and call the Agency for personal hearing, if required.
 - iv. To submit final recommendations to the Competent Authority for banning or otherwise.
- 5.2.3 On receipt of the report of the Investigating Committee if the Competent Authority is prima-facie of the view that action for banning of business dealings with the Agency is called for, a show-cause notice may be issued to the Agency after approval by the Competent Authority.
- 5.2.4 The show cause notice, duly approved by the Competent Authority, may be issued by Regd. A.D./Speed Post by concerned Coordinating Officer in charge of the project along with a statement containing the imputation of misconduct or malpractice and the Agency should be asked to submit its written explanation or statement in defence within 30 days of the date of notice. If no reply is received, a decision may be taken ex-parte by the Investigating Committee based on facts and evidence on record.
- 5.2.5 If the Agency requests for inspection of any relevant document mentioned in the show cause notice in possession of IRCON, the facility for inspection of such documents may be provided.



- 5.2.6 After considering the reply of the Agency and other circumstances and the recommendation of the investigating committee, a final decision shall be taken by the Competent Authority, if considered necessary after giving an opportunity for personal hearing to the Agency. The Competent Authority may then consider and pass an appropriate speaking order:
- exonerating the Agency, if the charges are not established;
 - banning the business dealings with the Agency along with the period for which the ban would be operative, if the charges are proved.
 - whether or not to refer the matter to the Indian Railways to consider imposition of similar ban by Indian Railways.
- 5.2.7 The order for banning of business dealings by all units of IRCON shall be applicable to the Agency including its allied firms as defined in Para 1102 of IR Vigilance Manual.
- 5.2.8 Decision of Competent Authority will be intimated to the concerned Project Head/ Coordinating Officer, who will convey the same to the delinquent Agency and its allied firms and circulate it to the corporate office and all Project Head / Functional Head/ Project Coordinator for applying these orders uniformly in IRCON. The reasons may not be disclosed in such communications. However, the fact that the representation has been considered should invariably be mentioned in the communication.
- 5.2.9 The validity of the banning order shall be for a specified time period, on expiry of which, the banning order shall cease to operate, unless extended further by competent authority.
- 6. Appeal against the Decision of the Competent Authority:**
- The Agency may file an appeal against the order of the Competent Authority for suspension continuing beyond six months or order of banning business dealings with the Agency. The appeal shall lie with the Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order banning of business dealings or order of continuance of suspension order beyond six months.
 - Appellate Authority shall consider the appeal and pass an appropriate order which shall be communicated to the Agency as well as the Competent Authority.
- If the decision of the Competent Authority is modified by the Appellate Authority the same will be intimated by concerned Project Head/ Project Coordinator to the delinquent agency and its allied firm and circulate it with advice to all Project Heads and Corporate Office of IRCON.

**ANNEXURE – VII**

CHECK LIST for list of documents duly page numbered, signed, stamped by authorized signatory of the Bidder to be scanned, uploaded (in PDF/ JPG format such that file size is not more than 5 MB) with the e-tender and submitted online not later than the prescribed date and time for e-bid submission:

(A) Documents in Original to be submitted in tender box at the address mentioned in the Key Information Table (KIT) Para 1.1 of e-Procurement Notice.

Earnest Money Deposit in case of Pay Order/DD/FDR/BG as referred in clause no. 9.1 of 'Instructions to Tenderers'.

(B) Documents to be uploaded:

SN	Description	Write YES if attached otherwise No.	Page No.	Details of supporting documents attached.
1.	Forwarding Letter of the bidder			
2.	Form of Bid duly filled, digitally signed			
3.	Details of similar works completed/substantially completed: In support of para 1.1 of Essential qualifying criteria			
4.	Details of works completed/substantially completed: In support of para 1.2 of essential qualification criteria			
5.	Documents in support of para 4.1 of essential qualification criteria			
6.	Revenue from Operations for the last three years with supporting documents (Format - 2).			
7.	Programme for deployment of man power (Format - 3).			
8.	Maximum Value of construction works executed and payment received in any of the three financial years (Format - 5)			
9.	Existing Commitment and ongoing construction works(Format - 6)			

IRCON/S&T/1800021/12239



10.	Attested copies of the constitution of its firm such as Partnership Deed, Registration Certificate, MOU/ Joint Venture Agreement, Memorandum and Articles of Association, etc.			
11.	GSTIN			
12.	ISO certificates (if any).			
13.	Schedule of start and completion of work in the form of Bar Chart.			
14.	Methodology for execution of works.			
15.	Power of Attorney duly attested by Notary Public in favour of the person signing the e-bidding documents digitally as well as manually. Name of officer having POA & Name of officer having Digital signature must be same			
16.	Banker's details (name of bank and branch) along with bidder's own bank details (Account No., Name of Account Holder, NEFT/RTGS details) as per Format given in Annexure-I .			
17.	Affidavit (as per Format given in Annexure-IV)			
18.	Certificate of familiarization			
19.	Any other details sought through ITT, NIT and tender conditions.			

Note: Hard copy of uploaded documents listed at (B) above, in original must be presented to IRCON, if requested so, either during the process of finalization or after finalization of the tender.

IRCON/S&T/1800021/12239

**FORMAT-1****DETAILS OF SIMILAR WORKS COMPLETED/SUBSTANTIALLY COMPLETED IN LAST SEVEN YEARS**

S. No.	Description of the Work	Name and address of the Employer	Contract No. and date	Date of award of work	Stipulated date of completion	Date of actual completion	Value of completed work (In Lacs of)	Reasons for delays, if any	Penalty, if any, imposed for delay	Any other relevant information	Remarks
1											
2											
3											
4											
5											
6											

Note:

1. In case of Joint Venture (if Joint Venture is permitted in the tender), the information is to be furnished by all the members.

IRCON/S&T/1800021/12239

**FORMAT-2***(Ref. Sr. No. 6. of Annexure-VII to Instructions to Tenderers)***REVENUE FROM OPERATIONS FOR THE LAST THREE YEARS**

S. No.	YEAR	Revenue from Operations (In lacs of Rs.)	Remarks
1			
2			
3			

Note:

1. In case of Joint Venture (if Joint Venture is permitted in the tender), the information is to be furnished by all the members.
2. The above statement shall be certified by statutory auditor with UDIN where the accounts are audited. In other cases, the same may be certified by Chartered Accountant with UDIN.
3. The financial turnover shall mean Revenue from Operations of standalone Financial Statements of the Bidder.
4. Revenue from Operations shall be judged from Audited Balance Sheet, Profit & Loss A/c, relevant Notes to A/cs and Statutory Auditor Report/ relevant abstracts of Annual Reports covering above documents and the same shall be certified by statutory auditor with UDIN where the accounts are audited. In other cases, the same may be certified by Chartered Accountant with UDIN.
5. In case the financials of immediate prior Financial Year have not yet been audited till the time of submission of the tender, the bidder can submit an Affidavit to this effect stating that "the financial results of the immediate prior Financial Year has actually not been audited so far". In such cases, the financials of preceding three audited financial years will be taken into consideration for evaluating the Annual Financial Turnover of the bidder. In the absence of such an Affidavit, the benefit of considering three preceding years would not be given and the bid would be evaluated considering turnover for two preceding years only.

IRCON/S&T/1800021/12239

**FORMAT-3**

(Ref. Sr. No. 7. of Annexure-VII of ITT)

PROGRAMME FOR DEPLOYMENT OF MAN POWER

S. N.	Designation	Name	Qualification	Field of Experience	Passport Number and date of expiry	To be deployed and will stay in Sri Lanka (D is the date of issue of LOA)
1	Project manager					Within D+15 days
2	Site Engineer-1					Within D+30 days
3	Site Engineer-2					Within D+30 days
4	OEM's Engineer (EI)					Within 5 days from the date of dispatch of EI material
5	OEM's Commissioning Engineer (EI)					At the time of commissioning of each station
6	Cable termination wiremen group having 4 wiremen					Within 5 days from the supply of outdoor material (Signal units, Cables and Location Boxes)
7	Track Circuit wiremen group having 4 wiremen					Within 5 days from the supply of outdoor material for Track circuit
8	Indoor wiremen group having 8 wiremen					Within 5 days from the supply of indoor material (EI, Relay rack, CTR)
9	Other Manpower as per requirement					

IRCON/S&T/1800021/12239

**FORMAT-4 NOT APPLICABLE**

(Ref. Sr. No. 6. of Annexure-VII of ITT)

PROGRAMME FOR DEPLOYMENT OF PLANT AND MACHINERY PROPOSED TO BE ENGAGED ON THE PROJECT

S. No.	Description	Make	Model & Year of manufacture	Capacity	Condition	Nos. proposed to be deployed	Program of Deployment	Remarks
1								
2								
3								
4								

IRCON/S&T/1800021/12239

**FORMAT - 5***(Ref. Sr. No. 7. of Annexure-VII to Instructions to Tenderers)*

MAXIMUM VALUE OF CONSTRUCTION WORKS EXECUTED AND PAYMENT RECEIVED IN ANY OF THE PREVIOUS THREE FINANCIAL YEARS OR CURRENT FINANCIAL YEAR (UP TO DATE OF INVITING TENDER)

S. No.	MAXIMUM VALUE OF CONSTRUCTION WORKS EXECUTED AND PAYMENT RECEIVED IN ANY OF THE PREVIOUS THREE FINANCIAL YEARS OR CURRENT FINANCIAL YEAR (UP TO DATE OF INVITING TENDER) (In lacs of Rs.)	Remarks
1		

Note:

1. In case of Joint Venture (if Joint Venture is permitted in the tender), the information is to be furnished by all the members.
2. The above statement should be duly verified by statutory auditor with UDIN where the accounts are audited. In other cases by Chartered accountant with UDIN.

IRCON/S&T/1800021/12239

**Existing commitments and on-going construction works:****FORMAT-6***(Ref. Sr. No.8. of Annexure-VII to ITT)*

Description of Work	Place & State	Contract No & Date	Name & Address of Employer	Value of Contract (`in Lakhs)	Stipulated period of completion	Value of works remaining to be completed (`in Lakhs) *	Anticipated Date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Note:

1. In case of Joint Venture (if Joint Venture is permitted in the tender), the information is to be furnished by all the members.
2. The above statement should be duly verified by statutory auditor with UDIN where the accounts are audited. In other cases by Chartered accountant with UDIN.



SECTION-IV

APPENDIX TO TENDER



APPENDIX TO TENDER (ATT)

<u>DESCRIPTION</u>	Reference Clause
<u>Following materials shall be supplied by the Engineer to the Contractor free of cost:-</u>	Refer SCC clause 5
<u>Following Plant & Machinery shall be issued by the Engineer to the Contractor on hire basis:-</u>	NA
<u>The operators for running / operating following Plant & Machinery shall be provided by the Engineer:-</u>	NA
<u>For Price Variation Clause:</u>	Refer Clause 7.0 of SCC
i) Labour component (L)	-
ii) Materials component (M) (Other than Bitumen, Cement, Steel – Reinforcement Steel, Structural Steel, HTS wires)	-
iii) Plant, Machinery and Spares Component (P)	-
iv) POL (Fuel and Lubricants) Component (F)	-
v) Cement Component (C)	-
vi) Reinforcement Steel (S _R)	-
vii) Structural Steel (S _s)	-
Star Item Component:	-
<u>Address of IOCL/ BPCL/ HPCL refinery nearest to the project site for taking price of Bitumen for PVC:-</u>	-



SECTION-V

(SPECIAL CONDITIONS OF CONTRACT)
(SCC)



Special Conditions of Contract

1.0 ORDER OF PRIORITY OF CONTRACT DOCUMENTS

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

- a. Agreement
- b. Letter of Acceptance of Tender
- c. Addendum(s)/Corrigendum(s), if any.
- d. e-Procurement Notice
- e. Instructions to the Tenderers
- f. Appendix to Tender
- g. Form of Bid
- h. Special Conditions of the Contract
- i. General Conditions of Contract
- j. Technical Specifications
- k. Drawings
- l. Bill of Quantities

2.0 SCOPE OF WORK: -

The Contractor's scope of work shall include, but not limited to:

- 2.1 Design, Supply, Installation, Testing and commissioning of Electronic Interlocking System (Hot stand BY configuration) conforming to specification No. RDSO/SPN/192/2005 with latest amendments including all Indoor & Outdoor S&T works at following 7 stations and automatic block signaling throughout the section from Maho to Anuradhapura.

SN	Name of Station	Description
1	Maho (MHO)	Junction Station
2	Ambanpola(ABN)	3 line Crossing station
3	Galgamuwa ((GLM)	3 line Crossing station
4	Senarathgama(SGM)	2 line Crossing station
5	Thambuththega (TBM)	4 line Crossing station
6	Thalawa (TLA)	3 line Crossing station
7	Srawasthipura (SRP)	4 line Crossing station



Automatic block working between following block sections:

SN	Name of Automatic Block section	Section length in km
1	Maho (MHO)- Ambanpola (ABN)	11.672
2	Ambanpola(ABN)-Galgamuwa (GML)	9.985
3	Galgamuwa ((GLM)-Senarthgama(SGM)	9.841
4	Senarathgama(SGM)-Thambuththega (TBM)	8.875
5	Thambuththega (TBM)- Thalawa (TLA)	10.979
6	Thalawa (TLA)- Srawasthipura (SRP)	8.462
7	Srawasthipura (SRP)-Anuradhapura	6.544

- 2.2 Anuradhapura station is an existing Relay based signalling system, modification to be done by the contractor at anuradhapura station in connection with Automatic block working between Anuradhapura and Srawasthipura section.
- 2.3 Entire System Design including Power supply arrangement shall be done by the contractor and shall be submitted to IRCON/Sri Lanka Railway for approval.
- 2.4 Automatic block working between Maho and Nagulagama station will be done by Sri Lanka Railway for which block interfacing shall be provided by successful bidder of this contract.
- 2.5 DC track circuit-based train detection system shall be provided, power supply for track circuits shall be designed by contractor as per the practice of Sri Lanka Railway.
- 2.6 Excavation, cable laying, testing and termination of underground Signaling/OFC Cables including termination, testing & all protective works.
- 2.7 Supply, Installation, Testing and Commissioning Point machines, Signals, Location Boxes, Track circuits, LC gates (Full protected & Bell and Light both) etc.
- 2.8 Design, preparation and submission of as planned and as built Selection table, Interface circuit, Application Logic circuit, cable route plan, cable core plan, track bonding plan, SWR, SWRD, VDU Diagram, Power supply design for stations and block sections, termination plan, detailed wiring circuits for Bell and Light LC Gates, Full protection LC gates in yard and block section, wiring diagram of various circuits or any other diagram/circuit as required by IRCON/Sri Lanka Railway. Cost of preparation and submission of required no. of sets of as planned and as built drawings is included in the contract price.
- 2.9 FAT, SAT and Bell testing as per the instructions of IRCON/ SLR Engineer.
- 2.10 Supply, Installation, Testing & Commissioning of Maintenance Free Earthing, & Normal Earthing.
- 2.11 Supply, installation and testing of public address system, Control phones, IP phones, GPS clocks, interfacing of equipment with control center etc. at Anuradhapura.

IRCON/S&T/1800021/12239



- 2.12 Supply, Installation and testing of video wall at CTC center Anuradhapura and required interfacing/wiring with newly installed system. It shall display the entire section from Maho to Anuradhapura. Communication shall be through OFC laid under this contract.
- 2.13 Coordination with Civil Contractor and Sri Lanka Railways.
- 2.14 Supply of all manuals, as planned & completion drawings etc.
- 2.15 Cleaning, painting and lettering of various gears as advised by engineer.
- 2.16 All transportation, handling, stacking materials, protection of the material from the manufacturer's works to the sites of use.
- 2.17 Training for operation, maintenance and troubleshooting of EI and other S&T equipment.
- 2.18 Arranging inspection of Sri Lanka Railway, inspecting agency and IRCON. All charges related to inspection shall be borne by the contractor.
- 2.19 Arranging all documents required for export of materials.
- 2.20 Port clearance in Sri Lanka.
- 2.21 Transportation from India to Project Site.
- 2.22 Storing of Material at project site.
- 2.23 Arranging store and security for store.

NOTE-

Bidders are free to seek any clarification regarding the scope of work during pre-bid meeting. In case of any ambiguity or clarification regarding activities to be executed under scope of work arises after the award of work, decision of employer shall be final and binding on the contractor.

3.0 MOBILIZATION ADVANCES -NOT APPLICABLE**4.0 SUPPLY OF MATERIALS**

- 3.1 Contractor shall make his own arrangements at his cost for all materials given in schedule, required for execution, completion and maintenance of all items of work included in his scope of work to the complete satisfaction of the Engineer. Engineer shall not provide any materials nor shall assist for procurement of any materials required for execution, completion and maintenance of works.
- 3.2 Make and model of each material to be approved by Sri Lanka Railway.
- 3.3 Before supply of material by contractor, contractor shall prepare a design as per requirement of Sri Lanka Railway and submit for approval through IRCON to Sri Lanka Railway. Design and Material to be approved by Engineers appointed by Employer/Sri Lanka Railway.
- 3.4 Sri Lanka Railway officers will inspect the material before dispatch from India to Sri Lanka and material can be dispatched after receiving dispatch clearance from Sri Lanka Railway.
- 3.5 Material will be inspected by RDSO/Sri Lanka Railway or any other agency nominated/Approved by IRCON and acceptable to Sri Lanka railway. The cost for the same shall be borne by the



contractor.

5.0 SUPPLY OF PLANT AND MACHINERY BY EMPLOYER

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

6.0 TAXES AND DUTIES

- 6.1 The Contractor shall get registered with the concerned Goods and Service Tax Department of the relevant state(s)/countries and submit a copy of the same to the Employer/Engineer. He shall be responsible for Filling Goods and Service Tax return/other tax returns and assessments, as necessary as per prevalent Laws, Rules and Regulations and shall also furnish necessary certificate to Employer/Engineer from time to time.
- 6.2 Wherever certain exemption/benefits are available on custom duty the Contractor shall consider the same while quoting his rate. For instance, material/Plant and machinery etc. used for execution of the projects financed by EXIM Bank enjoy exemption from custom duty under foreign Trade Policy as Deemed export on fulfilling the condition as per Govt. notifications. Similarly, the Contractor shall ensure that whatever any benefits are available under any other law, these shall be considered while quoting the rates.
- 6.3 All rates quoted in the Bill of Quantities shall be deemed to be inclusive of all types of taxes applicable in India and Sri Lanka.
- 6.4 Custom clearance of supplied item at Colombo Port in Sri Lanka including payment of Colombo Port charges and further transportation of the supplied material to the worksites shall be arranged by contractor and is included in the scope. IRCON will facilitate by providing recommendation letters from concerned authorities for custom clearance at Colombo port. Payment towards port charges and other statutory charges shall be reimbursed by IRCON after certification and acceptance by Sri Lanka Railway / Engineer on submission of payment receipts in Original. However, if the demurrage charges if levied by these authorities due to inefficiency of the contractor, shall be borne by the contractor.
- 6.5 Duty and taxes at import of all the materials, plant and machinery, construction vehicles required for the execution of project shall be reimbursed after the receipt of the same from Sri Lanka Railways. In case of disposal of the machinery brought by the contractor on temporary import basis, the duty, if levied by the concerned authorities shall be borne by the contractor.
- 6.6 VAT, Vehicle revenue license fee and royalty charges for natural materials obtained from outside the site which pertaining to approved BOQ items will be reimbursed after the receipt of the same from Sri Lanka Railways.
- 6.7 The Payment of reimbursement specified above shall only be paid to the contractor fully in Sri Lankan Rupees.

IRCON/S&T/1800021/12239



6.8 Registration with local authorities and taxation

- a) The contractor should be registered with respective Statutory Authority in Sri Lanka and submit a copy of registration certificate to IRCON. Failure to comply with registration will result in withholding of payment till such time.
- b) The quoted rate should be inclusive of all the applicable taxes in India and Sri Lanka. Tax deduction at source as per applicable rule in Sri Lanka and India shall be made from the payment of the contractor for which necessary TDS Certificate shall be issued by IRCON.

7.0 PRICE ADJUSTMENT / PRICE VARIATION CLAUSE: NOT APPLICABLE

8.0 COMPLETION PERIOD

The entire work shall be completed (i.e. Commissioning of the entire system) in a period of **Ten Months** as mentioned below:

SN	Activity	Duration
1	Submission of all outdoor drawings	D+15 days
2	Submission of Selection Table	D+ 20 days
3	Submission of Interface circuits for all stations	D+45 days
4	Submission of Logic Circuits	A+30 days
5	Supply of outdoor cables	B+60 days
6	Supply of Indoor material	B+60 days
7	Supply of balance material	B+90 days
8	Completion of outdoor work	B+180 days
9	Completion of Indoor work	C+120 days
10	Testing of indoor and outdoor work	30 days from completion of indoor and outdoor work
11	Commissioning	30 days from completion of indoor & outdoor testing
12	Submission of completion drawing	30 days after commissioning

D=Date of handing over approved SIP by IRCON to successful bidder/contractor.

A=Date of handing over approved selection Table by IRCON to contractor

B= Issue of LOA

C= Handing over of equipment room to contractor

- 8.1 Considering the huge scope of work, completion period of each activity is very short, hence successful bidder has to start parallel working at each station to avoid delay penalty. Site is already ready to start the execution of work immediately and there is no scope of delay in work on account of employer/client.
- 8.2 Delay damages for the work shall be 0.5% of the contract value per week. (up to a maximum of 5% of contract value)
- 8.3 Penalty for delay in Handing over of the System shall be 0.5% of the cost of delayed deliverables per week. (up to a maximum of 5% of contract value)

9.0 Defect Liability Period & Maintenance

- 9.1 The contractor shall maintain, rectify and make good at his own cost any defect/deficiencies, which may be develop in the work or as notified by the Engineer during Defect Liability Period as specified

IRCON/S&T/1800021/12239



in the Key Information Table in Para 1.1 of e-Procurement Notice.

- 9.2 The Contractor shall assist the railway staff to maintain the new assets installed / commissioned through this tender for a period of six months from the date of start of train working for respective stations. This includes supply of consumables as per direction of Engineer-in-Charge.
- 9.3 The Contractor shall immediately attend the fault if any and rectify the fault free of cost during this period. Fault shall be rectified within reasonable time.
- 9.4 During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor at his cost.
- 9.5 The person engaged by the contractor for Maintenance shall be on roll of contractor and such persons shall not have any claim for their regular appointment or engagement in Railways/IRCON or in any project of Railway/IRCON.
- 9.6 IRCON shall not be liable for any damage or loss to the person engaged by the contractor for Maintenance.
- 9.7 Minimum Two Engineers (out of which one shall be from EI OEM) and two competent wiremen shall be deployed during DLP period. Other additional manpower shall also be arranged by the contractor as per the instruction of Engineer whenever required during DLP and warranty period. Penalty for Non Deployment shall be \$130 per person per day for Engineers and \$100 per wiremen per day.

10.0 GUARANTEE/ WARRANTY:

- 10.1 The Guarantee/warranty period shall be **3 Years after completion of Defect liability period** over of part section/sections.
- 10.2 In the event of any inadequacy, defect, error, fault occurring during the Guarantee Period, it shall be the responsibility of the Contractor to rectify the same with no extra Cost to the Employer.
- 10.3 Defective material shall be **REPLACED** within **15 days** of upon receipt and with all reasonable speed, by considering the requirement of the service.
- 10.4 The Contractor will be required to rectify any defects in the equipment, owing to faulty design, inferior materials or bad workmanship, notified by IRCON/Sri Lanka Railway within above period of three years, free of all cost.
- 10.5 The contractor shall submit an indemnity bond for the full replacement value of such equipment as per the accepted rates which shall be valid till expiry of warranty period plus three months. **Only upon receipt of such indemnity bond, the retention money may be released.**
- 10.6 The contractor shall deploy adequate staff for fulfilling these obligations of the warranties.

11.0 INSURANCE

Before commencing of works, it shall be obligatory for the Contractor to obtain, at his own cost, insurance cover in the joint name of the Contractor and IRCON from reputed companies for the following requirements:

- a Liability for death of or injury to any person or loss of or damage to any property (other than the work) arising out the performance of the Contract.

IRCON/S&T/1800021/12239



- b Construction Plant, Machinery and Equipment brought to site by the Contractor.
- c Workmen compensation policy
- d Any other insurance cover as may be required by the law of the land.

The contractor is also required to take Transit insurance for the material imported to Sri Lanka till site location. There shall be no liability on IRCON for the same. The cost towards the same shall be included in the quoted rates. Copies of such policies shall be submitted by the contractor to IRCON.

However, the contractor is not required to take work insurance as the same shall be taken by IRCON in the form of CAR (Contractors All Risk) policy and hence contractor will cover under CAR policy taken by IRCON accordingly. Therefore, bidders are advised to take into their consideration as above while quoting the rates.

In case of any claim for works, the contractor shall be responsible for realizing the claim with supporting documentation and liaising with insurance agency. IRCON shall issue necessary supporting / authorization letter to this effect.

12.0 SHRAMIK KALYAN PORTAL

Not Applicable, As the work to be carried out in Sri Lanka.

13.0 PERFORMANCE GUARANTEE (Refer Clause 8.1 of GCC)

The successful bidder shall submit a Performance Guarantee for amount of **10% (Ten percent) of the contract value in USD**. This Performance guarantee shall be valid till Defect Liability period from the date of issuance of letter of acceptance. All other conditions shall be as per clause 8.1 of GCC.

13.1 SECURITY DEPOSIT/RETENTION MONEY (Refer Clause 8.2 and 8.4 of GCC)

14.0 DEPLOYMENT OF ENGINEERS

- 14.1 During course of execution of works, the Contractor shall provide and keep on the works efficient and competent Engineers to ensure that the work is executed strictly as per provisions of the contract. It shall be the obligation on the part of the Contractor to provide the minimum manpower as mentioned in FORMAT 3 of Instruction to tenderers.
- 14.2 In case of non-deployment, \$ 130 per day for Project Manager and \$100 per day per person for other manpower shall be deducted from running bill of contractor.
- 14.3 Manpower shall be got approved in writing from the Engineer (whose approval may be withdrawn any time) for supervision of works and to receive direction from the Engineer of the work on behalf of the contractor. The manpower of the contractor will not be changed without the approval of the Engineer.

15.0 CONTRACT AGREEMENT

The Contractor shall enter into and execute the Contract agreement in the form of agreement (**Annexure-XII**) within 28 days from the date of issue of Letter of Acceptance. The stamp papers of the requisite value as per the prevailing laws shall be provided by the Contractor at his own cost. Original agreement shall be retained by the Employer/Engineer and a certified copy shall be made available to the Contractor. No payment under the contract shall be made to the Contractor before signing of contract agreement. The rates as per the accepted Bill of Quantities

IRCON/S&T/1800021/12239



shall be firm and hold good till the completion of the works, and no additional claim or amount shall be admissible on account of fluctuations in market rate, increase in fees, royalties etc. unless specific provided for in the contract.

16.0 VARIATION IN QUANTITY OF ITEMS COVERED BY THE BILL OF QUANTITIES

GCC clause no. 58 shall be read as below-

Clause 58 (i)

The quantities of items shown in the Bill of Quantities are approximate, and liable to vary during the actual execution of the work. The Contractor shall be bound to carry out and complete the stipulated work, irrespective of the variations in individual items, specified in the Bill of Quantities. The accepted prices shall remain firm till the work is completed. There shall be no variation in accepted prices for whatsoever reasons, if otherwise mentioned in the Contract document.

Clause 58 (ii)

Deleted

17.0 ITEMS NOT INCLUDED IN THE BILL OF QUANTITIES (Refer clause 59 of GCC)

17.1 If any item of work not provided for in the accepted Bill of quantities and required to be executed for completion of work, the Contractor on receipt of instructions from the Engineer, shall be bound to carry out such items of work at the rates to be decided as per sub-clause 17.2 and 17.3.

17.2 The rate for such extra items shall be derived from rate for similar items available in LAR/LOA of IRCON/Railways/Budgetary quotations.

17.3 In case rates not available in the LAR/LOA of IRCON/Railways/ Budgetary quotations, the rate may be worked out on the following basis:

- a) Cost of materials and consumables at current market rates, as actually utilized in the final finished permanent work, including a reasonable percentage for wastage and cost of loading, unloading and transportation.
- b) Cost of labour required for the work.
- c) Hire charges for plant and machinery, scaffolding, shuttering, forms, etc. required to be used at the site of the work.
- d) An amount of 10% of items (a), (b) and (c) above to allow for Contractor's overheads, profits and other contingencies.

17.4 Provisional payment for extra item

In case mutually agreeable settlement of rates is not arrived at between the Engineer and the Contractor, the Contractor shall be bound to carry out the works at rates to be decided by the Engineer. In the absence of a finalized rate for a new item, the Engineer shall be entitled to certify payment to the Contractor based on a provisional rate fixed by the Engineer for the work done under the new item. This shall be subject to upward or downward adjustment after the rate is finalized by the Engineer for that item. However, the given work will be continued by the contractor. The contractor shall not be entitled to suspend the work on account of settlement of

IRCON/S&T/1800021/12239



rates and shall continue to complete the given work.

18.0 TERMS OF PAYMENT:

The payment will be made as under:

18.1 Payment for Supply of material:

- a 80% Payment shall be done after receiving of material at project site and on submission of insurance policy, inspection certificate issued by the Competent Authority together with valid shipping document and clean bill of loading for materials.
- b Balance 10% payment shall be done after successful installation acceptable to Client/Engineer.
- c Balance 10% after successful and satisfactory commissioning and acceptable to Client / Consultant.
- d Balanced Material supplied under schedule A, but not installed due to any reason, 80% payment on receipt of material and balance 20% after satisfactory commissioning of project and acceptable to Client / Engineer.
- e Payment shall be made after statutory deduction and security deposit.

18.2 Payment for execution works:

18.2.1 80% Payment shall be done after after satisfactory installation and acceptable to Client / Consultant

18.2.2 Balance 20% payment shall be done after satisfactory commissioning and acceptable to Client / Engineer.

18.2.3 Payment shall be made after statutory deduction and security deposit.

18.3 Payment for items pertaining to training:

The payment for the total amount against the item of training shall be made in stages in proportion to the training modules finalized by the Contractor with the Employer.

18.4 Payment for items pertaining to warranty:

The total payment against the items of warranty for signaling & Telecom works shall be made in six equal installments payable after satisfactory completion of six months of warranty period, spread over the entire warranty period of three years.

19.0 TAX DEDUCTION AT SOURCE

Applicable tax shall be deducted from the payment released by IRCON.

20.0 COMMUNICATION BETWEEN EMPLOYER/ENGINEER AND CONTRACTOR

All instructions through e-mail, letter, WhatsApp shall be considered official.

21.0 QUOTATION OF RATES:

The Bill of Quantities (BOQ) listed out the quantities of various items to be executed under the scope of the tender. The tenderer should not quote for individual items/Schedule. Tenderer is advised to quote % above or below or at par on single percentage basis for total cost of the Work.

IRCON/S&T/1800021/12239



The Tenderer(s) shall write percentage in figure. The tender evaluation shall be done on total cost of the Work.

- i) The quoted Rates shall include transportation cost of material up to store/depot/warehouse including loading, unloading etc.
- ii) Nothing extra shall be payable over the quoted rates, except as specifically provided in the Contract.
- iii) All rates quoted in the Bill of Quantities shall be deemed to be inclusive of all types of taxes, duties and levies imposed by Government of India and Government of Sri Lanka.
- iv) Quoted Rates shall include the inspection charges to be paid by the contractor to RDSO/Rites etc.
- v) Quoted Rates shall include the charges of Insurance Policy/Workmen compensation policy etc.

22.0 INSPECTION OF MATERIALS:

In addition to what is indicated in General Conditions of Contract, following shall also be adhered to by tenderer:-

- 22.1 All materials shall be procured from firms approved by Sri Lanka Railway.
- 22.2 Materials put up for inspection shall be exactly for the type and quantity laid down in the tender documents. Any variation shall require the prior approval of the competent Authority/IRCON/employer before the material is manufactured or tendered for inspection.
- 22.3 Material shall be inspected by RDSO or any other agency nominated by IRCON.
- 22.4 Pre-dispatch inspection will be done by Sri Lanka Railway for which all arrangement such as airfare from Colombo to place of inspection in India, boarding, lodging etc. shall be done by contractor.
- 22.5 All necessary facilities (Test and Measuring equipment's and other arrangements) to carry out inspection by RDSO/RITES/IRCON/Sri Lanka officials or their representative to carry out test / witness, inspection shall be provided by the Contractor free of cost.
- 22.6 The inspection charges shall be paid by the contractor to the Inspecting Agencies & shall be included in the quoted rates.
- 22.7 In case the material/equipment offered for inspection fails during inspection, the contractor shall replace the same and get the inspection completed. However, if the contractor is not able to replace defective material/equipment and the inspecting agency has again visited the supplier/manufacturer's premises for conducting the inspection, the entire cost of re-inspection including travel, lodging and boarding etc. shall be borne by the contractor.
- 22.8 In case of any ambiguity or clarification regarding inspection/inspecting agency, decision of employer shall be final and binding on the contractor/firm.

22.9 CONSIGNEE INSPECTION

- a) For all the material to be inspected by consignee, the contractor shall submit manufactures guarantee certificate stating that the concerned material is in accordance with the specification and as per drawing approved by IRCON/SLR. The contractor shall also submit the inspection



performa to be approved by IRCON/SLR before inspection.

- b) The contractor shall submit catalogues of all the equipment as well as a list of tests proposed for all the equipment. A general overview of each of proposed tests shall be included in the documents.
- c) EI materials like VDUs, DC-DC converter, Portable work stations, interconnecting cables and connectors, wiring materials, Racks, Pre-wired crank handles, cable route marker, furniture's etc., Materials will be of reputed make and inspected by consignee.
- d) Any of these pre given description or documents shall not limit in any way the contractor's obligation to complete each and every test as specified and necessary to demonstrate the satisfactory performance of the system.
- e) The Contractor shall submit for the client/ employer's approval all detailed test procedures and final schedule for the test.
- f) **INSPECTION OF WORK**

The Sri Lanka Railways/IRCON or its representative may inspect and test the various portion of work at all the stages and shall have full power to reject all or any portion of work that he may consider to be defective or inferior quality of materials workmanship or design in comparison to what is called for in the specification. In event of rejection of any work already executed and not in accordance with specification as in tender and / or as determined by the engineer or which the contractor has been appraised, the contractor shall carry out alterations/replacements to such work to the satisfaction of the engineer for which no additional expenses will be borne by the IRCON.

23.0 Work Program and Submission of Monthly progress report

Contractor shall submit the Work completion program, planning program, Method Statement, details of materials procured/installed/balance, weather records, records of manpower deployed at site and other relevant/required details within specified time as directed by the Engineer for the period concerned.

Three copies of Progress reports shall be submitted by the contractor on monthly basis and shall include photographic records of minimum 15 colour photographs of construction works carried out during the period concerned. The contractor shall provide, erect, maintain, and reposition as required the traffic signs, diversion boards, barriers, traffic control signs and such other measures as may be necessitated by progress of works during work execution at track and level crossings.

24.0 PACKING & MARKING:

- 24.1 All the materials shall be dispatched in best quality non-returnable packing.
- 24.2 The material shall be securely packed and each packing will be marked as per specifications.
- i) The contractor shall pack at his own cost the stores sufficiently and properly for transit by rail/road, air and/or sea as provided in the contract so as to ensure their being free from loss or damage on arrival at their destination.

IRCON/S&T/1800021/12239



- ii) All containers (including packing cases, boxes, tins, drums and wrappings) in which the stores are supplied by the contractor shall be considered as non-returnable and their cost as deemed to have been included in the contract price.
- iii) Each bale or package, delivered under the contract shall be marked by the Contractor at his own expense. Such marking shall be distinct (all previous irrelevant marking being carefully obliterated) and shall clearly indicate the description and quantity of the stores, the name and address of the consignee, the gross weight of the package and the name of the contractor with a distinctive number of mark sufficient for the purpose of identification. All markings shall be carried out with such material as may be found satisfactory as regard quickness of drying, fastness and indelibility.
- iv) Materials and Equipment meant for each station shall be packed in separate boxes and marked with the name of station, consignee and railway.
- v) The inspecting officer may reject the stores if the stores are not packed and/or marked as aforesaid and in case where the packing materials are separately prescribed, if such materials are not in accordance with the terms of the contract. Such rejection of the stores by the Inspecting Officer shall be binding on the Contractor.
- vi) Each bale or package shall contain note specifying the name and address of the Contractor the number and date of the acceptance of tender and the designation of the Controlling officer.

25.0 DISPATCH DOCUMENTS FOR TRANSPORTATION OF ALL SUPPLIES BY RAIL & ROAD:

25.1 The Contractor shall arrange to dispatch the following documents to the Employer:

- a) Two (2) copies of Contractor's signed invoice.
- b) Two (2) copies of Delivery Challan and Packing List.
- c) Two (2) copies of Inspection Certificate/ dispatch clearance, if any, issued by the Employer.
- d) Two (2) copies of manufacturer's test certificate.
- e) OEM's Warranty certificate

25.2 **The successful bidder shall submit, after the vendor approval by client, MoU with OEM of electronic Interlocking stating that design, installation, testing and commissioning of Indoor signaling work will be done by team of OEM only and OEM will deploy at least one engineer till completion of DLP period.**

26.0 STORAGE AND CONSUMPTION OF MATERIALS AT SITE

- 26.1 The material supplied by contractor shall be taken into Books of Records (Ledger/ Material register/DMTR) at the store after testing/checking of the material and necessary paper work by IRCONs representative and handed over to contractor for further installation and commissioning in the stations/sections.
- 26.2 The contractor shall arrange suitable storage accommodation to store the materials.
- 26.3 In case of any materials being provided or arranged by the SLR/IRCON representative, the Contractor shall make his own arrangements for storage of same.
- 26.4 In addition to construction of store/depot/warehouse at a suitable location at site, if required, the Contractor shall also construct suitable Go-downs at site of work for storing S&T materials ensuring safety against damage by sun, rain, dampness, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his own cost.

IRCON/S&T/1800021/12239



- 26.5 Materials brought to the site by the Contractor/issued from the store to the contractor shall be deemed to be the property of the SLR/IRCON. Contractor shall not remove these materials from the site without the written permission of SLR/IRCON's Engineer. The safety of these materials shall be the responsibility of Contractor at his own cost.
- 26.6 The contractor shall provide an acknowledgement of receipt of materials as per format enclosed in **Annexure XIV** for the materials issued from the store by IRCON/SLR to the contractor.
- 26.7 The contractor shall keep the custody of materials issued to the Contractor like Signaling cables, Quad cables by SLR/IRCON after issue of Indemnity bond as per format (**Annexure – XIII**).

27.0 RECORD OF MATERIALS

- 27.1 The Contractor shall on demand produce to the Engineer original receipts / vouchers/invoices in respect of the supplies. The Contractor shall ensure the materials brought to site are in sealed containers/packing's bearing manufacturers marking.
- 27.2 The above obligations are without prejudice to the other obligations of the Contractor.

28.0 LONG TERM AVAILABILITY OF SPARES AND SYSTEM SUPPORT

- 28.1 The tenderer shall give an undertaking to supply on payment all maintenance spares and tools required for the equipment for a minimum period of 08 years.
- 28.2 The manufacturer shall guarantee that spare parts for the system shall be available for life cycle period. At least two-year notice shall be given to the IRCON/Railways before any equipment or components are discontinued or phased out from the manufacturing plans. This will enable the IRCON/SLR to assess the lifetime requirement of spares needed and order in sufficient quantity prior to stoppage of the manufacture.
- 28.3 That the successful tender shall further guarantee that if in case he goes out of production of spare parts, he shall supply the full manufacturing drawings/details along with the specifications of the materials at no cost to the IRCON/SLR, if and when required for the equipment to be fabricated or procure from other sources by the IRCON/SLR.

29.0 Provision of vehicle for Movement and supply of software

- 29.1 The contractor shall deploy one no. dedicated vehicle (with fuel and driver) for movement of IRCON S&T Engineers in Colombo/project site for the period of 22 months without any additional cost. Vehicle to be deployed within 30 days from the date of award of work. Per month limit shall be 3000 km. Any excess or deficit in the monthly limit of 3000 km shall be carry forwarded to the next month till the limit of 66000 km (3000x22) is exhausted. Expenses on Salary and accommodation of the driver shall be borne by the contractor. Vehicle shall be in good condition and registration of the vehicle shall not be prior to 8 years of award of work. Deduction of \$ 2000 Per month shall be done from the running bills in case of non-deployment of the vehicle.
- 29.2 Contractor shall supply Adobe DC Pro license and MS Project licensed software for the validity of two years without any additional cost. The Softwares shall be supplied within 30 days from the date of award of work.

30.0 Responsibility for the contractor material:

- 30.1 The IRCON / Railway Administration will not be responsible for loss or damage to the contractors'



materials, equipment, tools & plants due to floods, theft or any other cause or causes whatsoever.

- 30.2 The contractor shall be held responsible for any damage to Railway property like telephone lines, cables which may be caused by any of his action in connection with or in the execution of the work.

31.0 Risk in the Stores:

The contractor shall perform the contract in all respect in accordance with the terms and conditions thereof. The materials and every constituent part thereof, whether in the possession or control of the Contractor, his agents or servants or a carrier or in the joint possession of the contractor, his agents or servants and the purchaser, shall remain in every respect at the risk of the contractor, until their actual delivery to the consignee at the stipulated place or destination or location as provided in the Contract Agreement. The contractor shall be responsible for all losses destruction, damage or deterioration of the stores/ materials from any cause whatsoever while the materials after approval by the inspecting officer are awaiting dispatch or delivery or are in the course of transit from the Contractor to the consignee. The contractor shall alone be entitled and responsible to make claims against transporting carrier in respect of non-delivery, short delivery mis-delivery, loss, destruction, damage or deterioration of the goods entrusted to such carrier by the contractor for transmission to the consignee.

32.0 SAFETY MEASURES:

The following measures should be adopted to ensure safety of the trains as well as work force.

- 32.1 The contractor shall not start any work without the presence of competent Supervisors at site.
- 32.2 Wherever the road vehicles and/or machinery are required to work in the close vicinity of railway line, the work shall be so carried out so that there is no infringement to the Railways schedule of dimensions. For this purpose, the area where road vehicles and/or machinery are required to apply, shall be demarcated and acknowledged by the contractor. Special care shall be taken for turning/reversal of road vehicles/ machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.
- 32.3 The look out and whistle caution orders shall be issued to the trains and speed restrictions imposed where considered where necessary for protection of trains.
- 32.4 The supervisor/workmen should be counseled about safety measures.

IRCON/S&T/1800021/12239

**ANNEXURE-VIII**

(Ref. Sub-clause 9.1 of Instructions to Tenderers)

(To be executed on a non-judicial stamp paper of ₹100/- only)

BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(Tender Notice No. And Date)

Ref.: (Bank Guarantee No. and Date)

To

IRCON INTERNATIONAL LIMITED

[Acting through _____ (Tender Inviting Authority) & Address]

WHEREAS, _____ [name of Bidder] (hereinafter called "the Bidder") intends to submit his bid dated _____ (date) for

" _____ [name of work]" (hereinafter called "the Bid").

1. KNOW ALL PEOPLE by these presents that we _____ [name of bank] of _____ (name of country) having our registered office at _____ (hereinafter called "the Bank") are bound unto IRCON INTERNATIONAL LIMITED (hereinafter called "the Employer") in the sum of 'USD _____ * [amount of Guarantee], _____ [amount in words] for which payment well and truly to be made to IRCON INTERNATIONAL LIMITED. The bank binds itself, its successors and assigns by these presents with the common seal of bank this _____ day of _____ 2023 and undertake to pay to the Employer upto the above amount upon receipt of their first written demand, without IRCON INTERNATIONAL LIMITED having to substantiate their demand.

2. We, the----- [name of bank], and our branch at.....(Indicate detail address of branch with Code No.), undertake to pay to IRCON INTERNATIONAL LIMITED up to the above amount upon receipt of their first written demand, without IRCON INTERNATIONAL LIMITED having to substantiate their demand, PROVIDED THAT in their demand IRCON INTERNATIONAL LIMITED will note that the amount claimed by them is due to them owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

3. This guarantee will remain valid and in full effect up to and including the date-----**. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

4. This Bank Guarantee shall be operative only if it is accompanied by a separate advice sent by _____ (Name of Issuing Bank, with address) on _____ (Name of Employer's Bank, with address) IFS code _____ through Structured Financial Messaging System (SFMS) and authenticated by the Employer's Bank.

DATE _____ SIGNATURE OF THE BANK _____

SEAL _____

WITNESS _____

[Signature, name and address]

* The Bank should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as mentioned in the Tender Notice named on top.

** Date to be filled in keeping a margin of minimum 180 days after the last date for submission of Bids as stated in the "Notice Inviting Tenders" or as executed by IRCON INTERNATIONAL LIMITED (through corrigenda).

IRCON/S&T/1800021/12239



ANNEXURE-X (Ref. clause 13.2 of Special Conditions of Cont (To be executed on non-judicial stamp paper of Rs 100 only)

PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To
IRCON International Limited,

[Acting through _____ (Project Incharge) & Address of the Project]

WHEREAS _____ [name and address of contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute the work of " _____ " [name of Contract and brief description of Works] (hereinafter called "the Contract.");

AND WHEREAS it has been stipulated by you in the said Contract that the contractor shall furnish you with a Bank Guarantee by a Scheduled Bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ [amount of Guarantee], _____ [amount in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we unconditionally agree and undertake to pay you, without any demur or protest, at once, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as mentioned in demand letter, without requiring you to prove or to show grounds or reasons for your such demand for the sum specified therein, in the first letter of invocation.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to _____ (the date of completion of the work plus DLP period).

We, the _____ Bank further agree that this guarantee shall be invocable at our place of business at New Delhi/NCR/Project HQ (Indicate detail address of branch with Code No.). The branch at New Delhi/NCR/Project HQ is being advised accordingly.

This Bank Guarantee shall be operative only if it is accompanied by a separate advice sent by _____ (Name of Issuing Bank, with address) on _____ (Name of Employer's Bank, with address) IFS Code _____ through Structured Financial Messaging System (SFMS) and authenticated by the Employer's Bank.

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank:

Address:

Date:

* The Bank should indicate detailed address of New Delhi/NCR/Project HQ branch along with its Code No.

IRCON/S&T/1800021/12239

**ANNEXURE-XI**

(Ref. clause of Special Conditions of Contract)

(To be executed on non-judicial stamp paper of ₹100 only)

BANK GUARANTEE FOR RELEASE OF 50% OF SECURITY DEPOSIT/RETENTION MONEY

To
IRCON International Limited,
[Acting through _____ (Project Incharge) & Address of the Project]

WHEREAS _____ [name and address of contractor*] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute the work of " _____ " [name of Contract and brief description of Works] (hereinafter called "the Contract.");

AND WHEREAS it has been agreed by you in the said Contract that the Contractor has option to get release 50% of the Retention Money against un-conditional Bank Guarantee from a Scheduled Bank acceptable to you as security for compliance with Contractor's obligation in accordance with the contract (Sub clause _____).

AND WHEREAS the Contractor has opted to get released the 50% of the retention money against an unconditional Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ [amount of Guarantee], _____ [amount in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid upto _____ (till the IRCON International Limited certifies repayment of retention money in accordance with Sub-clause 13.5 of Special Conditions of Contract).

We, the _____ Bank further agree that this guarantee shall be invokable at our place of business at New Delhi/NCR/Project HQ (Indicate detail address of branch with Code No.)*. The branch at New Delhi/NCR/Project HQ is being advised accordingly.

This Bank Guarantee shall be operative only if it is accompanied by a separate advice sent by _____ (Name of Issuing Bank, with address) on _____ (Name of Employer's Bank, with address) IFS Code _____ through Structured Financial Messaging System (SFMS) and authenticated by the Employer's Bank.

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank:

Address:

Date:

* The Bank should indicate detailed address of New Delhi/NCR/Project HQ branch along with its Code No.

IRCON/S&T/1800021/12239

**ANNEXURE-XII**

(Ref. clause no.: 15 of Special Conditions of Contract)

FORM OF AGREEMENT

(To be executed on requisite value of stamp Papers)

AGREEMENT

THIS AGREEMENT made on _____ day of _____ (Month/year) between IRCON International Limited, acting through (Chief General Manager/IRCON/Colombo, No12, Kinross Avenue, Colombo -04, Sri Lanka) (hereinafter called "the Employer/Engineer") of the one part and _____ (name and address of the Contractor) (hereinafter called "the Contractor") of the other part.

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

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - 1 Agreement
 - 2 Letter of Acceptance of Tender
 - 3 Addendum(s)/Corrigendum(s), if any.
 - 4 E-Procurement Notice
 - 5 Instructions to the Tenderers
 - 6 Appendix to Tender
 - 7 Form of Bid
 - 8 Special Conditions of the Contract
 - 9 General Conditions of Contract
 - 10 Technical Specifications
 - 11 Relevant codes and Standards
 - 12 Drawings
 - 13 Bill of Quantities
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IRCON/S&T/1800021/12239



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

(Name, Designation and address
of the authorized signatory)

(Name, Designation and address
of the authorized signatory)

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

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

Witness:

Witness:

1.

1.

2.

2.

Name and address of the witnesses to be indicated.

IRCON/S&T/1800021/12239

**ANNEXURE-XIII**

(Ref. Special Conditions of Contract)

STANDING INDEMNITY BOND

(FOR ON ACCOUNT PAYMENTS & STORES SUPPLIED BY IRCON)

(On Stamp paper of Requisite Value)

We, M/s..... hereby undertake that we hold at our stores Depot/s at for and on behalf of IRCON (herein after referred to as "the Purchaser") all materials for which "On Account" payments have been made to us against the contract for "....." vide letter of Acceptance of Tender No..... dated and the materials handed over to us by the purchaser for the purpose of execution of the said Contract, until such time the materials are duly erected or otherwise handed over to him.

We shall be entirely responsible for the site custody and protection of the said materials against all risk till they are duly delivered as erected equipment to the purchaser or as he may direct otherwise and shall indemnify the Purchaser against any loss, damage or deterioration what so ever in respect of the said materials while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any Officer authorized by the Employer/Engineer.

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the purchaser shall be entitled to recover from us the full cost as per prices included in the Contract (as applicable) and also compensation for such loss or damage if any along with the amount to be refunded without prejudice to any other remedies available to him by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

Dated this day of, 20....

for and on behalf of

M/s. (Contractor)

Signature of Witness:

Name of Witness in block letters:

Address:

IRCON/S&T/1800021/12239



ANNEXURE-XIV
(Ref. Special Conditions of Contract)

ACKNOWLEDGEMENT

FOR RECEIVING MATERIALS FROM IRCON

STATION :

DATE :

Sub: -Receipt of Materials from IRCON.

It is hereby acknowledged that the following material as detailed has been received in full and good condition by me on

..... at for the work coming under the Agreement

No.....

dated

.....

SI.No. Description of Material Quantity Remarks if any

.....Witnessed by: -

.....
(Signature of Purchaser's
Representative with Designation)

.....
(Signature of Contractor or
Contractor's Representative)

IRCON/S&T/1800021/12239

**ANNEXURE-XVI**

(Ref. clause no.: 14 of Special Conditions of Contract)

Form PER -1**Proposed Personnel**

Bidders should provide the names of suitably qualified personnel to meet the specified requirements stated in **clause no.: 14 of Special Conditions of Contract**. The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position: Project Manager (S&T)
	Name:
2.	Title of position: Site Engineer (S&T)
	Name:
3.	Title of position: Site Engineer (S&T)
	Name:
4.	Title of position: Wireman / Fitter / Carpenter
	Name:

IRCON/S&T/1800021/12239

**ANNEXURE-XVII**

(Ref. clause no.: 14 of Special Conditions of Contract)

Form PER – 2: Resume of Proposed Personnel

Name of Bidder:		
Position		
Personal Information	Name:	Date of Birth:
	Professional Qualifications:	
Present Employment	Name of Employer:	
	Address of Employer:	
	Telephone:	Contact(manager/ personal officer):
	Fax:	Email ID:
	Job Title:	Years with present Employer:
From	To	Company/ Project/ Position/ Relevant technical and Managerial experience

IRCON/S&T/1800021/12239

**SECTION-VI****GENERAL CONDITIONS OF CONTRACT**
(As Attached)



SECTION-VII
TECHNICAL SPECIFICATION

TABLE OF CONTENTS

SN	DESCRIPTION
1.	GENERAL
2.	SCOPE OF THE WORK
3.	BLOCK WORKING
4.	ELECTRONIC INTERLOCKING
5.	POINT MACHINE
6.	TRACK CIRCUITS
7.	SIGNALS
8.	POWER SUPPLY ARRANGEMENT
9.	EQUIPMENT CABINETS AND CONTAINERS
10	CABLES
11	COMMUNICATION
12	SIGNALLING AND POWER CABLES
13	LIGHTENING PROTECTION AND SYSTEM
14	TRAINING AND TECHNOLOGY TRANSFER
15	SPARE PARTS AND TOOLS
16	DEFECT LIABILITY AND WARRANTY
17	AS BUILT DRAWINGS
18	MAINTENANCE VEHICLES
19	SIGNAL BASES
20	CABLE DUCT
21	CONCRETE BASES SIGNAL AND LOCATION CASES
22	COMMUNICATION

IRCON/S&T/1800021/12239**1. GENERAL:**

- 1.1 IRCON has been entrusted with the work of EI based Signaling & Telecommunication system between Anuradhapura and Maho section of Sri Lanka Railway having 7 stations and auto section length is approximately 70 km.
- 1.2 Site is approximately 143 km from Colombo.
- 1.3 Block working shall be automatic block working.
- 1.4 SLR expects to install a Signaling system which performs high in Safety, reliability and availability in the rehabilitated Railway line from Maho to Anuradhapura.
- 1.5 All components used in the system shall be capable in working in tropical Railway environments (10°C to 60°C of ambient temperatures, relative humidity of 80% and airborne salinity environment).
- 1.6 System shall be designed for 120 Kmph operating speed.
- 1.7 Entire system shall be "Fail Safe" and shall demonstrate a high degree of Reliability and availability.
- 1.8 Complete system proposed by the bidder shall be based on Fail-Safe principles. All Vital signaling systems including the sub systems shall be **CENELEC SIL 4** certified by an internationally recognized accredited agency.
- 1.9 Three aspect, Multi unit Colour Light signals shall be provided as per Sri Lanka Railway Signaling standards.
- 1.10 Complete system shall be designed and supplied as per the standards of Sri Lanka railway.

2. SCOPE OF WORK:

As per SCC Clause 2,
Technical specifications are also part of the scope of work.

3. BLOCK WORKING:

- 3.1 Automatic Block signaling shall be provided for permissive block operation. Continuous train detection shall be provided in block sections.
- 3.2 Permissive Automatic Block Sections shall be provided between crossing stations. Section between two stations shall be divided into three block sections using one Automatic block signal and the Automatic approach signal.
- 3.3 Block direction shall be able to establish by clearing advanced starter (LSS). Block shall be automatically set to normal if train(s) completely arrived to the station. Block direction shall not be able to reverse if block section is occupied or an Advance starter (LSS) is cleared to enter the block.
- 3.4 Existing Anuradhapura station having relay based interlocking system where modification is required for automatic block working between Anuradhapura and Srawasthipra station where EI based Interlocking to be provided under this contract. Existing block working is TABLET BLOCK system.

IRCON/S&T/1800021/12239

- 3.5 **Recovery from Block Failure** - LSS shall not automatically lit when block failure is restored.
- 3.6 Block direction shall be able to establish by clearing advanced starter (LSS). Block shall be automatically set to normal if train(s) completely arrived to the station. Block direction shall not be able to reverse if block section is occupied or an Advance starter (LSS) is cleared to enter the block.
- 3.7 All the wayside signaling equipment related to a particular station and the either side Block sections shall able to be controlled by an Electronic Interlocking (E) system dedicated to that particular station.
4. **ELECTRONIC INTERLOCKING:**
- 4.1 EI system shall be a **SIL4 (CENELEC)** certified or equivalent to SIL 4 certified by RDSO. **Contractor is not free to supply any EI of his choice. Proposed brand and model shall be approved by Sri Lanka Railway.**
- 4.2 **Proposed brand and model shall have been installed at least in two countries on (National Level) passenger railway lines. The number of installations shall not be less than 200 nos.**
- 4.3 EI shall able to be conveniently interfaced to remote controlling (CTC) without assistance of additional systems. Inbuilt CTC node in EI is preferred. train detection shall be provided in block sections.
- 4.4 Permissive Automatic Block Sections shall be provided between crossing stations. Section between two stations shall be divided into three block sections using one Automatic block signal and the Automatic approach signal.
- 4.5 EI system shall be capable of delivering the latest features of signaling systems and shall be of a MTBF greater than 101,713 hours for all the critical constituents.
- 4.6 EI system and its sub systems (indoor and outdoor sub systems, if any) provided shall be able to run without environmental controlling at prevailing tropical environment in Sri Lanka.
- 4.7 At least 20% of spare input and outputs shall be provided in EI for future expansion.
- 4.8 Automatic route setting shall be provided with Entry to Destination principals.
- 4.9 The proposed EI system shall be in a modular type architecture.
- 4.10 The signaling unit denotes permissible speed ahead. (Speed Signaling).
- 4.11 Within station limits routes shall be set by from entry to destination.
- 4.12 Automatic Block signaling shall be provided for permissive block operation.
- 4.13 Redundancy shall be available at all critical levels including the power supply.
- 4.14 20 % Spare modules/cards of EI shall be given to the SLR.
- 4.15 EI equipment shall be capable of recording the status of the various parameters with the time stamps and such records shall prevail over three months of period for retrieving on requirement.

IRCON/S&T/1800021/12239

In case of that the above requirement shall not be fulfilled by the EI then contractor shall provide a Event/Data logger for each EI installation and commission same.

- 4.16 All required tools such as programming tools, application logic programming tools, compilers, CAD tools and etc. shall be given to SLR for future modifications without contractor/ OEM support.
- 4.17 Signaling system shall able to be operated by the local Station Masters using Local Operating VDU based panel.
- 4.18 Operating panel shall directly communicate with the interlocking plant and shall provide information with a very high reliability. Modifications for the Operating panel in case of system expansions and changes should able to be carried out without difficulty.
- 4.19 CTC operation will not be installed at the initial stage but SLR expects to connect the stations under the project to a Controlling Centre in the future. Therefore, the EI systems should be configured and provisions shall be available to connect CTC System in future.
- 4.20 System information shall be transferred to Central Controlling Centre at Anuradhapura and shall be displayed in a Video Wall. Thus Central connectivity will be restricted to supervision and monitoring mode.
- 4.21 In future the proposed signaling system shall be capable of interfacing into a Centralized Traffic Controlling (CTC) system. CTC system shall not necessarily be from the same supplier, but signaling systems shall be compatible in working with commonly used Centralized Traffic Controlling Systems
- 4.22 All indications and symbols used shall be matched to SLR present practice.
- 4.23 Indications and controls are as under:

Indications/Information	Controls/Commands
Track occupation	Route setting on Entry Destination principles
Point switches status (including working time)	Individual points operations
Track locking	Block operation assistance (if reqd.)
Signal indications	Emergency route cancellations
Route indications	
Block section situation	Emergency operations
Failure Information	Panel bulb testing (Not for VDU)
Alarms	Panel operation authority (on/Oft)
System status	Other system controls as required
Other system information as required	

IRCON/S&T/1800021/12239

5. POINT MACHINES

- 5.1 Point machine shall be 110VDC operated, non-trailable type, Separate rod systems shall be used for switch detection in both position and throw with clamping or locking at destination position.
- 5.2 Separate cable leads shall be used for each points machine connection from the Location boxes.
- 5.3 Point machine connection boxes (Point JB) shall be at IP 54 grade and shall be fitted with a lockable cover and the locking arrangement shall be included in the point machine component.
- 5.4 Point machine assembly shall be weather proof and proper measures shall be taken to prevent corrosion.

6. TRACK CIRCUITS

- 6.1 DC track circuits shall be used for train detection. Maximum track circuit length shall be decided by the bidder in accordance with the type of track circuits proposed and SLR/Engineer will approve the designs at design stage.
- 6.2 Track circuit bonding shall be designed to avoid parallel connections as much as possible and shall stick to series bonding.
- 6.3 Track circuit bonding plans need to be submitted for the approval of engineer before the execution.
- 6.4 The track circuits shall be powered from equipment room and separate backup batteries shall not be provided.
- 6.5 Track circuit shall be robust, shall work without environmental control, reliable and shall be designed with a high immunity level for lightning strikes.
- 6.6 Separate track leads shall be used for each track circuit connection from the location boxes. Track circuit connection boxes shall be at IP 54 grade and shall be fitted with a lockable cover and the locking arrangement shall be included in the track circuit component.
- 6.7 Signal Units and Aspects shall be in accordance with the type and configuration of SLR practice and shall be installed according to the SLR Rules, Regulations and Standards. (Safety Rules, Rules and Regulations of Sri Lanka Railways (Part 1 & 2) published in 1983).
- 6.8 Signal Aspect units shall be in LED type with lamp proving provision. Signal units shall be provided with an appropriate locking arrangement to prevent unauthorized access and the arrangement shall not be a hindrance in maintenance point of view.
- 6.9 Signal aspect shown to the train driver shall always be a meaningful one and system shall be designed to show Red aspect if otherwise. (Signal meanings as described in Safety Rules, Rules and Regulations of Sri Lanka Railways (Part 1 & 2) in 1983).
- 6.10 **Track lead cable-** Armored/non armored covered (insulated) copper cables of a suitable diameter (not less than 2.5 Sq mm) shall be used. Copper cable to be fastened to track leads as per SLR present practice.

IRCON/S&T/1800021/12239



7. SIGNALS

- 7.1 **Main Signals** -SLR is using speed signaling in Three Aspect, Muli Unit Configuration. Units are mounted on High and Dwarf posts according to the yard design. Signal aspect units of main signals shall be of 202 mm diameter of size (or as approved by Sri Lanka Railway). Prevention arrangement for fixing wrong aspect units shall be provided. This type includes home signal, main line and loop line starters and advance starters.
- 7.2 **Block signals** - Block Signals shall be three aspects.
- 7.3 **Approach Signal**- Approach signal consist of two units. Three aspect main unit and a side unit.
- 7.4 **Shunt Signals** –Shunting signals are provided at necessary points in yards both in Standalone type and fixed along with main signals. Shunt Signal aspect units are of 80 mm diameter of size and "Lunar White" or Amber is used.
- 7.5 **Gate Signals** - Gate signals are provided to indicate the status of level crossing barrier protection to the train Crew. Five aspect Level crossing signals shall be used in Warner signal in advance to the Gate Stop signal configuration. Three multiple aspects are used in two multiple aspect configurations in warner signal (Green and Amber) and the gate stop signal (Green and RED).
- 7.6 Signal Units and Aspects shall be reputed and proven products used in similar railway environments (Designed in accordance with EN 50129 and vibration tolerance shall be in accordance with EN 60721). **Signal units shall be weather proof and proper measures shall be taken to prevent corrosion. Marine pad-locks shall be provided.**

All signal units shall be provided with **stainless steel or aluminium enclosures at IP 54** level protection and with a proper locking arrangement (common master key). Signal units shall be of a high service life not less than 30 years and bidder shall produce sufficient evidence for the same. Painting, sun hoods and targets shall be complying with SLR present practice.
- 7.7 LED modules shall be at **IP 65** protection level and at a high **MTBF value not less than 50 000hrs**. Sighting distance of 600m in day light shall be provided. LED modules (other than Red) shall be designed to **withdraw in 50% LED failure**. In such cases, signal circuits shall be designed to show Danger aspect in the particular signal without keeping the signal at blank state. Red aspect LED modules shall be designed to light till the last LED cluster but extending a lamp failure alarm. LED units shall be designed to stand for lightning preferably with built lightning protectors.
- 7.8 Signal posts shall be robust and shall be designed with a proper earthing arrangement to provide high immunity level for lightning strikes to protect LED and related circuits. **Galvanized Signal post shall be supplied as per SLR Practice**. Contractor shall submit a suitable design for all types of signal bases and submit for approval at design stage. Galvanized nut-bolts etc. shall be used. painting scheme for the different type of bases shall be given by the contractor at design stage.

8. LEVEL CROSSING PROTECTION-

Level crossing protection systems shall be in two main types. Tentative List of level crossings with tentative protection type is given below, contractor shall take approved/final list from IRCON/Sri Lanka before start of execution.

IRCON/S&T/1800021/12239

No.	Name of Level Crossing/Stations	Milage (KM)	Proposed Protection	Present Protection	Location
	MHO -station - 136.685				
1	Randenigama Road (140.12 km)	140.120	Bell and Light Bell and Light	up	Block
2	Thambara Road (141.00 km)	141.000	Bell and Light	up	Block
3	Hithoka dawala Road (142.14 km)	142.140	Bell and Light	up	Block
4	Rolawa Road (142 .84 km)	142.840	Bell and Light	up	Block
S	Dethawa Road (144.82 km)	144.820	Full protection	up	Block
6	Kirimetiyawa Road (145.24 km)	145.240	Bell and Light	up	Block
7	Udanagama Road (146.66 km)	146.660	Bell and Light	up	Block
8	Kadawathgama Road (147 .64 km)	147.640	Bell and Light	up	Block
9	Ethatuwewa Road (148.14 km)	148.140	Full protection	MOB	STN Limit
	ABN -Station -148.358	148.358			
10	Amunugama Road (148.86 km)	148.860	Full protection	up	STN Limit
11	Harasiyagama Road (150.56)	150.560	Bell and Light	up	Block
12	Kasikote Road (151.60km)	151.600	Bell and Light	up	Block
13	Getaduwa Road (153.10 km)	153.100	Bell and Light	up	Block
14	Palukadawala Road (164.34 km)	164.34	Bell and Light	up	Block
15	Dewagiripura Road (156.16 km)	156.160	Bell and Light	up	Block
16	Sellam watta Road (157.90 km)	157.900	Full protection	up	STN Limit
17	Ethatuwewa Road (158.00 km)	158.000	Full protection	MOB	STN Limit
18	GLM Station Road (158.12 km)	158.120	Full protection	up	STN Limit
	GLM -Station -158.343				
19	GLM Sathipola Road (158.58 km)	158.580	Full protection	up	STN Limit
20	Private Road (159.04 km)	159.040	NA	up	NA
21	Diwlwewa Road (159.24 km)	159.240	Full protection	up	STN Limit
22	Palugama Road (160.76 km)	160.760	Bell and Light	up	Block

IRCON/S&T/1800021/12239

No.	Name of Level Crossing/Stations	Milage (KM)	Proposed Protection	Present Protection	Location
23	Kelegama Road (161.62 km)	161.620	Bell and Light	up	Block
24	Amunukole Road (162.94km)	162.940	Full protection	up	Block
25	Mahagal kadawaraRoad (165.06 km)	165.060	Bell and Light	up	Block
26	Leekolawewa Road (167.60 km)	167.600	Full protection	up	STN Limit
	SGM -Station -168.184				
27	Siyambalagamuwa Road (168.42 km)	168.420	Full protection	up	STN Limit
28	Fawusi Mawatha (170.70 km)	170.700	Bell and Light	up	Block
29	Mahaweli kolani Road (173.30 km)	173.300	Bell and Light	up	Block
	TBM -Station -177.059				
30	Jaya Mawatha (177.30 km)	177.300 178.960	Full protection Bell and Light	up	STN Limit
31	Dambulu Colony Road (178.96 km)	178.960	Bell and Light	up	Block
32	Bellankadawala Road (180.72 km)	180.720	Bell and Light	up	Block
33	Paindikulama Road (183.58 km)	183.580	Bell and Light	up	Block
34	Thammannawa Road (184.88 km)	184.880	Bell and Light	up	Block
35	Jaya ganga Road (186.88 km)	186.880	Full protection	up	STN Limit
36	Railway station Road (187.88 km)	187.880	Full protection	up	STN Limit
	TLA-Station - 188.038				
37	Thalawa Kekirawa Road (188.34 km)	188.340	Full protection	MOB	STN Limit
38	Hingurawewa Road (189.40 km)	189.400	Bell and Light	up up	Block
39	Moragoda Road (193.36 km) -	196.360	Bell and Light	up up	Block
40	Srawasthiwatta Road (194.84 km)	194.840 Bell and Light	Bell and Light	up	Block
41	Yoda Ela Road (195.30 km)	195.300	Full protection	up	STN Limit
42	Nachchaduwa Road (195.90 km)	195.900	Full protection	up	STN Limit
	SRP -Station -196.5				

IRCON/S&T/1800021/12239



- 8.1 **Bell and Light-** Level crossings with less traffic density will be provided with flashing lights and bells the road traffic. will sense the approaching train using its detection circuits and activate the Bells and Flashing Red Lights to the road traffic while displaying a flashing white signal to the train driver (**Flashing white signal to the train driver** shall be driven by a proven output of the activation of Red flashing lights to road vehicles). **Pre-warning time shall be 30 seconds** and system shall be operated using commercial power (230 VAC) by default but be backup by a battery supply. Further to commercial power supply power shall be extended from nearest crossing station. System will reset with the passage of train. Road signal shall display Amber for the road vehicles after been released by the passage of the train. Bell and Light system is an unattended and automatically activated by approaching train, therefore the system autonomy shall be at a high level with proper **power backing up arrangement not less than 24 hours without commercial power supply** (the source supply).

Two warning boards of 4'x3' size shall be provided ahead of the road lights to indicate the meanings of road lights and inform the oncoming level crossing. Specification of a sample board is attached but the final design will be done at the design stage. Approval will be given by SLR. Central monitoring system will be used to monitor the level crossing status and therefore the information such as availability of main supply, controller failure, etc. should be made available to be displayed at the controlling centre for inter facing with a central monitoring system which will be implemented in future.

Failure indications of the bell and light systems should be displayed at the Local Control Panels at adjacent stations and this shall be provided by the contractor.

- 8.2 **Barrier-** Level crossings with more traffic density will be provided with barrier protection addition to the flashing lights and bells for the road traffic. Barrier system will work in the similar manner and will lower a boom across the road blocking the road traffic. Train driver will be provided with two stage signaling (Warner signal and Gate stop Signal). Gate operator will have to give authority (press button) to light the proceed signals to the train confirming the safe closure of barriers. Barrier mechanism shall able to be operated manually at emergencies with due consideration to signal integrity. The gate warner signal shall in the configuration to show the current status of the Gate signal ahead at the Barrier location. In this case it is required to arrange sufficient time for the warner signal to display green (means the level crossing ahead is already closed and Gate signal is displaying Green aspect) for the incoming train. Warner signal shall be positioned in 1 Km distance ahead to the Gate signal and Gate signal shall be positioned in 180m ahead to the level crossing. Gate activation circuit is suggested to be posted further 1 km ahead to the warner signal to meet the requirement of closing the gate for the incoming train before reaching to the warner signal. DC track circuits or any other proven method in passenger railways shall be used for detecting the incoming train. Level crossing barriers fall in the station limit shall be integrated with the yard signaling instead of separate gate signaling system (W and X signals). However, if only the level crossing signals happened to be positioned inside the yard limits, then the level crossing status shall be integrated into the yard signals too (Admission and Starter signals). **Indications for the barrier status to be transmitted to the equipment room at the relevant territory and status of the barriers within the station limits to be displayed on the relevant Local Control Panel. Backup power for the barrier systems shall be 4 hours.**

9. POWER SUPPLY ARRANGEMENTS

- 9.1 SLR/IRCON will assist to obtain power supply from Ceylon Electricity Board. Supply will be on Single Phase / 230VAC / 30 A rating and proponent shall request if any deviation is required.

IRCON/S&T/1800021/12239



- 9.2 Signaling system shall be supplied with a backup power supply arrangement and uninterrupted power supply arrangement on top of that depending on the system requirement.
- 9.3 Backup power shall be in the form of Diesel Generator and batteries with a capacity at least sufficient for 6 hours autonomy. Backup power arrangement shall be available at all stations and backed up power shall be extended throughout the block section. All signals, track circuits, point machines and signaling circuits shall use backed up power.

9.4 DIESEL GENERATOR

Diesel generator shall be a silent one of a reputed brand and commonly used type in Sri Lanka (preferably in SLR). Service level agreement (SLA) shall be possible with a local authorized dealer for the proposed brand/model.

Basic specifications for the diesel generator shall be as follows.

KVA rating	-15 KVA (to be decided by bidder if differs)
Power output	- Single Phase 230VAC of 50 Hz
Cooling type	- Air cool
Fuel tank	- Sufficient for 12 hours
AVR	- +5% of rated voltage
Other	- ATS panel and auto start, minimum noise level (sound proof)

- 9.5 Power supply including such backup arrangements will be shared by Signaling, Information and Telecommunication systems. Separate power supplies will not be needed but the distribution arrangement with proper safety and redundancy measures will be required.
- 9.6 Power supply system shall be designed to **avoid** any disturbance or black out, resulting unsafe or unreliable situation Proper measures shall be adopted to prevent the power system by the lightning strikes and surges.

10. EQUIPMENT CABINETS AND CONTAINERS

Equipment cabinets and containers shall be made to stand all weather conditions at least at IP 54 level and rust proof. Proper measures shall be taken against vandalism at the design. Proper locking arrangement with a common key to be provided. All cabinets and containers shall be corrosion free. Cabinets shall be erected on a concrete base. The cabinets shall be installed rail level or above. **Cabinets (Location boxes) shall be painted with primer and marine grade and anti-corrosive paint. Nuts and Bolts used for mounting shall be properly galvanized.**

11. CABLES

- 11.1 All cables shall be direct burry type and marked with meter reading as " [meter reading] (space) SLR] (space)[cable description]". Cables shall be drawn using the manholes provided under the track rehabilitation project. Route markers to be provided to identify the cable line at suitable intervals. Direct buried armored Cu / PVC insulated cables shall be used at a suitable diameter and core configuration. The power cable shall be Cu/ XLPE / PVC/ armored type and to be installed between stations. Power cable shall be terminated at substations and at level crossings. Cable route markers shall be installed by the contractor on complete route.
- 11.2 Optical fiber cables shall be used for block communication and to connect the control communication system. Fiber cables shall be terminated at all stations and substations. Jointing shall be done using proper enclosures and manholes shall be provided for alt such joints. Fiber cable of at least 24 core single mode direct burry type shall be provided throughout the entire stretch.
- 11.3 Copper cables may be used for Gate telephones and other telephones.

IRCON/S&T/1800021/12239

- 11.4 Armored/non armored covered (insulated) copper cables of a suitable diameter (not less than 2.5 Sq mm) shall be used. Copper cable to be fastened to track leads as per SLR present practice.
- 11.5 Cable layout plan shall be submitted for the approval before laying the cables.
- 11.6 Cable duct consisting two PVC Pipes of 160 mm diameter in Yard and one PVC pipe of 110 mm diameter for block section are available for laying of main cables. Manholes are provided at every 200 m interval and termination pits at every 900 meters for pulling and jointing of cables. Contractor shall design the system accordingly.

12. LIGHTNING PROTECTION FOR THE SYSTEM

Proposal shall include a proper level of lightning protection scheme against all such vulnerabilities.

- Class A Protection shall be provided at all stations.
- All cables shall be properly earthed (sheath or separate earthing wire) at the source end and field end to be kept floating.
- All external cable leads to be protected by surge protection devices at the cable distributors in equipment room and location cases.
- All parts of the enclosures and racks to be star connected to a main earth connector inside the equipment room using separate wires and then connected to earth electrode using exothermic welding. Inspection point (inspection pit) for the earth electrode connection shall be provided.
- Same method to be adopted for all types of location cases and enclosures.
- **All steel structures shall be connected to earth.**
- Expected earth resistance level is as follows.
 - **Equipment rooms below 1 ohm to earth**
 - **Station control room less than 3 ohm**
 - **Location cases less than 3 ohm**
 - **Signal posts less than 5 ohm**

13. TRAINING AND TECHNOLOGY TRANSFER

- 13.1 All Training tools such as programming tools, application logic programming tools. Compilers, CAD tools and etc. shall be given to SLR officers for future modifications without contractor/OEM support.
- 13.2 Contractor shall provide training for the SLR signaling officers and operating officers to gain knowledge in system operation, maintenance, and modifications. Training shall consist of both local and foreign.
- 13.3 Comprehensive training on signaling system shall be given to the SLR signaling officers so that the SLR officers shall be able to perform simple modifications of the system and maintain the system at required level of availability.
- 13.4 Operator training has to be arranged for the operating officers to perform operations efficiently using all features of the system. Transportation Officers and Station Masters shall be trained for this purpose.
- 13.5 Necessary training materials and facilities (To and Fro air tickets, transport, food, and lodging, shall be arranged by the contractor. Hotel shall be 4/5-star rating. Training schedule along with place of training shall be approved by Sri Lanka Railway.
- 13.6 **Engineers, Technical Officers, and Technicians** shall be trained for this purpose. Proposal shall include the training plan according to the table below.

IRCON/S&T/1800021/12239**Training Schedule at Manufacturer's Place.**

Tr. No.	Contents of Training	Period	Location	Participants
1	Detailed Training on Electronic Interlocking	02 Weeks	Manufacturer's Training Facility	04 Engineers and 04 Technical Officers
2	Telecommunication	02 Weeks	Manufacturer's Training Facility, IRISSET	02 Engineers
3	Operation and maintenance training	02 Weeks	Manufacturer's Training Facility	02 Technical officers and 06 Technicians.
4	Detailed training in operating.	01 Weeks	Manufacturer's Training Facility	04 Operating officers.

Training Schedule in Sri Lanka.

Tr. No.	Contents of Training	Period	Location	Participants
1	Basic Training on Interlocking and Communication.	01 Week	Local Training Facility in Sri Lanka	04 Engineers and 16 Technical Officers
2	Basic Training in operating	01 Week	Local Training Facility in Sri Lanka	20 operating Officers
3	Basic Training on maintenance	01 Week	Local Training Facility in Sri Lanka	20 Technicians

14. SPARE PARTS AND TOOLS:

Contractor shall supply the spares against item no. 38 of BOQ as per the list attached for the purpose of maintenance of the system after warranty period.

15. DEFECT LIABILITY AND WARRANTY

Complete system shall undergo a defect liability period of 1 year and followed by a comprehensive warranty period over 3 years.

Any defective material during above 4 years will be replaced by contractor free of cost within reasonable speed and time.

16. AS BUILT DRAWINGS

All the documents such as Circuit Diagrams, Schematic diagrams of the equipment Installations, equipment manuals and other relevant document in as built basis shall be supplied to IRCON/SLR in both hard and soft copies. Such hard copies shall be arranged in all equipment rooms and SLR

IRCON/S&T/1800021/12239

signal department drawing office for references. Cables indicating joints locations and duct line to be covered in separate set of drawings.

Six sets of each as built drawing such as selection table, interface circuit, logic circuit, Track bonding plan, cable core plan, location diagrams, CTR charts, Power supply diagrams, LC Wiring Circuits, all maintenance and installation manuals of OEMs, or any other drawing as per the requirement shall be provided by the contractor after completion of work along with six CDs as per the directions of IRCON/Sri Lanka Railway.

17. COMMUNICATIONS.

- 17.1 Contractor shall propose a suitable system for Control communication between stations from Maho to Anuradhapura (both including) and the control office Anuradhapura.
- 17.2 Data communication required for transfer information to control center. (Data from data logger and etc.)
- 17.3 E-PABX using Cisco CUCM server is exist at Anuradhapura control center with Adequate additional telephone line capacity. Therefore, extending VLAN/LAN network up to Maho would be sufficient to provide telecommunication and data communication facilities for crossing stations, sub stations and level crossings.
- 17.4 All crossing stations except Maho station shall be provided with 04 nos. of IP Phones and analog phones for level crossings. Maho station shall be provided with 08 nos. of IP Phones and analog phones for level crossings.
- 17.5 CTC interface and Data logger interface shall be extended to Anuradhapura over Ethernet LAN interface in each station.

17.6 Basic information of present system

Network configuration diagram will be attached, (Annexure 6 -Network Configuration Diagram)

Server	-	CISCO UCSC-C220-M3S
IP Phone for all general communications (IP based EPABX)	-	CISCO Unified IP Phone 7971G
IP Phone for control communications	-	CISCO Unified IP Phone 7931G

18. PUBLIC ADDRESS SYSTEM:

Schematic diagram of the system shall be submitted for the approval before submission of system design.

IRCON/S&T/1800021/12239**List of Spares to be supplied against item No. 38 of BOQ**

SN	Description of item	Unit	Qty
1	Power System		
1.1	Supply of Station IPS	No.	1
1.2	Battery Bank of 120V DC / 150AH (10 Nos of 12V/150AH) along with all accessories.	No.	1
1.3	Supply of IPS for Auto Location	No.	1
1.4	Supply of IPS for LC	No.	1
1.5	Battery Bank of 24V DC/150AH (20 Nos of 1.2V/150AH) along with all accessories.	No.	1
2	Point Machine Complete with Rod set		
2.1	Supply of Electric Point Machines, complete with ground connection Rodding	Set	5
2.2	Insulation Materials for Stretcher Bars & D Brackets	Set	5
2.3	Cable Termination Box (Point JB)	Set	5
3	Supply of Electronics Interlocking spares		
3.1	L-K7C Sub-rack with mother board	Nos	2
3.2	CPU card, F486-4I	Nos	2
3.3	IF card, FSIO2-B	Nos	2
3.4	IF card, FSIO2-B-EX	Nos	2
3.5	I/O card, FIO7-[P]	Nos	2
3.6	I/O card, EXT FIO7-[P]	Nos	2
3.7	I/O card, DID.	Nos	2
3.8	Power card, IPU6C	Nos	2
3.9	E-P5 Subrack with mother board	Nos	2
3.10	E-P5A Subrack with mother board	Nos	2
3.11	IF card, Line2B	Nos	4
3.12	I/O card, PIO3C(PIO2-LOG)	Nos	8
3.13	Optical Branch card, SPHC-TT	Nos	3
3.14	Optical Converter card, FRMC (Nivox)	Nos	3
3.15	Power supply, SPHC-PW	Nos	2
3.16	PINIO card with Driver Software For MTC	Nos	4
4	Interface Relays		
4.1	QNA1 (24 Volt) 12F/8B	Nos	20
4.2	QNA1 (24 Volt) 8F/8B	Nos	20
4.3	ECR QECX61 (24 Volt) 4F/4B	Nos	15
4.4	QBCA1 2HF (24 Volt) 2HF 2F/4B	Nos	15
4.5	QL1 (24 Volt) 8F/6B	Nos	5
4.6	QSPA1 (24 Volt) 8F/4B	Nos	10
5	Signals		
5.1	3 Aspect CLS unit	Nos	5
5.2	2 Aspect CLS unit	Nos	5
5.3	1 Aspect CLS unit	Nos	3
5.4	Offset Bracket for CLS unit	Nos	3
5.5	3.6 meter pole with Ladder and maintenance platform.	Nos	5
5.6	Red LED	Nos	25

IRCON/S&T/1800021/12239

5.7	Green LED	Nos	20
5.8	Yellow LED	Nos	25
5.9	Offset bracket for Dependent Shunt	Nos	3
5.10	Shunt Signal Unit	Nos	3
5.11	Shunt LED	Nos	10
5.12	1.8 meter pole Ladder and maintenance platform Galvanized for Dwarf Signal	Nos	2
5.13	Shunt Signal pole	Nos	2
6	DC Track Circuit		
6.1	Track feed charger 5 Amp	Nos	10
6.2	Track Relay 'QT2' Relay	Nos	20
6.3	Track feed resistance	Nos	10
6.4	Track lead junction Box	Nos	15
6.5	Lighting protection device	Nos	20
6.6	Track Relay QBAT	Nos.	5
7	Cabinets		
7.2	Full Location Box	Nos	5
8	Level Crossing Protection System (Barrier type and B&L Type)		
8.1	KLCR relay	Nos.	10
8.2	Hooter and flasher dual tone unit with Cross Protection	Nos.	8
8.4	Road signal CLS unit 2 Aspect	Nos.	10
8.5	1 Aspect CLS unit flashing train signal	Nos.	10
9	Optical Fibre Cable (24 Fibre OFC) and HDPE Duct for OFC		
9.1	OFC Cable	Km	3
9.2	HDPE Duct	Km	3
10	Copper Cables for Block section and Yard		
10.1	2Cx10sqmm Copper conductor XLPE	Km	1
10.2	12C x 1.5sqmm Sig Cable	Km	5
10.3	19Cx1.5sqmm Sig Cable	Km	3
10.5	10/0.90mm PIJF cable	Km	2
10.6	2Cx25 sqmm Copper conductor XLPE	Km	1
10.7	2Cx2.5 sqmm Sig. Cable	Km	2
11	Control Communication at Stations		
11.1	IP Switch (8 PORT FOR IP PHONE + 2 SFP FOR OFC LINK)	Nos.	2
11.2	IP Phone CISCO UC PHONE 7861 with license	Nos.	7
12	Public Address System		
12.1	Amplifier	Nos	2
12.2	Microphone	Nos	2
12.3	Column Speaker	Nos	4
12.4	Horn Speaker	Nos	4
13	GPS based Clocks		
13.1	Supply of Digital Platform Clock Double face (2 Sided) With GPS Synchronisation)	Nos	1

IRCON/S&T/1800021/12239

SECTION–VIII

CERTIFICATE OF FAMILIARISATION

IRCON/S&T/1800021/12239

CERTIFICATE OF FAMILIARISATION

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

(Signature of Bidder/s)

Date: _____

Place: _____

IRCON/S&T/1800021/12239

SECTION – IX
(DRAWINGS)

IRCON/S&T/1800021/12239**INDEX**

SN	DESCRIPTION	STATION/SECTION
1	SIP- 1	MAHO STATION
2	SIP- 2	AMBANPOLA STATION
3	SIP-3	GALGAMUWA STATION
4	SIP-4	SENARATHGAMA STATION
5	SIP-5	THAMBUTHTHEGAMA STATION
6	SIP-6	TALAWA STATION
7	SIP-7	SRAVASTIPURA STATION
8	Schematic of Automatic block section	TYPICAL AUTOMATIC BLOCK SECTION
9	Schematic of Power Distribution Diagram	TYPICAL POWER DISTRIBUTION DIAGRAM
10	Equipment Room building layout	ALL SEVEN STATIONS
11	Gate Hut building layout	ALL FULL PROTECTED LC GATES

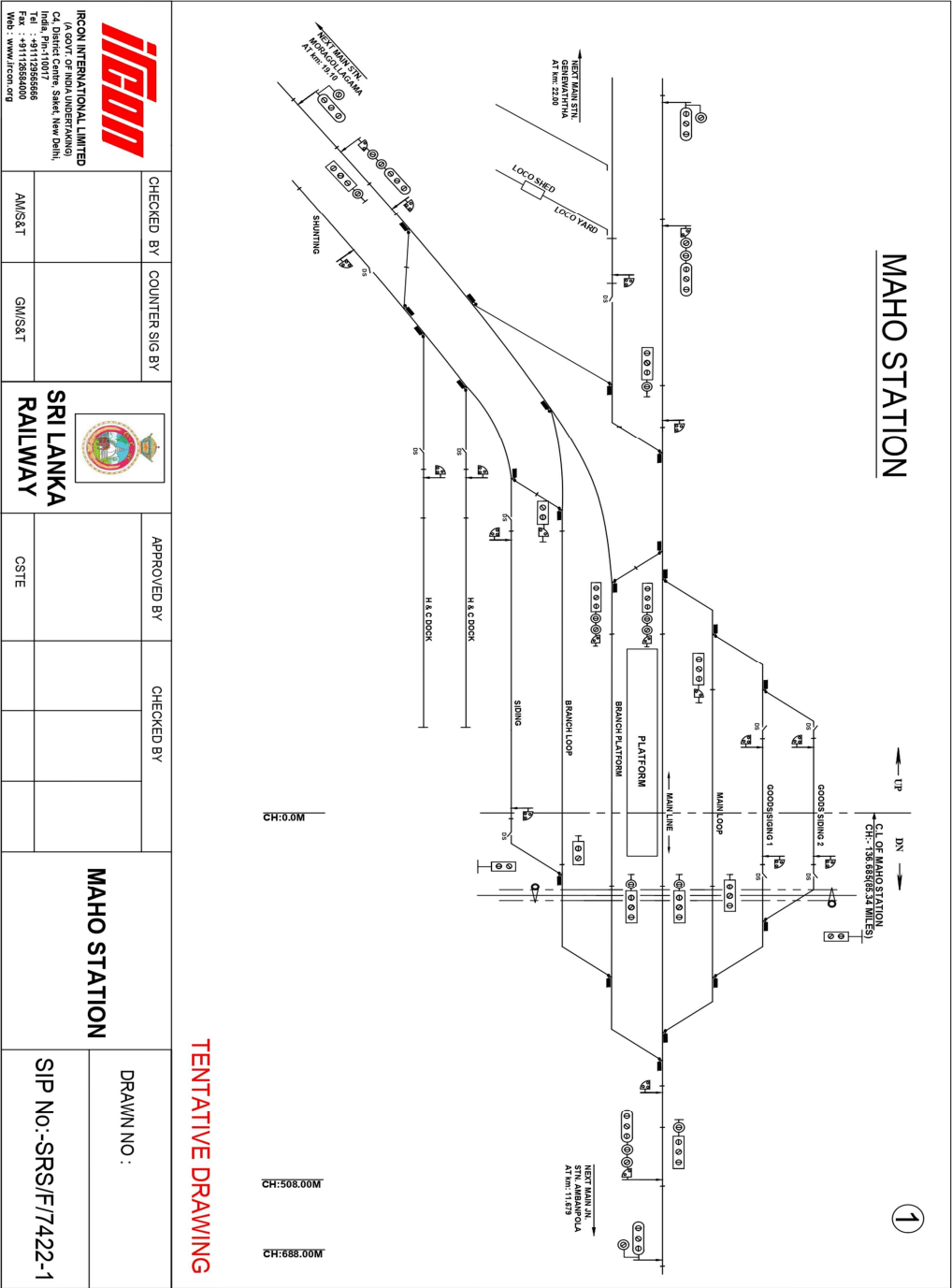
NOTE: ALL THE DRAWINGS ARE TENTATIVE.

IRCON/Sri Lanka Railway reserves the right for alteration as per requirement during execution of works. The contractor shall take approved SIPs before execution of works from IRCON/Sri Lanka railways.

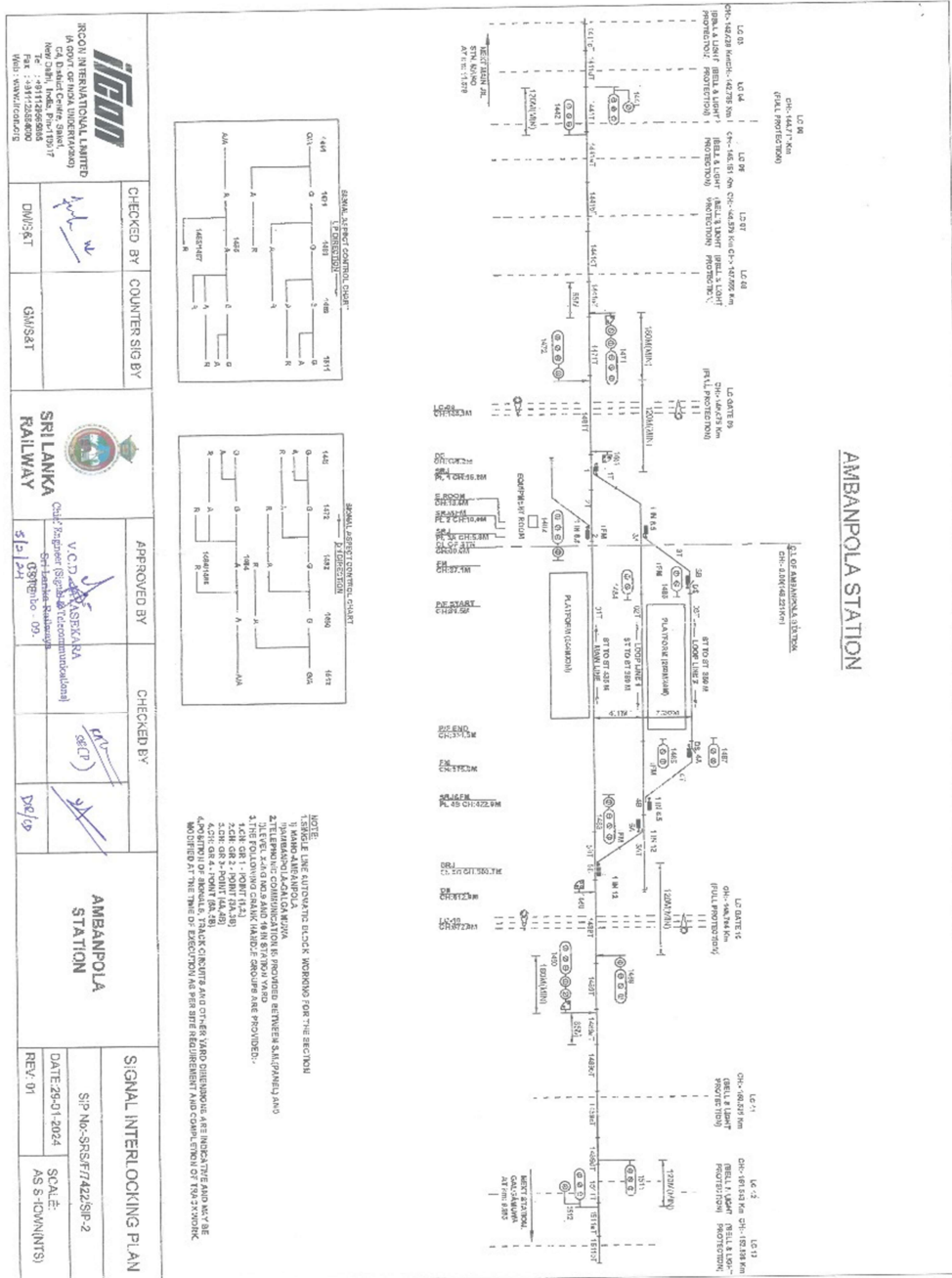
IRCON/S&T/1800021/12239



DRAWING No. 1



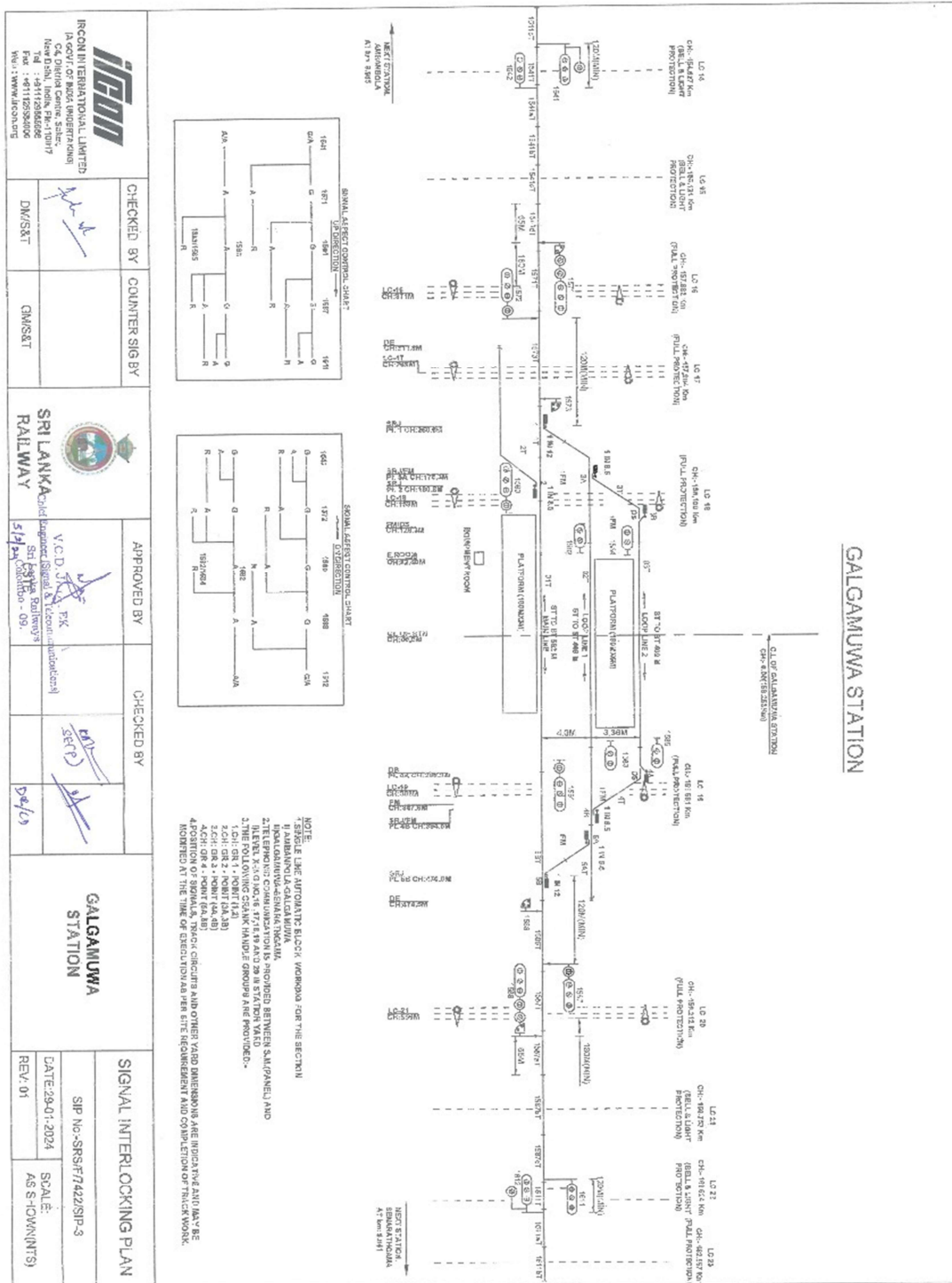
DRAWING No. 2



IRCON/S&T/1800021/12239



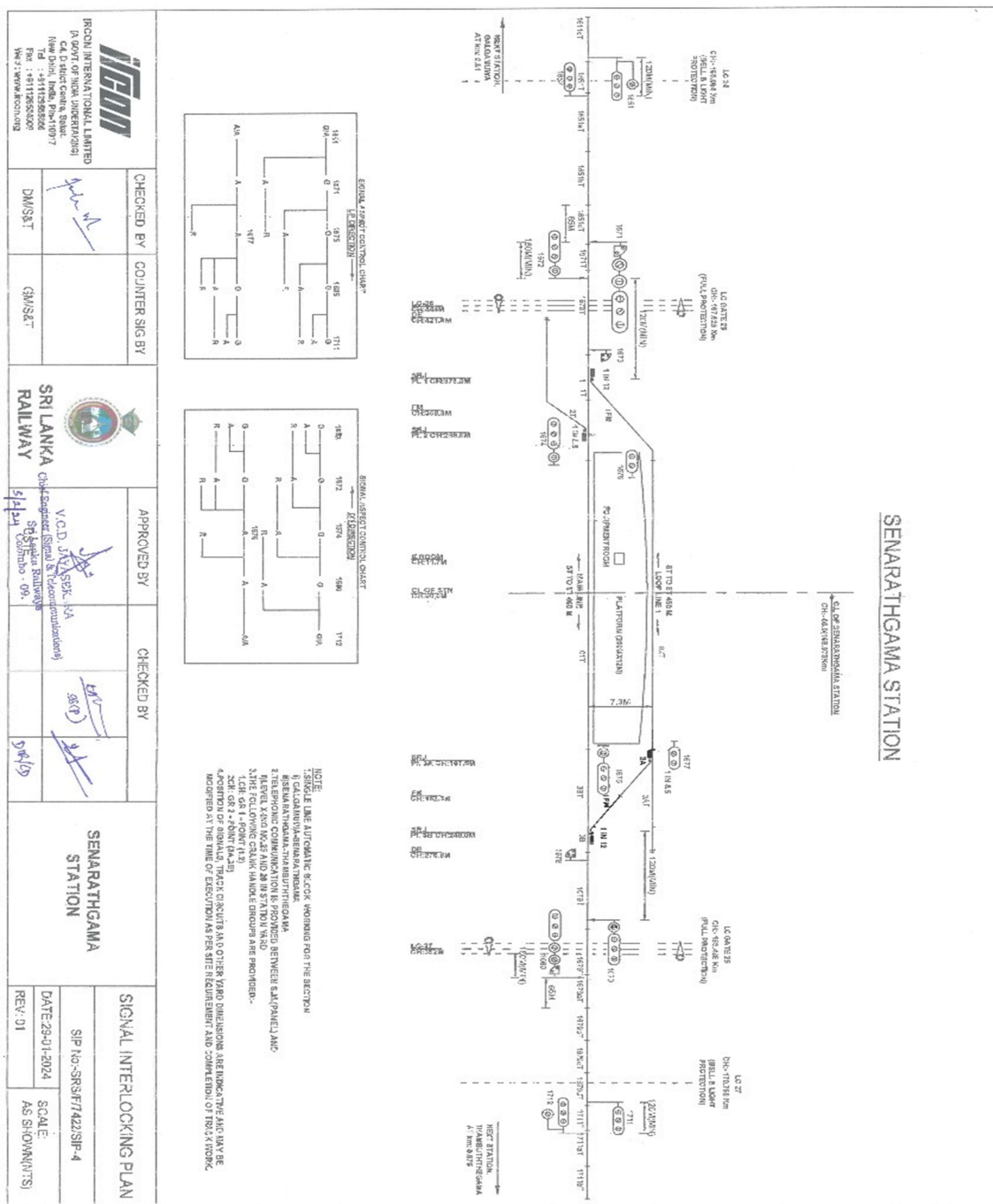
DRAWING No. 3



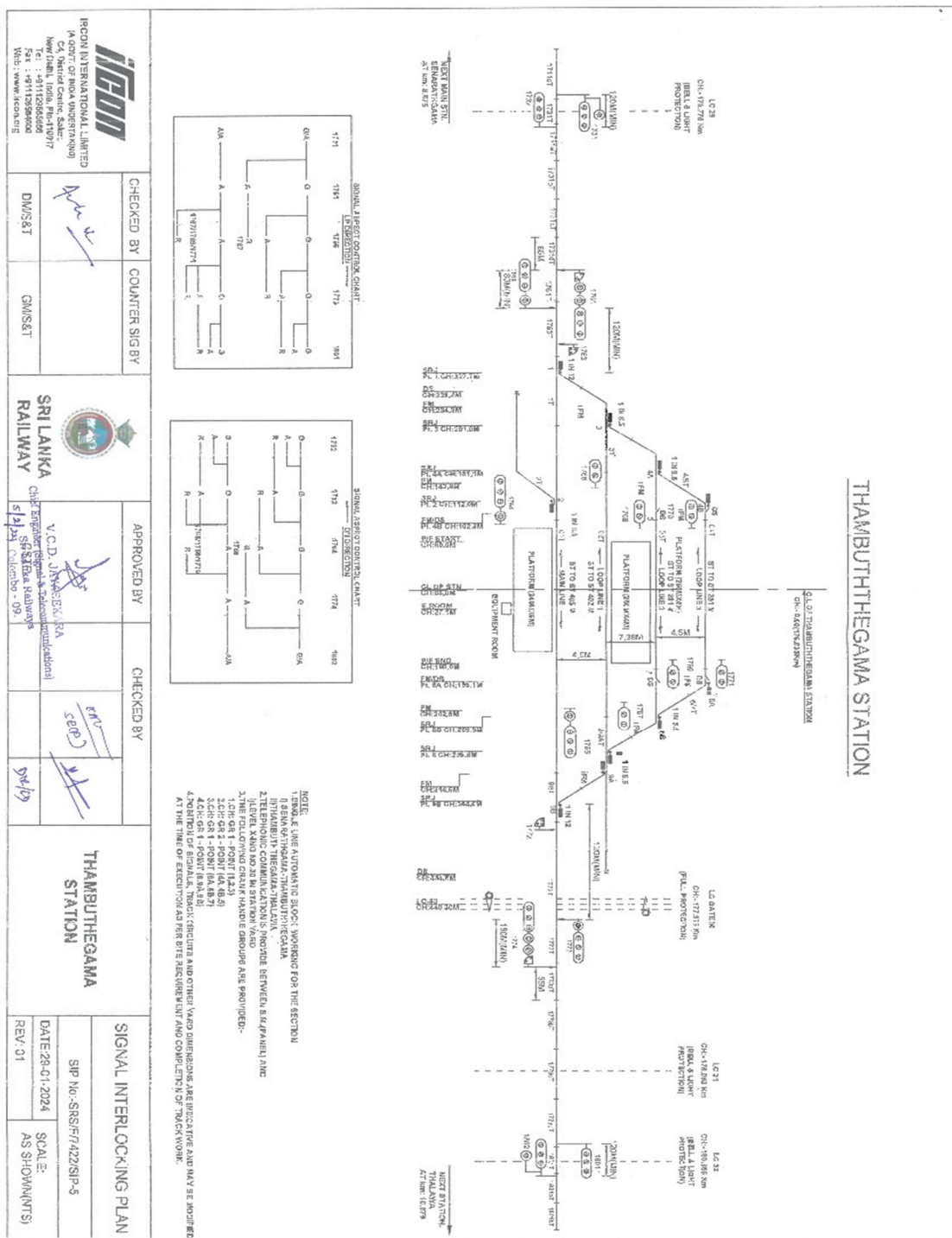
IRCON/S&T/1800021/12239



DRAWING No. 4



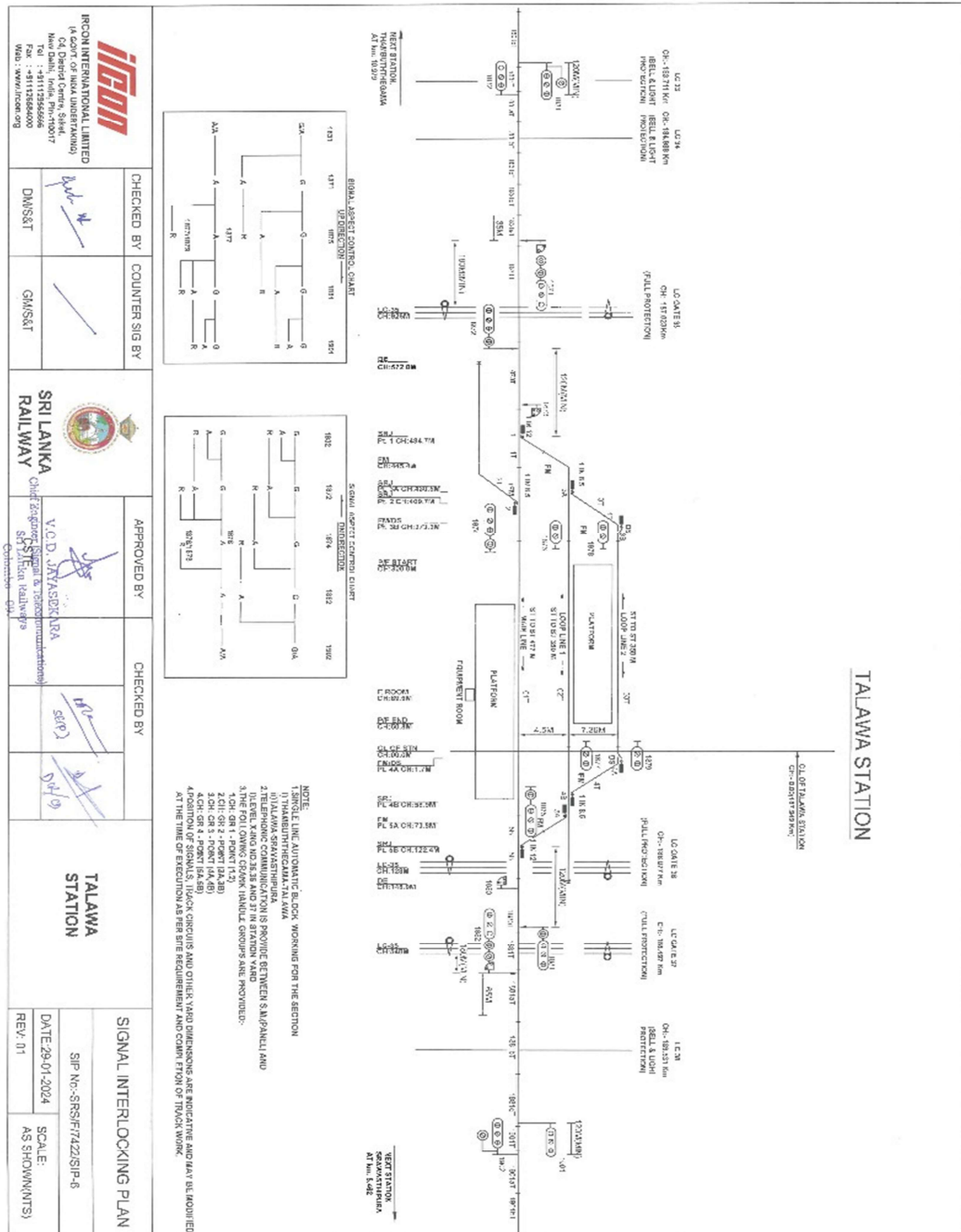
DRAWING No. 5



IRCON/S&T/1800021/12239

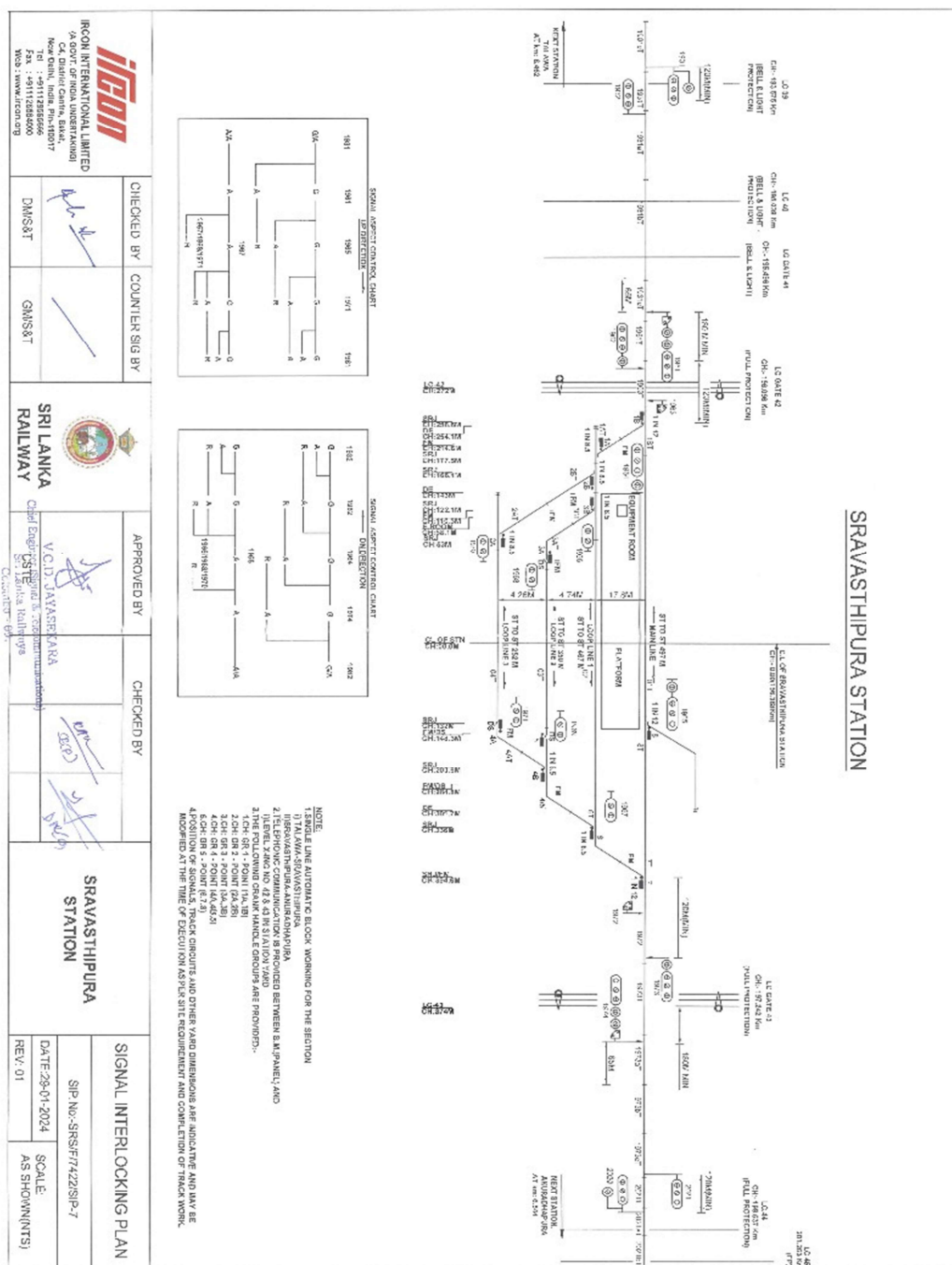


DRAWING No. 6



स्पोर्ट्स

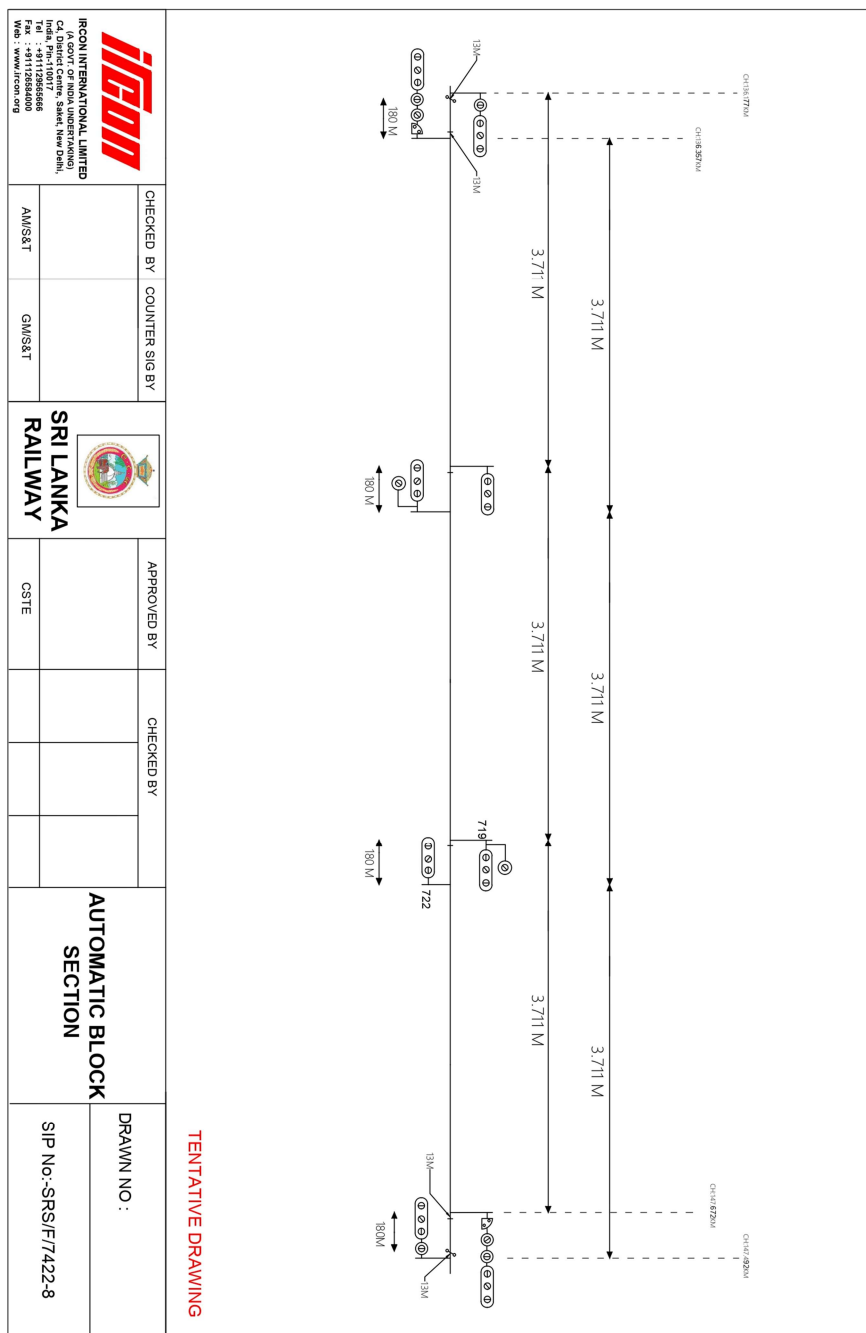
DRAWING No. 7



IRCON/S&T/1800021/12239



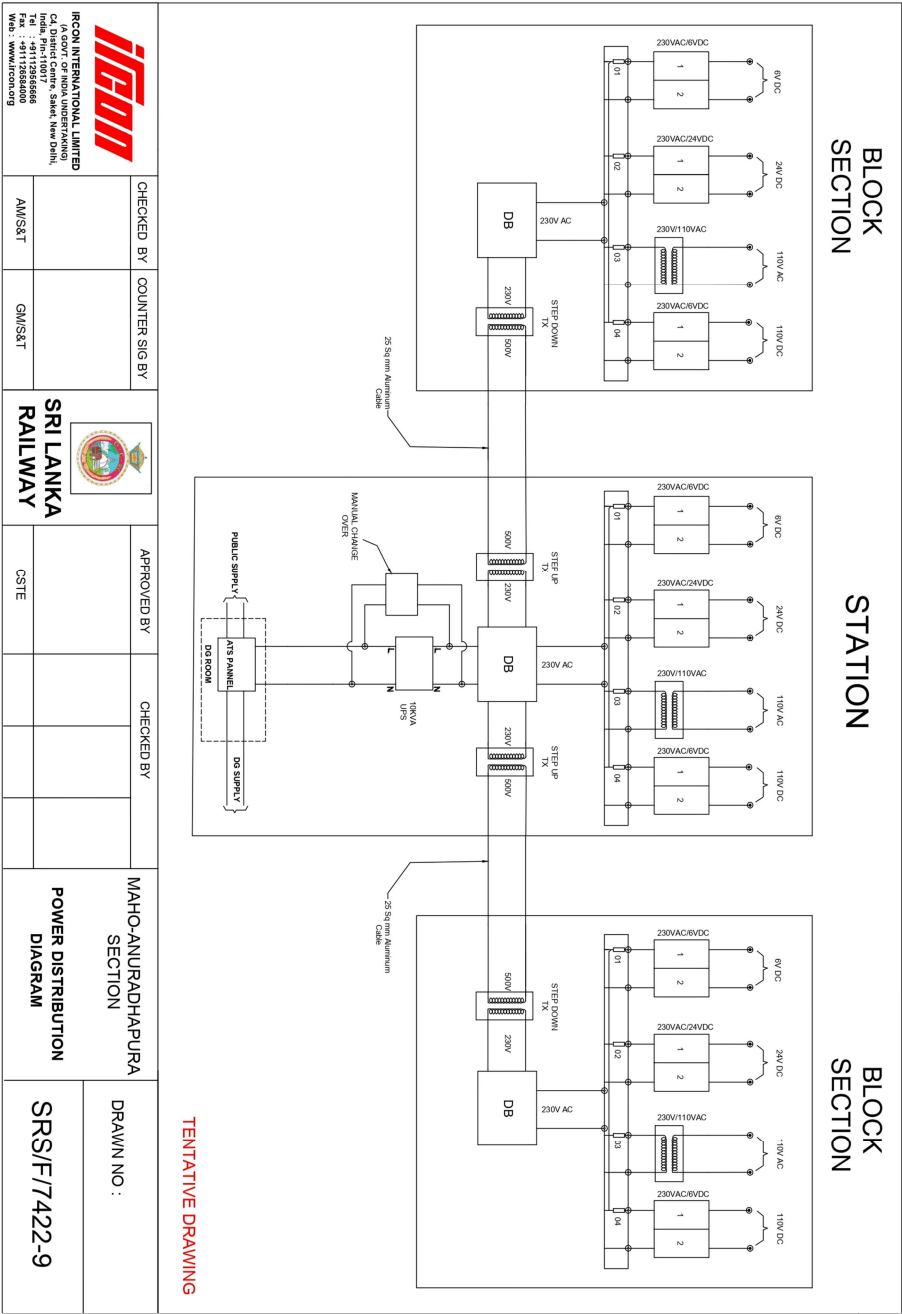
DRAWING No. 8



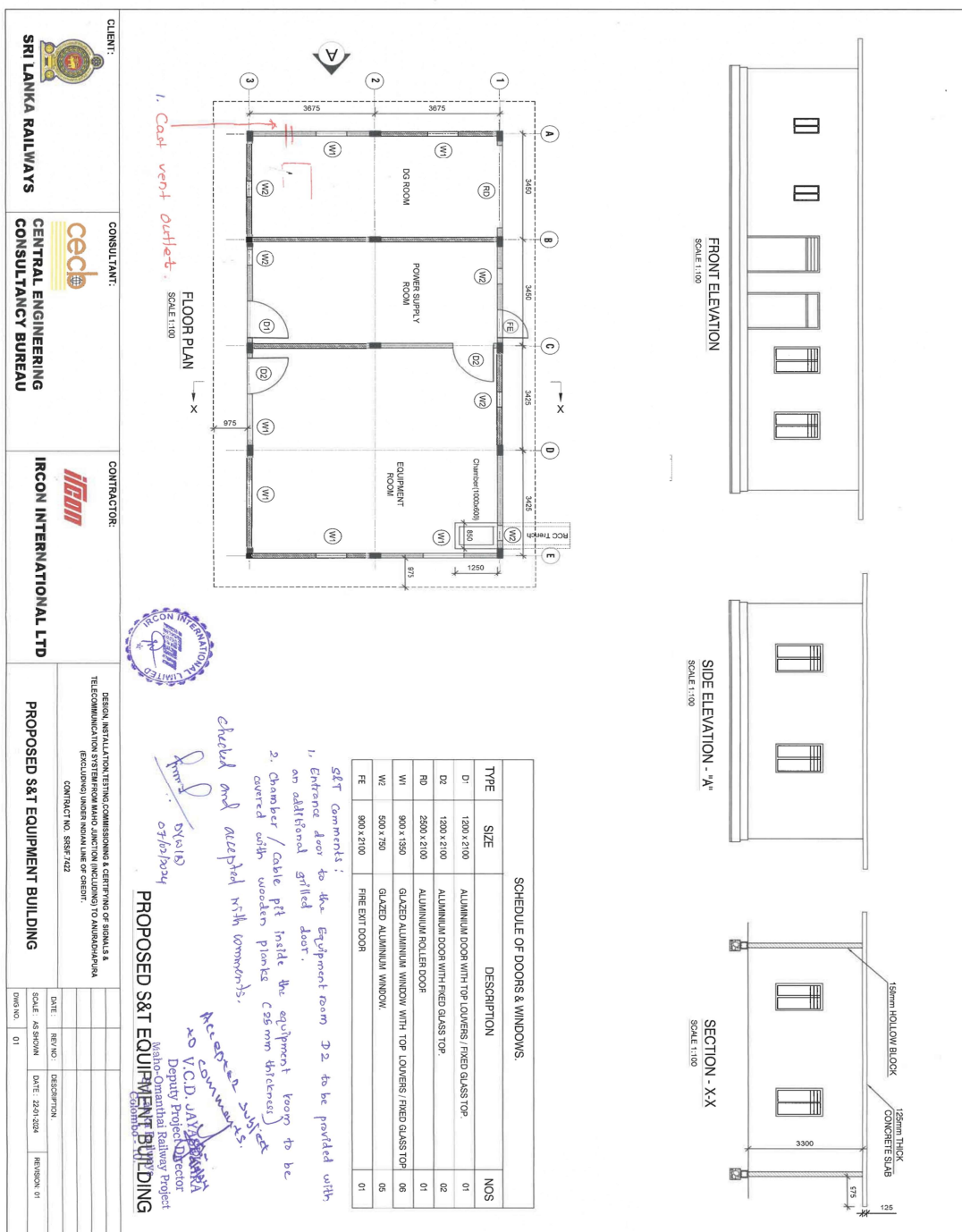
IRCON/S&T/1800021/12239

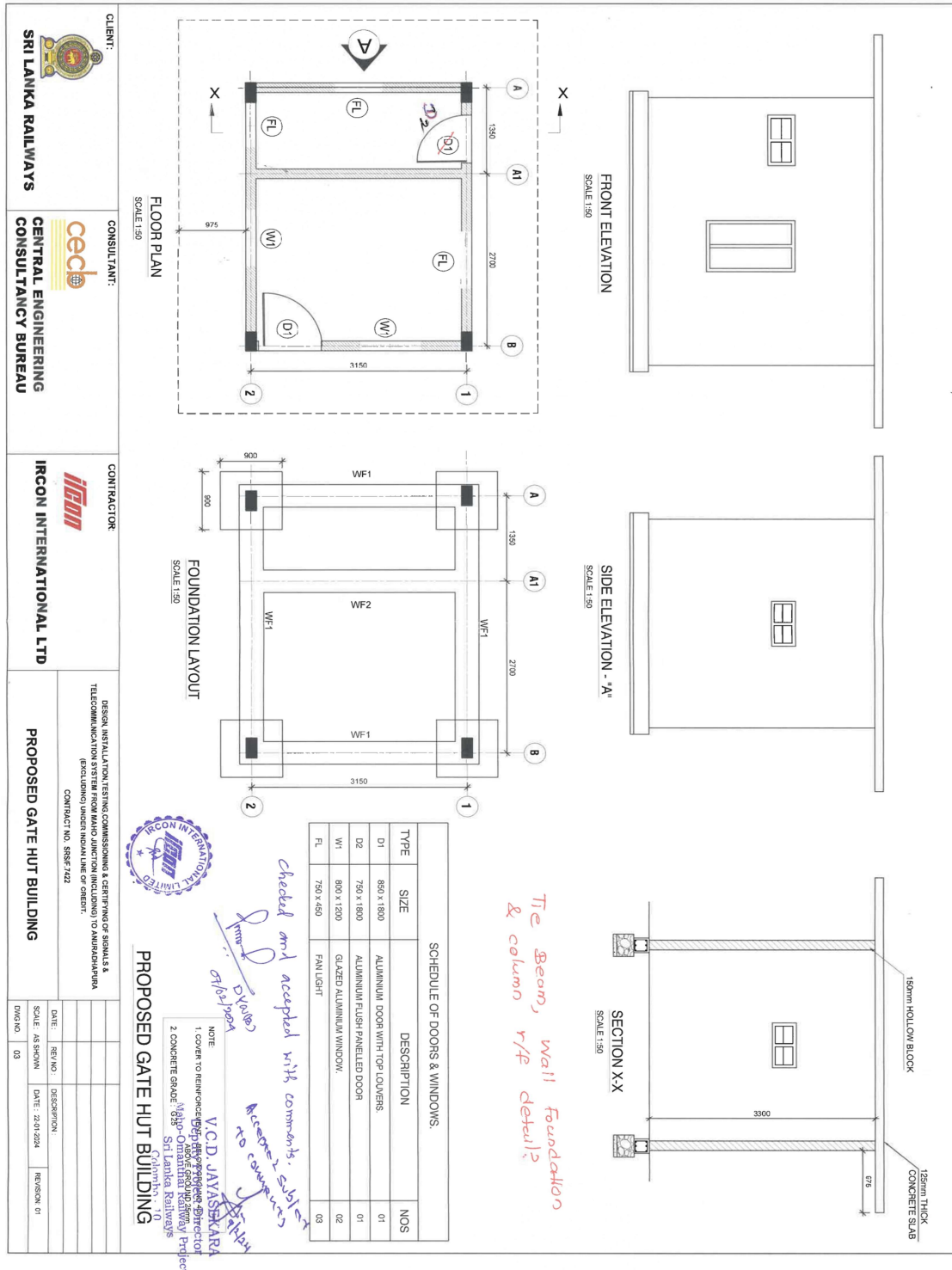


DRAWING No. 9



DRAWING No. 10



IRCON/S&T/1800021/12239**DRAWING No. 11**

IRCON/S&T/1800021/12239

SECTION-X

BILL OF QUANTITY (BOQ)

IRCON/S&T/1800021/12239

Name of work: Design, Supply, Installation, Testing and Commissioning of Electronic Interlocking Based Signaling and Telecommunication System including single line automatic block signaling from Maho to Anuradhapura section of Sri Lanka Railway.

General Notes:

- (i) All Materials, fittings supplied by the contractor shall be new and unused without any defects.
- (ii) All the materials and fittings stated herein shall be the best of their respective kind and shall comply with the requirements of the relevant standards and specifications as per the requirement of Sri Lanka Railway.
- (iii) The contractor shall provide the necessary details to the Engineer regarding the dates and sources of materials procured.
- (iv) **The quantities in the BOQ are estimated quantities only and are not to be taken as actual and correct quantities and shall not considered accurate for the purpose of procurement of materials and quantity of work to be carried. The contractor shall be responsible to procure materials based on design for installation of signaling and telecommunication system which shall be approved by Sri Lanka Railway/Consultant.**
- (v) The final quantities for payment shall be with reference to the quantities as per bills of lading, delivered to site and used for work.
- (vi) The contractor shall provide copies of bills of lading including packing lists for materials procured for verification of material quantities for payment.
- (vii) The rate of all materials shall include the cost of loading from port, transporting, unloading and stacking at site.
- (viii) The contractor shall submit the BOQ of the final design to IRCON. The payment shall be made as per awarded rates for the quantities actually executed at site as per approved final design.
- (ix) The manufacturer's brochures of all major systems/items of the signaling system shall be submitted along with final design.
- (x) The signaling system shall be designed and manufactured to meet the existing maintenance environment and maintenance procedures of SLR.
- (xi) SLR shall not pay any royalty, annual payment etc. for any software/equipment/item/parts supplied under this contract. Contractor shall propose the suitable systems accordingly to meet the requirements.

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
1	<p>Power System for Interlocking and Station Yard including batteries, UPS/Invertor and 15KVA Diesel Generator.</p> <p>It includes cost for Design, supply, installation, Testing and commissioning of power supply system including standby batteries (not less than 140Ah capacity), UPS for EI and wayside, separate modules of functional based (Telecommunication, Track circuits, Signals and point machines, etc ...) regulated power supplies and diesel generator as per the specifications. Installation of batteries shall be so designed that proper ventilation is available and proper separation to the interlocking system.</p> <p>Item includes all housings and accessories. Item includes the surge protection of the system and all equipment shall be properly earthed and connected to an exothermically welded earth electrode which shall be of an earth resistance below 5 ohm.</p>				
a)	Design	System	7	1,000.00	7,000.00
b)	Supply	System	7	30,792.98	2,15,550.86
c)	Execution	System	7	6,367.77	44,574.39
2	<p>Power System for Wayside (Block Post) including Batteries, UPS / Inverter:</p> <p>It includes cost for design, supply, installation, Testing and commissioning of Power supply for wayside (Block post circuits) with distribution capacity to next Block post/ER on either side. All level crossing signalling systems shall be switched to this UPS supply in case of main power failure. Item includes all housings and accessories. System shall be provided with back</p>				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	up batteries and Installation of batteries shall be so designed that proper ventilation is available and proper separation to the Block system. Item includes the surge protection of the system and all equipment shall be properly earthed and connected to an exothermically welded earth electrode which shall be of an earth resistance below 5 ohm.				
a)	Design	System	7	500.00	3,500.00
b)	Supply	System	7	7,226.92	50,588.44
c)	Execution	System	7	1,545.53	10,818.71
3	Point Machine Complete: It includes cost for supply, installation, Testing and commissioning of the complete point machine as per the specifications. Item includes the point rods , iron plates for sleepers, crank handle, locking arrangement with a master key arrangement and cable termination boxes. Point machine, Rod sets and iron plates shall be painted with anticorrosive painting arrangement approved by the engineer to avoid corrosion. Points machines supplied under this item shall comply with the Mechanical and Electrical parameters required by the points and crossings supplied under the tracks contract and the safety requirement of same. Item includes all housings and accessories and the surge protection of the system.				
a)	Supply	Set	75	2,194.99	1,64,624.25
b)	Execution	Set	75	428.68	32,151.00

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
4	Electronic Interlocking System including terminations for way side and rack / cabinet assembly: It includes cost for design, supply, installation, Testing and commissioning of Electronic Interlocking system as per the given Specifications. This includes all the electronic and power supply modules required for successful commissioning of the system. Wire counting test and buzzer test shall be performed before handing over to the employer/engineer for testing and records shall be produced. Surge protection to the entire system (Electronic interlocking, interfacing relay system and power supply systems) shall be provided and equipment room earth connection shall be exothermically connected to the outside earth electrode and earth resistance shall be less than one ohm. Item includes all housings and accessories. Items includes a Data logger and the data logger shall be able to retrieve data for investigation and maintenance purposes. Contractor shall follow the existing system in the Northern line beyond Anuradhapura and same features to be provided.				
a)	Design	System	7	10,000.00	70,000.00
b)	Supply	System	7	2,15,577.40	15,09,041.80
c)	Execution	System	7	20,077.52	1,40,542.64
5	Interface Relays required for EI including terminations and rack / cabinet assembly. It includes cost for supply, installation, Testing and commissioning of Safety relays required for interfacing the wayside signal gears to the EI and to satisfy the other design requirements of the proposed system. Relays shall comply with Railway safety standards. All Q type relays shall				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	undergo flasing at required level before using in circuits. Item includes all housings and accessories.				
a)	Supply	System	7	36,205.19	2,53,436.33
b)	Execution	System	7	7,813.66	54,695.62
6	<p>LED 3 Aspect + side unit high signal unit complete (with pole, ladder and brackets, hereafter mentioned as (Complete):</p> <p>It includes cost for supply, installation, Testing and commissioning of LED signal units complete with LED module , Light checking relay (as necessary by the design), Lockable Enclosure , Signal pole, maintenance platform/support, ladder and all fixing brackets required by the design configurations. All signal units shall be equipped with necessary lightning protection devices. Enclosures, ladders, post and brackets shall be painted with anticorrosive painting arrangement approved by the engineer to avoid corrosion. Different aspects and configuration shall be decided at the design stage. Signals shall be erected on a concrete base which shall be higher than the rail level. Nuts and bolts used for mounting shall be properly galvanized. Item includes all housings and accessories. Item includes the surge protection of the system and all equipments shall be properly earthed and connected to an exothermically welded earth electrode which shall be of an earth resistance below 5 ohm.</p>				
a)	Supply	Nos	14	3,732.64	52,256.96
b)	Execution	Set	14	598.57	8,379.98

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
7	LED 3 Aspect + 1 Aspect high signal unit complete (Main Line Starter Signal): It includes same as item no 6,				
a)	Supply	Nos	29	3,731.20	1,08,204.80
b)	Execution	Set	29	519.00	15,051.00
8	LED 3 Aspect + 1 Aspect + 1 Aspect High signal unit complete (Home Signal): It includes same as item no 6.				
a)	Supply	Nos	17	6,077.45	1,03,316.65
b)	Execution	Set	17	531.18	9,030.06
9	LED 2 Aspect + 1 Aspect High signal unit complete (Adv. Str. Signal at Maho): It includes same as item no 6.				
a)	Supply	Nos	2	3,418.66	6,837.32
b)	Execution	Set	2	519.00	1,038.00
10	LED 3 Aspect Dwarf signal complete (Loop Line Str. Signal): It includes same as item no 6.				
a)	Supply	Nos	4	2,157.00	8,628.00
b)	Execution	Set	4	519.00	2,076.00
11	LED 2 Aspect Dwarf signal complete (Loop Line Str. Signal): It includes same as item no 6.				
a)	Supply	Nos	29	1,822.95	52,865.55
b)	Execution	Set	29	519.00	15,051.00
12	LED 3 Aspect High Signal complete (Block Signal): It includes same as item no 6 includes.				
a)	Supply	Nos	14	2,359.15	33,028.10
b)	Execution	Set	14	519.00	7,266.00
13	LED Shunt Signal Complete: It includes as included in item no 6.				
a)	Supply	Nos	56	1,208.61	67,682.16
b)	Execution	Set	56	183.52	10,277.12

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
14	LED 5 Aspect Signal unit complete (Gate & Warner Signal): It includes same as included in item no 6.				
a)	Supply	Nos	24	3,784.25	90,822.00
b)	Execution	Set	24	616.49	14,795.76
15	DC Track Circuit Complete With Backup Power): Item shall include cost for design, supply, installation, Testing and commissioning of DC track circuits, including track bonding backed up power supply (may be by batteries as per design and agreed by the employer), Track terminal boxes, lightning protection, and track leads of at least 10mm ² insulated copper cables. Track circuits shall avoid parallel paths as much as possible and design need to be approved by the engineer on consultation of employer. Track circuit provided under this contract shall be a proven and fail safe one designed as per passenger railway practices. Insulated track joints (Glued joints) required for the project will be provided by the track rehabilitation project. Item includes all housings and accessories. Item includes the surge protection of the system and all equipments shall be properly earthed and connected to an exothermically welded earth electrode which shall be of an earth resistance below 5 ohm.				
a)	Supply	Nos.	119	541.94	64,490.86
b)	Execution	Nos.	119	672.40	80,015.60
16	Block instrument	NIL			

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
17	<p>Automatic Block System for 7 block sections section between Anuradhapura and Maho.</p> <p>Item shall include cost for supply, installation, Testing and commissioning of system along with vital communication for block circuit over the optical fiber cable. Item includes all housings and accessories. Item includes the surge protection of the system.</p> <p>This item also includes design, and modification work at Anuradhapura stations including supply of material is required in connection with Automatic block working between Anuradhapura and Srawasthipura section.</p>				
a)	Supply	System	7	3,253.06	22,771.42
b)	Execution	System	7	916.13	6,412.91
18	<p>Cabinets (Outdoor):</p> <p>The rate of this item shall include cost for Design, Supply, Installation, wiring, testing of equipment cabinets required for housing wayside equipment and circuits. Cabinets shall be at IP 54 level protection and shall be supplied with a locking mechanism with master key arrangement. Cabinets shall be weather proof and corrosion free and have necessary protection against corrosion. Item includes painting of the cabinet with primer and a marine grade anticorrosive paint, Cabinets shall be erected on a concrete base which shall be higher than the rail level. Nuts and bolts used for mounting shall be properly galvanized.</p> <p>Item includes all housings and accessories. Item includes the surge protection of the equipments inside and all equipment shall be properly earthed and connected to an exothermically welded earth electrode which shall be of an earth</p>				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	resistance less than 5 ohm.				
a)	Supply	Nos	80	1,197.14	95,771.20
b)	Execution	Nos	80	1,111.83	88,946.40
19	Equipment room for station	Nos	0		
20	Equipment room for Block post	Nos	0		
21	Equipment room for gate keeper	Nos	0		
22	Signal Base for High Signals The rate of this item shall include cost for Providing signal bases for high, dwarf and shunt signals. Reinforced concrete bases shall be provided and design and reinforcement details to be approved by the engineer. Provision for cable intake shall be available and indicated in the design. Painting scheme of the different type of bases will be given by the employer at design stage.	Nos.	78	516.13	40,258.14
23	Signal Base for Dwarf and fixing signals The rate of this item shall include cost for Providing signal bases for high, dwarf and shunt signals. Reinforced concrete bases shall be provided and design and reinforcement details to be approved by the engineer. Provision for cable intake shall be available and indicated in the design. Painting scheme of the different type of bases will be given by the employer at design stage.	Nos.	57	516.13	29,419.41
24	Signal Base for Shunt Signals The rate of this item shall include cost for Providing signal bases for high, dwarf and shunt signals. Reinforced concrete bases shall be provided and design and reinforcement details to be approved by the engineer.	Nos.	56	173.48	9,714.88

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	Provision for cable intake shall be available and indicated in the design. Painting scheme of the different type of bases will be given by the employer at design stage.				
25	Local Operating Panel (Station): This item shall include cost for supply Installation testing of following: <ul style="list-style-type: none"> • 2 nos., 55 inch industrial grade VDU per station. • VDU table and chair. • 2 nos, 24VDC to 110 Volt AC inverter as per RDSO TAN per station. 				
a)	Supply	stations	7	14,636.62	1,02,456.34
b)	Execution	stations	7	2,706.11	18,942.77
26	Level Crossing Protection System (Barrier type) Complete, Complete with controller, backed up power, train detection, barrier system, train signals (gate and warner signal) and warning signals (bell and flashing lights) to road. Item shall include cost for design, supply, installation, Testing and commissioning of Barrier type level crossing protection systems as per the given Specifications. This includes all the electronic and power supply modules required for successful commissioning of the system. Contractor shall test the system before handing over and certify with the test records. Surge protection to the entire system shall be provided and equipment room/cabinet earth connection shall be exothermically connected to the outside earth electrode and earth resistance shall be less than 3 ohm. Supply includes Controller, Barrier mechanisms, train detection systems, two posts of bells and flashing red lights with andria cross				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	for road users and gate signals (X and W) for train drivers in both directions. Contractor shall provide a system presently in use in Sri Lanka Railways and submit the designs for approval. Designs includes controller circuits, train detection system circuits, power supply system circuits, road and train driver signals, Bell and light assembly, Barrier assembly and brochures of system. Schematic diagram of the system shall be submitted for the approval before submission of the system designs. Item includes all housings and accessories				
a)	Supply	System	20	22,033.08	4,40,661.60
b)	Execution	System	20	2,601.45	52,029.00
27	<p>Level Crossing Protection System (Bell and Light type) Complete, Complete with controller, backed up power, train detection, train signals (Flashing white) and warning signals (bell and flashing lights) to road.</p> <p>This includes cost of supply, installation, testing and commissioning of bell and light type level crossing protection system as per given specifications. This includes all the electronic and power supply modules required for successful commissioning of the system.</p> <p>Supply includes controller, train detection systems, two posts of bell and flashing red lights with andria cross for road users and white flashing signals for train drivers in both directions. Contractor shall provide a system presently use in Sri Lanka Railways and submit the design for approval. Design includes controller circuits, tarin detection system circuits, power supply system circuits, road and</p>				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	train driver signals, bell and light assembly, and brochures of the system. Surge protection to the entire system shall be provided and equipment room/cabinet earth connection shall be exothermically connected to the outside earth electrode and earth resistance shall be less than 3 ohm. Schematic diagram of the system shall be submitted for the approval before submission of the system designs. Item includes all housings and accessories.				
a)	Supply	System	24	15,904.73	3,81,713.52
b)	Execution	System	24	2,346.96	56,327.04
28	Optical Fibre Cables (24 Fibre OFC) including termination equipment for 8 stations: This item shall include cost for supply and drawing of cables through the duct line provided by the tracks contract based on following specifications. Cables shall be of suitable types and construction as per the design and given specifications. Item includes cable terminations, joints, enclosures for joints and labelling of cables. Sheath of the cables to be properly earthed as per the approved design. Cable layout plan shall be submitted for the approval before laying of the cables.				
a)	Supply	Km	64	1,350.54	86,434.56
b)	Execution	Km	64	423.66	27,114.24
29	Supply of HDPE duct 40/33 mm and accessories including coupler, end cap etc. as per RDSO spec. No. RDSO/SPN/45/2012 Rev. 2.0 including latest amendment.				
a)	Supply	Km	64	1,385.67	88,682.88
b)	Execution	Km	64	154.12	9,863.68
30	Power Cables for Yard : 2 core, 10 sq mm, copper conductor XLPE insulated armoured as per IS7098 Part 1.				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
a)	Supply	Km	18	4,746.97	85,445.46
b)	Execution	Km	18	2,144.10	38,593.80
31	Copper Cables for Block section: <ul style="list-style-type: none"> Number of cores shall be decided after approval of core plan. Signalling cables shall be as per latest RDSO specification. Track lead cable shall be 2*2.5 sq mm copper conductor as per Latest RDSO specifications. Power cable shall be 2 core, 25 sq mm, copper conductor XLPE insulated armoured shall be as per IS7098 Part 1 				
a)	Supply	LOT	1	17,00,090.36	17,00,090.36
b)	Execution	LOT	1	93,019.79	93,019.79
32	Copper Cable of different sizes for stations: <ul style="list-style-type: none"> Number of cores shall be decided after approval of core plan. Signalling cables shall be as per latest RDSO specification. Track lead cable shall be 2*2.5 sq mm copper conductor as per Latest RDSO specifications Power cable shall be 2 core, 25 sq mm, copper conductor XLPE insulated armoured shall be as per IS7098 Part 1 				
a)	Supply	Lot	1	4,29,441.43	4,29,441.43
b)	Execution	Lot	1	1,11,731.70	1,11,731.70
33	Cable Route Markers as per SLR practice.				
a)	Supply	Lot	1	55,032.51	55,032.51
b)	Execution	Lot	1	16,634.48	16,634.48
34	Control Communication at Stations Item shall include cost for supply, installation, testing and commissioning of control communication as per the				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	specifications. Contractor shall follow the existing communication system provided in the Northern section beyond Anuradhapura and new system to be connected to the said system at Anuradhapura. Rate includes providing the number of telephones providing as per the Schedule of requirements and includes all wiring, termination, lightning protection of same. Contractor shall provide the same connectivity as per the existing system in Northern line beyond Anuradhapura. Schematic diagram of the system shall be submitted for the approval before submission of the system designs. Item includes all housings and accessories.				
a)	Supply	Nos.	7	5,610.06	39,270.42
b)	Execution	Nos.	7	1,155.56	8,088.92
35	Public Address System: Item shall include cost for supply, installation, testing and commissioning of public addressing system as per the specifications mentioned in tender document. Contractor shall follow the existing system provided in the Northern section beyond Anuradhapura and submit a proposal for the new stations. Rate includes all wiring, termination, lightning protection of the system. Contractor shall provide the same features as per the existing system in Northern line beyond Anuradhapura. Number of speakers and other components shall be same for all stations. Schematic diagram of the system shall be submitted for the approval before submission of the system designs. Item includes all housings and accessories.				
a)	Supply	Nos.	7	3,334.78	23,343.46
b)	Execution	Nos.	7	2,278.15	15,947.05
36	GPS based Clocks: Item shall include cost for supply,				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	installation, testing and commissioning of GPS based clock system as per the specifications. Contractor shall follow the existing system provided in the Northern section beyond Anuradhapura and submit a proposal for the new stations. Rate includes all wiring, termination, lightning protection of the system. Contractor shall provide the same features as per the existing system in Northern line beyond Anuradhapura station. Number of Clocks and other components shall be same for all stations. Item includes all housings and accessories.				
a)	Supply	Nos.	14	2,547.68	35,667.52
b)	Execution	Nos.	14	435.13	6,091.82
37	Training and Technology transfer (Signal & Tele). It should be as per para 13 of Technical specifications.	Lot.	1	67,641.18	67,641.18
38	Spare Parts. It should be supplied as per para 14 of Technical specifications.	Lot.	1	3,71,069.11	3,71,069.11
39	Warranty for 36 months after expiry of DLP period of 12 months. The system shall be guaranteed against workmanship, design and installation and manufacturing defects for the period of thirty six(36) months after the completion of defect liability period. Any defective material, equipment reported within warranty shall be replaced for no cost to the purchaser.	Lot	1	5,06,596	5,06,596
40	Maintenance Vehicle		0		
41	Video Wall at CTC centre: Item shall include cost for supply, installation, testing and commissioning of Video Wall for CTC centre as per the specifications. Rate includes all wiring, termination, lightning protection of the system. Number of screens will be two of minimum 47				

IRCON/S&T/1800021/12239

Item No.	Description of Item	Unit	BOQ Qty	Rate in USD	Amount in USD
	inch. System shall be provided with back up power_ Schematic diagram of the system shall be submitted for the approval before submission of the system designs. item includes all housings and accessories.				
a)	Supply	Lot.	1	19,830.20	19,830.20
b)	Execution	Lot.	1	12,485.36	12,485.36
Total Amount (USD)					85,01,177.52

IRCON/S&T/1800021/12239

SECTION – XI
FINANCIAL e BID

(UPLOADED IN EXCEL SHEET) (RATES AS
PERCENTAGE BELOW/ABOVE/AT PAR THE
SCHEDULE/BOQ RATE ARE TO BE FILLED
ONLINE ONLY)

IRCON/S&T/1800021/12239

GUIDELINES / INSTRUCTIONS FOR QUOTING OF RATES

1. The BOQ consisting of listed out the quantities of various items to be executed under the scope of the tender. The Tenderer **should not quote** for individual items. Tenderer is advised to quote % above or below or at par **on single percentage basis for total cost of schedule**. The Tenderer(s) should quote in % figures only up to two decimal points, software will convert automatically in words.
2. percentage in figure up to 2 decimals. Please note that for "At PAR" cost bidder have to enter 0% with Excess (+) option
3. Along with percentage the tenderer should quote either "above" or "below" or "at par" failing which the percentage quoted shall be considered as percentage below of the total cost as per BOQ.
4. Bidders shall be deemed to have read the Specifications & the other sections of the Bidding Documents and this section to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices. **The rates and prices shall be deemed to include for the full scope as aforesaid, including all taxes, overheads, profit and any other costs to fully complete the works.**
5. The Bill of Quantities shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract, General Conditions, Special Conditions of Contract, Works Requirement (Technical Specifications, and Drawings) and other documents forming part of the bid documents.
6. Sample Format for quoting rates **online** is as under, **not to be filled & submitted offline:**

	Estimated Cost (In USD)	"Above" or "Below" or "At Par"	% in Figures	Total Quoted Cost (in USD)
Total				

IRCON/S&T/1800021/12239

Name of Work: Design, Supply, Installation, Testing and Commissioning of Electronic Interlocking Based Signaling and Telecommunication System including automatic block signaling from Maho to Anuradhapura section of Sri Lanka Railway.

**ANNEXURE IV(AA)
PROFORMA FOR STATEMENT OF MINOR DEVIATIONS
(Refer Clause 6. and 7. of ITT)**

Name of tenderer/firm:

The following are the particulars of minor deviations from the requirements of the Tender Document:

SN	Clause	Deviations	Price adjustment for each deviation/s

Note:

1. The Tenderer shall indicate price adjustment against each deviation in Annexure IV(AA) of BOQ. This price is the price which the tenderer shall reduce from this tender price if deviation(s) is/are accepted by the Employer.
2. Where there is no deviation, please indicate 'No Deviations'. In case, Performa of deviations is left as blank, it will be construed that the tenderer has not proposed any deviations from tender documents.
3. If the tenderer proposes deviations in tender documents, and/or any other terms and conditions of the tender, other than in this Annexure, it will have no effect.
4. All deviations have been listed and priced in the financial proposal and deviations not priced will be treated as null and void and stand withdrawn.