



Tender No. DDU-EN-SSM-RFO-Track-371

For

Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail FlyOver (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC

**E-TENDER DOCUMENT
TECHNICAL BID PACKET-A
December -2022**

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)**

**Under
MINISTRY OF RAILWAYS**

CGM OFFICE

Chief General Manager, DFCCIL

Manas Nagar Railway Colony,
Pt. Deen Dayal Upadhyay Nagar (Mughalsarai)
Chandauli -232101, Uttar Pradesh, India

CORPORATE OFFICE

DFCCIL, 5TH Floor, Supreme Court Metro Station Building,
New Delhi-110001

INDEX

PART/ CHAPTERS	DESCRIPTION	PAGE NO.
PART – I		
Chapter I	Notice Inviting E-Tender	02 - 07
Chapter II	General Information / Data sheet	08 - 10
Chapter III	Preamble & General Instructions to Tenderers	11 - 32
Chapter IV	General Conditions of Contract (GCC)	33
Chapter V	Special Conditions of Contract (SCC)	34-47
PART - II	Technical Specifications	48 – 49
Chapter I	General Guidelines regarding Specifications and Special Conditions for Track Works	50 – 56
Chapter II	General Guidelines regarding Specifications and Special Conditions for Design of track	57 – 70
Chapter III	General Guidelines for Prestressed Concrete sleepers	71 – 73
Chapter IV	General Guidelines for construction of Track	74 – 79
Chapter V	General Guidelines regarding Testing & Commissioning of Track	80 – 83
Chapter VI	General Guidelines regarding Design and construction Interfaces	84 – 87
PART - III	Additional Technical Specifications	88
Chapter I	Precautions while working in close proximity of existing Indian Railways Track	89 – 92
Chapter II	Codes & Specifications to be followed	93 -94
Chapter III	Priority of Documents	95
Chapter IV	Site Facilities	96 – 99
PART - IV		
Chapter I	Milestones and Time Schedule	100 – 103
Chapter II	Tender Forms (including Schedule of Prices)	104 – 153
PART - V	Drawings	153 -155

NOTICE INVITING E-TENDER

PART - I**Chapter I**

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)**

No: DDU-EN-SSM-RFO-Track-371-2022**DATE: 13.12.2022**

**NOTICE INVITING E-TENDER
National Competitive Bidding**

Dear Sirs,

Name of Work: Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail Fly Over (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC

- 1.1.1 General Manager/Coordination/DDU, DFCCIL,** Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai), Chandauli -232101, Uttar Pradesh, India, invites e-tenders on **two packet system** on prescribed forms from firms / Companies / Joint Ventures having requisite experience and financial capacity for execution of the following work:

Tender Notice No.	DDU-EN-SSM-RFO-Track-371
Name of the work	Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail FlyOver (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC
Employer	Chief General Manager/DDU, DFCCIL, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai) Chandauli -232101, Uttar Pradesh, India Acting through: S K Jha Mobile: +917521802002 Email: skjha@dfcc.co.in
Engineer	Employer/Employer's authorized Representative
Type of Tender	Open E-Tender (<u>Single stage Two Packet</u>)
Type of Contract	Works Contracts
Estimated Cost	Rs. 7,62,43,324.00/- (Rupees Seven Crore Sixty Two Lakhs Forty Three Thousand Three Hundred Twenty Four Only).
Period of Completion	12 months
Cost of Tender Document	<u>Rs. 11,800/- (Inclusive of GST)</u> The cost of the tender document shall be deposited through e-payment mode at www.ireps.gov.in in DFCCIL's Bank Account through Net Banking or payment gateway

	on or before the scheduled date and time of submission of tender. The Proof of submission of cost of tender document should be uploaded alongwith the technical bid.
Earnest Money	<u>Rs. 19,06,100/- (Rupees Nineteen Lakhs Six Thousand One Hundred Rupees Only)</u> Only through online, payment link will be available at IREPS portal
E-tendering website	www.ireps.gov.in For any help, please contact IREPS Helpdesk at 011-23761525 (10 Lines)
Date and Time of start and submission of filled Tender Document	NIT and Tender Document can be viewed from 13.12.2021 and Bidding can be started from 20.12.2022 and can be submitted upto 15.00 Hrs of 03.01.2023 through <u>www.ireps.gov.in</u>
Issue of Corrigendum, if any	Upto 15 days prior to the last date of submission (on websites <u>www.ireps.gov.in</u> and <u>www.dfccil.com</u>)
Pre-Bid Meeting	<u>On 15.12.2022 at 12.00Hrs.</u> At office of Employer: Chief General Manager/DDU, DFCCIL, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai) Chandauli -232101, Uttar Pradesh, India The Pre-Bid Meeting shall also be organised through video-conference or virtual platform for which details will be uploaded on websites <u>www.ireps.gov.in</u> and <u>www.dfccil.com</u> prior to scheduled date.
Date and Time of Opening of Tender (Technical)	<u>Date. 03.01.2023 at 15.30Hrs.</u>
Validity of offer	120 days from the date of opening of the Technical Bid of the Tender
Security Deposit	5% of Contract value
Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 21 (twenty one) days from the date of issue of Letter of Acceptance (LOA), amounting to three percent (5%) of the contract value in the form as given in clause 16.4 of GCC.
Defect Liability Period	12 Months

1.1.2 Eligibility shall be assessed on applicants, fulfilling the technical capability and competence as well as for financial and organizational resources as specified in clause no. 1.3.13 (i) A & B of Preamble & General Instruction to tenders (Part - I, Chapter III).

1.1.3 Tender document will be available on DFCCIL's website www.dfccil.com, www.ireps.gov.in & Central Procurement portal eprocure.gov.in. For submission purpose, the Tender document can be downloaded from www.ireps.gov.in website.

Tenderers are advised not to make any corrections, additions or alterations in the downloaded tender documents. In case, any corrections additions or alterations in the downloaded tender documents are made, such tender shall be summarily rejected.

- 1.1.4 DFCCIL may issue amendment(s) [addendum(s) / corrigendum(s)] to the tender documents. In such cases the amendment(s) shall be issued and placed on DFCCIL's website: www.dfccil.com and www.ireps.gov.in at least three days in advance of date of opening of tender. The tenderer who have downloaded the tender documents from the website before issue of amendment(s) must visit the website and ensure that such amendment(s) (if any) is also downloaded by them. Such amendment(s) (if any) shall also be uploaded duly stamped and signed / digitally signed along with the submission of tenders. **Any tender submitted without amendment(s) (if any) shall be liable to be rejected.**

- 1.1.5 The tender documents shall be submitted in online mode only through website www.ireps.gov.in in single e-Packets only containing TECHNICAL BID and FINANACIAL BID. Detailed credential as per the requirement of eligibility criteria and all tender papers including Bill of Quantities are to be submitted.

Summary of Prices (Form No. 3) with % age above or below or at par on the amount of schedules "A-I, A-II and B-I" duly filled in along with Schedule of Prices (Form - 4) are to be submitted in **online mode only** through www.ireps.gov.in.

Tenderer shall submit the Cost of Tender Document in favour of DFCCIL as detailed in Para 1.3.4.3 of Preamble & General Instructions to Tenderers (Part-I, Chapter-III).

Tenderer shall submit the **Earnest Money** as detailed in Para 1.3.8 of Preamble & General Instructions to Tenderers (Part-I, Chapter-III).

The rates must be filled through website www.ireps.gov.in using digital signature for signing the document.

- 1.1.6 To participate in the E-Bid submission, it is mandatory for the bidders to have user ID & password from www.ireps.gov.in .
- 1.1.7 Tenders shall be opened at the address given below as mentioned in Para 1.1.1 above in the presence of the tenderers or their authorized representatives intending to attend the opening. Address of Office of the **Chief General Manager/DDU, DFCCIL**, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai), Chandauli -232101, Uttar Pradesh, India.

All the Bids received shall be opened on the date and time mentioned above in the tender notice. Bid of the bidders shall be opened through process of e-tendering. The sequence of opening shall be:

- i) Cost of Tender Document Details
- ii) Technical and Financial offer- (On same date and time)

- 1.1.8 Tender shall be submitted as per "Preamble & General Instruction to Tenderers" forming as part of the complete tender documents.

- 1.1.9 **Any tender received without Earnest money and/or cost of tender documents in the form as specified in the tender documents shall not be considered and shall be summarily rejected.**
- 1.1.10 DFCCIL reserves right to cancel the tender before submission / opening of tender, postpone the tender submission / opening date and to accept / reject any or all tenders without assigning any reason thereof. DFCCIL's assessment of suitability as per eligibility criteria shall be final and binding.
- 1.1.11 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 and action as per Bid Security Declaration will be taken. The decision of DFCCIL in this regard shall be final and binding.
- 1.1.12 DFCCIL 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. 1.1.11 of Notice Inviting Tender.
- 1.1.13 Information as required as per various Forms to tender document should be submitted by the tenderers without fail strictly as per formats.
- 1.1.14 The validity of offer shall be 120 days from the date of opening of the Technical Bid of the tender.
- 1.1.15 Transfer of the tender document purchased by intending tenderer to another tenderer is not admissible. Tenderer can submit tenders only on the documents purchased / downloaded from the website www.ireps.gov.in by them.
- 1.1.16 Tenderers must read all instructions regarding e-tendering process as mentions in PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS Part-I, Chapter-III.
- 1.1.17 **Tenderers are advised to visit the DFCCIL website regularly for information regarding tender. Amendment(s) (if any) will be uploaded on DFCCIL website www.dfccil.com and www.ireps.gov.in only.**

**Chief General Manager/DDU
For & on behalf of DFCCIL**

GENERAL INFORMATION / DATA SHEET

PART - I
Chapter II

GENERAL INFORMATION / DATA SHEET

Tender Notice No.	DDU-EN-SSM-RFO-Track-371
Name of the work	Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail FlyOver (RFO), over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC
Employer	Chief General Manager/DDU, DFCCIL, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai) Chandauli -232101, Uttar Pradesh, India Acting through: S K Jha Mobile: +917521802002 Email: skjha@dfcc.co.in
Engineer	Employer/Employer's authorized Representative
Type of Tender	Open E-Tender (Single stage Two Packet)
Type of Contract	Works Contracts
Estimated Cost	Rs. 7,62,43,324.00/- (Rupees Seven Crore Sixty Two Lakhs Forty Three Thousand Three Hundred Twenty Four Only).
Period of Completion	12 months
Cost of Tender Document	Rs. 11,800/- (Inclusive of GST) The cost of the tender document shall be deposited through e-payment mode at www.ireps.gov.in
Earnest Money	Rs. 19,06,100/- (Rupees Nineteen Lakhs Six Thousand One Hundred Rupees Only)
E-tendering website	www.ireps.gov.in For any help, please contact IREPS Helpdesk at 011-23761525 (10 Lines)
Date and Time of start and submission of filled Tender Document	NIT and Tender Document can be viewed from 13.12.2021 and Bidding can be started from 20.12.2022 and can be submitted upto 15.00 Hrs of 03.01.2023 through www.ireps.gov.in
Issue of Corrigendum, if any	Upto 15 days prior to the last date of submission (on websites www.ireps.gov.in and www.dfccil.com)

Pre-Bid Meeting	<p><u>On 15.12.2022 at 12Hrs.</u> At office of Employer: Chief General Manager/DDU, DFCCIL, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai) Chandauli -232101, Uttar Pradesh, India</p> <p>The Pre-Bid Meeting shall also be organised through video-conference or virtual platform for which details will be uploaded on websites <u>www.ireps.gov.in</u> and <u>www.dfccil.com</u> prior to scheduled date.</p>
Date and Time of Opening of Tender	<u>Date 03.01.2023 at 15.30 hrs</u>
Validity of offer	120 days from the date of opening of the Technical Bid of the Tender
Security Deposit	5% of Contract value
Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 21 (twenty one) days from the date of issue of Letter of Acceptance (LOA), amounting to three percent (5%) of the contract value in the form as given in clause 16.4 of GCC.
Defect Liability Period	12 Months

**PREAMBLE
&
GENERAL INSTRUCTIONS TO TENDERERS**

PART-I
Chapter- III

PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS

1.3.1 Introduction

(i) General

Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), a public sector undertaking has been set up under the Indian Companies Act, 1956 for implementation of Dedicated Freight Corridor Project. Government of India is the sole shareholder of the DFCCIL.

Ministry of Railways (MOR), Government of India has planned to construct Dedicated Freight Corridor (DFC) covering about 3338 route Kilometres on Eastern and Western Corridors. The coverage of Eastern Corridor is from Ludhiana to Dankuni and Western Corridor is planned from Jawaharlal Nehru Port, Mumbai to Rewari/Tughlakabad/Dadri near Delhi. There will be a linkage between two corridors at Dadri.

(ii) Eastern Dedicated Freight Corridor

Eastern DFC Route will be approximately 1839 Km long from Dankuni to Ludhiana via Dankuni–Asansole–Dhanbad–Gaya–Sonmugar - Mughalsarai- Allahabad - Kanpur - Tundla- Aligarh - Khurja - Bulandshahr – Meerut –Saharanpur–Ambala–Ludhiana. Proposed alignment of DFC has been generally kept parallel to existing Indian Railway line except provision of detours at some stations where the existing yards/cities are congested.

DFC tracks are passing through Sasaram Yard of East Central Railway where Sasaram-Ara Line of EC Railway is crossing DFC tracks. To avoid surface crossing at this location, a Rail Flyover (RFO) for Sasaram-Ara Line of EC Railway is under Construction.

Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail FlyOver (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC..

(iii) General instructions (for on line tendering system)

Submission of Online Bids is mandatory for this Notice Inviting Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. An e-tendering portal of Dedicated Freight Corridor Corporation of India (DFCCIL) introduced for the process of e-tendering which can be accessed on <http://www.ireps.gov.in>. (Refer in the BID DOCUMENTS)

Words in capital and not defined in this document shall have the same meaning as in “BID DOCUMENTS”.

Benefits to Suppliers/service providers are outlined on the Home-page of the portal.

A. ACCESSING / PURCHASING OF BID DOCUMENTS:

The Bidder who wish to view free Notification and Tender Documents can visit DFCCIL's website www.dfccil.com or www.ireps.gov.in or Central Procurement Portal www.eprocure.gov.in. Interested bidders who wish to participate should visit website www.ireps.gov.in, which is the only website for bidding their offer. Further the procedure is as follows:

It is mandatory for all the Bidders to have organizational class-III digital signature certificate from any of the licensed certifying agency ("CA") Bidders can see the list of licensed CAs from the link www.cca.gov.in] to participate in e-tendering of DFCCIL.

To participate in the E-bid submission, it is mandatory for the Bidders to get themselves registered with IREPS (Indian Railway e-Procurement System) and to have user ID & password . The E-Tender portal is <http://www.ireps.gov.in>.

B. PREPARATION & SUBMISSION OF APPLICATIONS:

Detailed BID DOCUMENTS may be downloaded from IREPS and the Bid may be submitted online following the instructions appearing on the screen. A Vendor manual containing the detailed guidelines for e-tendering system is also available on IREPS.

Only Electronic Form (to be uploaded on the IREPS)

Submission of Financial & Technical bid in prescribed Format in **ON LINE MODE ONLY**. No other mode of submission is accepted.

C. Document should be uploaded on the IREPS site(On line mode only)

- (a) Power of Attorney for signing the Application
- (b) If applicable, the Power of Attorney for Lead Member;
- (c) An undertaking from the person having PoA referred in sub clause (a) above that they agree and abide by the bid documents uploaded by DFCCIL and amendments uploaded, if any.
- (d) SUBMISSION OF FIRMS CREDENTIALS in prescribed format mentioned in BID DOCUMENT
- (e) SUBMISSION OF TECHNICAL PROPOSAL in prescribed format mentioned in BID DOCUMENT,
- (f) Copy of Memorandum and Articles of Association, if the Applicant is a body corporate, and if a partnership then a copy of its partnership deed;
- (g) Technical Bid Packet-A (duly signed & scanned or digitally signed), Financial Bid Packet-B and other relevant documents
- (h) Deleted
- (i) Deleted
- (j) The Bidder shall upload signed and scanned or digitally signed copies of the documents on the IREPS before scheduled date and time of

submission of Tender. No hard copy of the documents is required to be submitted.

D. Modification / Substitution/ Withdrawal of bids:

- (i) The Bidder may modify, substitute or withdraw its e-bid after submission but prior to scheduled date and time of submission of tender. No Bid shall be modified, substituted or withdrawn by the Applicant after scheduled date and time of submission of tender.
- (ii) Any alteration/ modification in the Bid or additional information supplied subsequent to the scheduled date and time of submission of tender, unless the same has been expressly sought for by the Authority, shall be disregarded.
- (iii) For modification of e-bid, applicant/tenderer has to detach its old bid from e-tendering portal and upload / resubmit digitally signed modified bid.
- (iv) For withdrawal of bid, applicant/tenderer has to click on withdrawal icon at e-tendering portal and can withdraw its e-bid.
- (v) Before withdrawal of a bid, it may specifically be noted that after withdrawal of a bid for any reason, applicant/tenderer cannot re-submit e-bid again.

E. OPENING AND EVALUATION OF BIDS:

- (i) Opening of Bids will be done through online process.
- (ii) For participating in the tender, the authorized signatory holding Power of Attorney shall be the Digital Signatory. In case the authorized signatory holding Power of Attorney and Digital Signatory are not the same, the bid shall be considered non-responsive.

The DFCCIL Authority shall open bid documents received in electronic form at the scheduled date and time of opening of tender i.e. in the presence of the Bidders who choose to attend. The DFCCIL Authority will subsequently examine and evaluate the Bids in accordance with the provisions set out in the BID DOCUMENTS.

The Financial Bid will be opened of the pre-qualified and short listed Bidders. The date of opening of Financial Proposal will be notified later on.

F. ONLINE E-BIDDING METHODOLOGY:

Online E- Bid System – Financial bids & Technical bids shall be submitted by the bidder at the same time. First the Technical Bid will be opened at the time and date notified in the tender notice. The Financial Proposal will be opened of the pre-qualified and shortlisted Bidders after technical evaluation of Bids. The date of opening of Financial Bid will be notified later on.

G. BROAD OUTLINE OF ACTIVITIES FROM BIDDERS PERSPECTIVE:

1. Procure a Digital Signing Certificate (DSC)
2. Registration on Electronic Tendering System (ETS)
3. Create Users and assign roles on ETS

4. View Notice Inviting Tender (NIT) on ETS
5. Download Official Copy of Tender Documents from ETS
6. Clarification to Tender Documents on ETS– Query to DFCCIL (Optional) – view response to queries posted by DFCCIL, through addenda if any.
7. Bid-Submission on ETS: Prepare & arrange all documents/papers for submission of bid & tender cost online and EMD deposit on online/offline as per instruction.
8. Attend Public Online Tender Opening Event (TOE) on ETS
9. Post-TOE Clarification on ETS (Optional)-Respond to DFCCIL's post-TOE queries

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

Note 1: It is advised that all the documents to be submitted are kept scanned and converted to PDF format in a separate folder on your computer before starting online submission. The Price bid shall be submitted through IREPS only. This file may also be saved in a secret folder on your computer. Financial Bid & Technical Bid duly filled in is to be uploaded in "Financial Offer & Technical Eligibility". The rates must be filled after downloading the financial bid document in the prescribed format from the website www.ireps.gov.in. The financial & Technical bid should be downloaded & then filled up, saved and uploaded on the E-tendering website using digital signature for signing the document.

Digital Certificates

For integrity of data and its authenticity/non-repudiation of electronic records and to be compliant with IT Act 2000, it is necessary for each user to have a Class Three Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class-III issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

H. Registration

Intending bidders are requested to register themselves via www.ireps.gov.in for obtaining user credential etc. DFCCIL has decided to use process of e-tendering for inviting this tender and thus the physical copy of the tender would not be sold.

I. Help Desk for E-Tendering

For any help, please contact IREPS Helpdesk at 011-23761525 (10 Lines)

(iv) SCOPE OF WORK:

EDFC alignment is passing parallel to Mughalsarai-Sonnagar section of Mughalsarai Division of East Central Railway. Along this route, one Rail Fly-Over (RFO) is under Construction for single line track over IR and DFC tracks to avoid surface crossing of DFC tracks with IR tracks at Sasaram. Now, the Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly

Constructed Rail FlyOver (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC is required.

Track and Track Related Works over RFO-SSM and at Both Ends for single line track:

Design and Construction of new Broad Gauge (B.G.) Track connecting Sasaram (SSM) yard with Ara Line over newly Constructed Rail FlyOver (RFO) , over IR and DFC Tracks in East Central Railway in the state of Bihar in Connection with construction of EDFC.

- 2.1 The Track & Track related works on main line, yards, etc. shall be undertaken between following stretches:

Construction of Bi-directional IR Track Over Sasaram Rail FlyOver connecting Sasaram (SSM) yard with Ara Line. Following junctions/connections/additional track are to be provided as per yard plan/part yard plan/connection plan given in the reference document:

If any work is executed by IR on DFCC which otherwise is within scope of the track works under this bid/contract will lead to negative.

Note: The scope of work is only indicative and as per requirement, more length of track and track related works may be added in the scope of work or location may change.

(v) Cost of the work:

The estimated cost of the tendered work is indicated in Part-I, Chapter-II (General Information/ Data Sheet)

- (vi)** The tenderer shall be governed by General Conditions of Contract (GCC), Preamble & General Instructions to Tenderers (ITT) and Special Conditions of Contract (SCC). Wherever, there is a conflict in any condition between GCC and Special Conditions of Contract mentioned in the tender documents, the condition mentioned in Special Conditions of Contract will prevail. However, Engineer's decision in this connection shall be final and binding. Part I, Chapter-IV and V of the tender document contains General Conditions of Contract and Special Conditions of Contract specific to this work and shall be applicable in the contract.

(vii) Location:

Works are to be executed between near Sasaram station of Mughalsarai – Sonenagar section of Mughalsarai division of E.C. Railway in Sasaram District of Bihar. However, DFCCIL reserves right to change the site of work anywhere in adjacent/adjoining area of the work in the jurisdiction and the contractor shall be bound to execute the work without any extra cost.

1.3.2(a) Tender Bid

The Tender Bid shall be submitted **through online only on website www.ireps.gov.in** as under:-

Packet -A

Eligibility/Qualifying element of the Tender Bid along with other documents

mentioned in para 1.3.2 (b) (i), here in after called “TECHNICAL BID “

Packet- B

Price elements of the Tender Bid as per para 1.3.2 (b) (ii), herein after called “FINANCIAL BID”. The TECHNICAL BID (Packet-A) shall be opened on the date of tender opening and the detailed scrutiny of TECHNICAL BID shall be carried out. The “FINANCIAL BID” (Packet-B) shall be opened only of those tenderers who qualify in “Technical bid”. The detailed procedure for tender opening and processing is given in Para 1.3.5.

1.3.2 (b) Form of Tender

The Tender documents shall be in **two separate packets** viz:-

"Packet-A" containing technical bid and "Packet-B" containing financial bid. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Summary of Prices and Schedule of Prices are to be submitted in "TECHNICAL BID" i.e. Packet-A. Summary of Prices and Schedule of Prices with percentage above/below/at par duly filled in are to be submitted in "FINANCIAL BID".

Tenders not submitted in the proper Forms are liable to be rejected.

(i) Documents to be submitted in the office of GM/CO/DFCCIL:

S. No	Description	Documents
(1)	NIL	NIL

(ii) Documents to be enclosed with the TECHNICAL BID (Packet- A):-

S. No	Description	Documents
(1)	Offer letter complete.	Form No.1
(2)	Tenderer's credentials in accordance with Para 1.3.13 (i), (ii) & (iii) of Part-I, Chapter-III (Preamble & General Instructions to Tenderers).	Form No. 2A, 2B & 2C
(3)	Affidavit for authenticity of certificates/ documents	Form No. 22
(4)	Bid Security Declaration	Form No. 24
(5)	Details of Earnest money in accordance with Para 1.3.8 and Cost of Tender Document in accordance with Para 1.3.4.3 of Part-I, Chapter-III (Preamble & General Instructions to Tenderers)	
(6)	Written confirmation authorizing the signatory of the tender to commit the tenderer and other documents as per format as applicable, in accordance with para 1.3.6 of Part-I, Chapter-III (Preamble & General Instructions to Tenderers).	

(7)	A copy of the tender papers including amendments duly signed and scanned or digitally signed by the tenderer on each and every page in token of his having studied the tender papers carefully shall be attached with the tender.
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(iii) Documents to be enclosed with the FINANCIAL BID (Packet B):-

S. No	Description	Documents
(1)	Summary of Prices, Schedule of Prices & Total Prices	Form No. 3 & 4

1.3.3 Tender Document

This tender document consists of following five parts:

PART/ CHAPTERS	DESCRIPTION
PART - I	
Chapter I	Notice Inviting E-Tender
Chapter II	General Information / Data sheet
Chapter III	Preamble & General Instructions to Tenderers
Chapter IV	General Conditions of Contract (GCC)
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PART - II	Technical Specifications
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PART - III	Additional Technical Specifications
Chapter I	Precautions while working in close proximity of existing Indian Railways Track
Chapter II	Codes & Specifications to be followed
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PART - V	Drawings

1.3.4 Sale and Submission of Tender Document

1.3.4.1 Tender document can be viewed from DFCCIL's website www.dfccil.com, www.ireps.gov.in & Central Procurement portal eprocure.gov.in. Amendment(s) (if any) will be uploaded on DFCCIL website www.dfccil.com and www.ireps.gov.in only. For submitting the tender, the Tender documents and amendment(s) can be downloaded from the www.ireps.gov.in by the registered tenderers only. The details of registration and online tendering process is mentioned in Para 1.3.1 (iii) above.

1.3.4.2 Clause applicable for tender documents downloaded from Internet

Tenderer/s is/are free to download tender documents at their own cost, for the purpose of perusal. Master copy of the tender document will be available in the office. After award of the work, an agreement will be drawn up. The agreement shall be prepared based on the master copy available in the office of **Chief General Manager/DDU, DFCCIL**, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai), Chandauli -232101, Uttar Pradesh, India and not based on the tender documents submitted by the Tenderer. In case of any discrepancy between the tender documents downloaded from the internet and the master copy, later shall prevail and will be binding on the Tenderers. No claim on this account shall be entertained.

1.3.4.3 Cost of Tender documents downloaded from internet

For submitting the tender, the Tender documents and Amendment(s), if any, is/are available on www.ireps.gov.in and the same can be downloaded and used as tender documents for submitting the offer. The cost of the tender document is indicated in NIT.

The cost of the tender document shall be deposited through e-payment mode at www.ireps.gov.in only.

In case, tender is not accompanied with the cost of the tender document as detailed above, tender will be summarily rejected.

1.3.4.4 Complete tender documents must be submitted online duly completed in all respect **upto the scheduled date and time mentioned in the Para 1.1.1 of Notice Inviting E-Tender.** The “**Packet-A (TECHNICAL BID)**” will be opened on the scheduled day and time and read out in the presence of such tenderer(s) as is/are present. In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time. Any modified date and time for submission of tenders shall be uploaded on DFCCIL website www.dfccil.com and www.ireps.gov.in. The detailed procedure of tender opening will be as per para 1.3.5.

1.3.4.5 Tender Document including ,Financial Bid to be downloaded from website www.ireps.gov.in and then, filled (through digital signature) on the same website and not to be submitted in hard copy at all. ***The financial bid (after filling the rates) should neither be scanned & uploaded, nor, the hard copy of the same***

should be submitted to the office of Chief General Manager/DFCCIL/DDU

1.3.4.6 Deleted.

1.3.4.7 Each page of the tender papers is to be signed either physically or digitally by the tenderers or such person/s on his/their behalf that is/are legally authorized to sign for him / them.

1.3.4.8 Care in Submission of Tenders-

(a) (i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account with that the rates he enters in the tender forms are adequate and all inclusive to accord with the provisions in clause-37 of the Standard Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.

(ii) Tenders will examine the various provisions of the Central Goods and Services Tax Act, 2017(CGST)/Integrated Goods and Services Tax Act, 2017(IGST)/Union Territory Goods and Services Tax Act, 2017(UTGST)/respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt & as amended from time to time and applicable taxes before bidding. Tenders will ensure that full benefit of Input Tax (ITC) likely to be availed by them is duly considered while quoting rates.

(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to DFCCIL immediately after the award of contract, without which no payment shall be released to the contractor. The contractor shall be responsible for deposition of applicable GST to the concerned authority.

(iv) In case, the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the DFCCIL shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.

1.3.4.9 Tenders containing erasures and/or alteration of the tender documents are liable to be rejected. Any correction made by Tenderer(s) in his/their entries must be attested by him/them. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the bid.

1.3.4.10 The bid submitted / received after the time and date fixed for receipt of Bids as set out in the documents are liable to be rejected.

1.3.4.11 Conditional tenders are liable to be rejected straightway. DFCCIL reserves the right to reject such tenders summarily without assigning any reasons whatsoever. In case tenderer/s still decides to have conditional offer, all such conditions are required to be listed separately and shall be supplemented by the details of exact financial implications, if applicable. DFCCIL will not take cognizance of any other conditions / variations from the tender stipulations mentioned at any other place in the tender documents.

1.3.4.12 The bidder shall submit only one bid in the capacity of an individual or sole proprietor, partnership firm or company. Violation of this condition is liable to disqualify the tender in which bidder has participated and EMD of all such tenderers shall stand forfeited.

1.3.4.13 Withdrawal of Tender: No tender can be withdrawn after scheduled date and time of submission and during tender validity period.

1.3.5 Opening of Tender:

- (a) Tender will be opened at the scheduled date and time mentioned in the Para 1.1.1 of Notice Inviting E-Tender in the office of **Chief General Manager/DDU, DFCCIL**, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai), Chandauli -232101, Uttar Pradesh, India in the presence of the tenderers or their representatives as may be present at the prescribed date and time.
- (b) Bid of the bidders shall be opened through process of e-tendering. The sequence of opening shall be:
 - i) Cost of Tender Document Details
 - ii) Technical offer- Technical Bid (Packet-A)
 - iii) Financial offer- (On a later date after scrutiny/evaluation of Technical Bid)
- (c) **‘TECHNICAL BID (Packet- A)’** only of all the tenderers shall be opened and the contents thereof i.e. qualification details shall be read out.
- (d) After the opening of “TECHNICAL BID” (Packet-A) of all the tenderers, these bids shall be scrutinized and analyzed. If found necessary by the Employer, the tenderers shall be asked to furnish clarifications and the Employer may also hold discussions with the tenderers after giving due notice. The names of the tenderers whose bid are considered complete and meet eligibility criteria shall be shortlisted.
- (e) The **FINANCIAL BID (Packet-B)** shall be opened on a subsequent date and time duly notified well in advance. The Financial bids of only those tenderers shall be opened who are shortlisted after scrutiny of their Technical bid. The Financial bid of the tenders who do not qualify during scrutiny of Technical bid shall not be opened and these shall be returned by the employer. The time of opening, date and venue shall be advised to qualified tenderers well in advance to enable them to depute their representative. The earnest money of non-qualifying tenderers will be returned back within a reasonable period after completion of results of Technical bid.

1.3.6 Constitution of the Firm:

1.3.6.1 Tenderer shall clearly specify whether the tender is submitted on his own or on behalf of a partnership firm / Company. The tenderer(s) who is / are constituents of the firm / Company, shall enclose self attested copies of the constitution of their concern, Partnership Deed and Power of attorney along with their tender. Tender documents in such cases shall be signed by such persons as may be legally competent to sign them on behalf of the firm / company as the case may be.

1.3.6.2 The tenderer shall give full details of the constitution of the Firm /Company and shall also submit following documents (as applicable), in addition to documents mentioned above:

- (a) Sole Proprietorship Firm: The tenderer shall submit the notarized copy of the affidavit.

(b) Partnership Firm : The tenderer shall submit self attested copies of (i) registered / notarized Partnership Deed and (ii) Power of Attorney duly authorizing one or more of the partners of the firm or any other person(s), authorized by all the partners to act on behalf of the firm and to submit & sign the tender, sign the agreement, witness measurements, sign measurement books, receive payments, make correspondences, compromise / settle / relinquish any claim (s) preferred by the firm, Sign "No claim Certificate", refer all or any dispute to arbitration and to take similar action in respect of all tenders / contracts or said tender / contract.

(c) Companies registered under Companies Act-1956: The tenderer shall submit (i) the copies of Memorandum of Association (MOA) and Articles of Association (AOA) of the company; and (ii) Power of attorney duly registered / notarized by the company (backed by the resolution of Board of Directors) in favour of the individual, signing the tender on behalf of company.

- 1.3.6.3** If it is mentioned in the tender submission that it is being submitted on behalf of / by a sole Proprietorship Firm / Partnership Firm /registered Company etc. but above-mentioned documents (as applicable) are not enclosed alongwith tender, the tender shall be summarily rejected.

If it is NOT mentioned in the tender submission that it is being submitted on behalf of / by a Sole Proprietorship Firm / Partnership Firm / Registered company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.

After opening of the tender, any document pertaining to the constitution of the Firm etc. shall neither be asked nor be entertained / considered by DFCCIL.

- 1.3.6.4** A tender from Partnership Firm etc. shall be considered only where permissible as per the tender conditions.
- 1.3.6.5** The DFCCIL will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the Firm made subsequent to the submission of tender. It may, however, recognize such power of attorney and changes after obtaining proper legal advice.

1.3.7 Validity of Tender:

Tenderer shall keep his offer open for a minimum period of **120 days** from the date of opening of the Technical Bid of the tender or as mentioned in the Tender Notice.

1.3.8 Earnest Money Deposit:

Earnest Money Deposit would be paid only through e-payment, link is available at IREPS Tending site, this is the only site for participation.

NOTE: No interest shall be paid by DFCCIL on earnest money amount.

1.3.9 Execution of Contract Agreement:-

The successful tenderer, whose tender has been accepted by the competent authority of DFCCIL, will be informed by the DFCCIL through a Letter of Acceptance (LoA). Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between DFCCIL and the contractor till such time the contract agreement is signed.

The Tenderer whose tender is accepted shall be required to appear in person at the office of **Chief General Manager/DDU, DFCCIL**, Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai), Chandauli -232101, Uttar Pradesh, India or if a firm or corporation, a duly authorized representative shall so appear and execute the contract agreement within 30days after notice that the contract has been awarded to him. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender in which case the full value of the earnest money accompanying the tender shall stand forfeited without prejudice to any other rights or remedies.

In the event of any tenderer whose tender is accepted refuses to execute the contract agreement as here in before provided, DFCCIL may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and DFCCIL shall be entitled to forfeit the full amount of the Earnest Money.

1.3.10 Security Deposit on Acceptance of Tender:

The Security Deposit/rate of recovery/mode of recovery on acceptance of tender shall be as per the Para 16. (1) to 16.(3) of General Conditions of Contract (GCC).

1.3.11 Tenderer's Address

The tenderer should state in the tender his postal address legibly and clearly. Any communication sent in time, to the tenderer by post at his said address shall be deemed to have reached the tenderer duly and in time. Important documents should be sent by registered post.

1.3.12 Right of DFCCIL to Deal with Tenders

- (a) The DFCCIL reserves the right of not to invite tenders for any of DFCCIL work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or to reject any tender or all tenders without assigning reasons for any such action.
- (b) The authority for the acceptance of the tender will rest with the DFCCIL. It shall not be obligatory on the said authority to accept the lowest tender or any other tender and no tenderer(s) shall demand any explanation for the cause of rejection of his/their tender nor the DFCCIL undertake to assign reasons for declining to consider or reject any particular tender or tenders.

1.3.13 (i) Eligibility Criteria

(A): Technical Eligibility Criteria

Criteria		Compliance Requirement		Documents
Requirement		Single Entity	Joint venture	Submission Requirements
(i)	The tenderer firm must have satisfactorily completed at least one single work in last	Must meet requirement	Not Allowed	The tenderer shall submit the completion

	five (05) previous financial years and the current financial year upto the date of submission of tender, of construction of Track and Track related works of Railway/Metro Railway of value Rs. 2.67 Crores (Rs Two Crore and Sixty Seven Lakhs) or more, AND			certificates / certified completion certificates from the client(s) and or Photocopies of original certificates of client.
(ii)	The tenderer firm must have satisfactorily completed in last five (05) previous financial years and the current financial year upto the date of submission of tender, a work of Design and Construction of Track and Track related works of P.way Civil and Electrical for Railway/Metro Railway	Must meet requirement	Not Allowed	The tenderer shall submit the completion certificates / certified completion certificates from the client(s) and or Photocopies of original certificates of client.

Note:

1. In case the tenderer/s is a partnership firm, the work experience shall be in the name of partnership firm only.

(B): Financial Eligibility Criteria

Criteria	Compliance Requirement		Documents
Requirement	Single Entity	Joint Venture	Submission Requirements

The contractual payments received by the tenderer firm or the arithmetic sum of contractual payments received by all the members of the firm in the previous three financial year and the current financial year up to the date of submission of tender shall be at least 150% of advertised value of tender.	Must meet Requirement	Not Allowed	TDS certificates/ Audited balance sheets and or Photocopies of TDS certificates/Audited Balance sheets clearly indicating the contractual amount received.
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Note:

1. In case the tenderer/s is a partnership firm, the turnover etc shall be in the name of partnership firm only.

1.3.13 (ii) Credentials of Tenderer

The tenderer shall provide satisfactory evidence in support of their technical and financial eligibility, which are acceptable to DFCCIL, as follows:

- (a) For Technical eligibility criteria, the details will be submitted in Form No.2A along with supporting documents.
- (b) For Financial eligibility criteria, the details will be submitted in Form No.2B along with supporting documents.
- (c) The tenderer shall submit the completion certificates/certified completion certificates from the client(s) or Photocopies of original certificates of client. These certificates should indicate the details of works carried out and successful commissioning of similar type of work executed by the tenderer. Completion certificate from Govt. Organization/PSUs/Public Limited Company will be accepted. **The certificate from Private individual / Private Company for whom such works are executed shall not be accepted.** In case, the work is executed for Public Limited Company, copy of work order, bill of Quantity, TDS certificate payments received and copy of final/last bill paid by client shall be submitted.

The following will be applicable for evaluating the eligibility:

- (i) Similar nature of work physically completed within the qualifying period, i.e. last 05 (five) financial year and current financial year (even though the work might have commenced before the qualifying period) shall only be considered in evaluating the eligibility.
- (ii) The total value of similar nature of work completed during the qualifying period and not the payment received within qualifying period alone shall be considered. In case, the final bill of similar nature of work has not been passed and final measurements have not been recorded, the paid amount including statutory deductions is to be considered. If final measurements have been recorded and work has been completed with negative variation, then also the paid amount including statutory deductions is to be considered.

However, if final measurements have been recorded and work has been

completed with positive variation but variation has not been sanctioned, original contract agreement value or last sanctioned contract agreement value whichever is lower, shall be considered for judging eligibility.

- (iii) As proof of sufficient financial capacity and organizational resources, contractor should have received total payments against satisfactory execution of all completed /on-going works of all types (not confined to only similar works) during the last three financial years and in the current financial year (up to the date of submission of the tender) of a value not less than 150% of advertised tender value.
- (iv) Tenderer shall submit a statement of contractual payments received during last three financial years and current financial year on the prescribed Performa as per Form No. 2B. The details shall be based on the form 16-A issued by the employer i.e. the certificate of deduction of tax at source as per Income Tax Act 1961. The photocopies of Form 16-A shall be enclosed duly attested by Notary Public with seal and Notarial Stamp there on or a certificate from auditor or audited balance sheet certified by Chartered Accountant clearly indicating the contractual amount received duly attested by Notary Public with seal and Notarial Stamp thereon.
- (v) The tenderer shall be considered disqualified/in-eligible if:
 - (a) The Tenderer or any of its partners and/or subcontractors included in the tender has been banned for business with Ministry of Railways/DFCCIL along with any of its attached and subordinate offices through an order issued by Ministry of Railways as per list available on Website (<http://www.indianrailways.gov.in/railwayboard>) of Railway Board pertaining to banning of Business, with the banning being valid as on the date of submission the Tender.
 - (b) The Tenderer or any of its partners has suffered bankruptcy / insolvency or it is in the process of winding-up or there is a case of insolvency pending before any Court on the deadline of submission of application.
- (vi) For the purposes of conversion of foreign currency to Indian rupees (INR) Bank Currency (BC) selling exchange rates as published by State Bank of India on the date 28 days prior to date of submission of tender shall be used. For few of the currencies where BC selling rates are not published by SBI or reserve bank of India, the exchange rate may be obtained from website- <http://www.oanda.com/currency/historical-rates> or <http://www.xe.com>.
- (vii) For the purpose of evaluation of proposals, all values given in INR in eligible qualification criteria and the values provided by the applicants in the proposal in the currencies other than INR shall be converted into one i.e. INR as per exchange rate mentioned in para (vi) above.

1.3.13 (iii) System of Verification of Tenderer's Credential:

1. For the works tenders, it has been decided to adopt the affidavit-based system of credential verification. The tenderer shall submit along with the tender document, documents in support of his/their claim to fulfill the eligibility criteria as mentioned in the tender document. Each page of the

copy of documents/certificates in support of certificates submitted by the tenderer, shall be self-attested/ digitally signed by the tenderer or authorized representative of the tendering firm. Self –attestation shall include signature, stamp and date (on each page).

2. The tenderers shall submit a notarized affidavit on a non-judicial stamp paper stating that they are not liable to be disqualified and all their statements/documents submitted alongwith bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as **Form-22**. Non submission of an affidavit by the bidder shall result in summary rejection of his/their bid. And 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. It will not be obligatory on the part of Tender Committee to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned.
3. The DFCCIL reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the DFCCIL, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the DFCCIL shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any right of the DFCCIL thereunder.
4. In case of any wrong information submitted by tenderer, the contract shall be terminated, Earnest Money Deposit (EMD), Performance (PG) and Security Deposit (SD) of contract forfeited and agency barred for doing business on entire DFCCIL for 5(five) years.

1.3.14 Period of Completion

The entire work is required to be completed in all respects within **12 months (Twelve months)** from the date of issue of the acceptance letter. Time is the essence of contract. The contractor shall be required to maintain steady and regular progress to the satisfaction of the Engineer to ensure that the work will be completed in all respects within the stipulated time.

1.3.15 Pre-Bid Meeting

A pre-bid meeting has been planned. Tenderer should give their queries in writing at least 3 days prior to Pre-bid meeting. All interested firms / contractors may attend the Pre-bid conference. DFCCIL response to queries will be posted on the DFCCIL's website www.dfccil.com. Non-attendance at the pre-bid conference will not be a cause for disqualification of the bidder. All communication between the Employer and the tenderer shall be in writing.

For the purposes of seeking clarification, the Employer's address is:

Chief General Manager/DDU, DFCCIL,
Manas Nagar Railway Colony,
Pt Deen Dayal Upadhyay Nagar (Mughalsarai),
Chandauli -232101, Uttar Pradesh, India
Mobile: +917521802002
Email: skjha@dfcc.co.in

The Pre-Bid Meeting shall also be organised through video-conference or virtual platform for which details will be uploaded on websites www.ireps.gov.in and

www.dfccil.com prior to scheduled date.

1.3.16 If the Tenderer/s deliberately gives any wrong information about credentials/documents in his/ their tenders and thereby create(s) circumstances for acceptance of his/their tender, DFCCIL reserves the right to reject such tender at any stage, besides, shall suspend business with such tenderer. The EMD of such tenderers shall also be forfeited.

1.3.17 Deleted

1.3.18 Quantum of work and materials:

The indicative schedule of quantities of various items of works is included in Form – 3 and Form- 4 of the tender documents.

1.3.19 Employer not bound to accept any tender:

The employer shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. The employer reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender papers or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever.

1.3.20 Schedule of Prices

The Form-3 and Form-4 of Part-IV, Chapter-II of BID DOCUMENTS lists out the Schedule of Prices for various items. Based on these, the total tender value has also been worked out.

1.3.21 Performance Guarantee: Refer relevant clause of GCC.

1.3.22 The tenderer shall furnish information for making payment through ECS/ NEFT / RTGS (Tender Form No. 8 placed at Part IV of the tender documents).

1.3.23 Negotiation:

Should DFCCIL decide to negotiate with a view to bring down the rates, the tenderer called for negotiations should furnish the following form of declaration before commencement of negotiations?

"I..... do declare that in the event of failure of contemplated negotiations relating to Tender No..... datedmy original tender shall remain open for acceptance on its original terms and conditions,".

1.3.24 Site Inspection:

Tenderers are requested to inspect the site and carry out careful examination to satisfy them as to the nature of work involved and facilities available at the site. They should note carefully all the existing structures and those under construction through other agencies. They should also study the suitability of utilizing the different equipments and the machinery that they intend to use for the execution of the work. The tenderers should also select suitable sites for the

purpose of locating their store yard, laboratory, staff quarters etc., and satisfy themselves with regard to the feasibility of transporting the girders, etc. from the yard to the final site of placement etc.

1.3.25 No form C & D shall be issued to the contractor for this work.

1.3.26 Preliminary examination of bids

- a) The DFCCIL shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.
- b) Arithmetical errors shall be rectified on the following basis if found. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected.
- c) The rates should be quoted in figures as well as in words. If there is variation between rates quoted in figures and in words, the rate quoted in 'words' shall be taken as correct. If more than one or improper rates are tendered for the same item, the tender is liable to be rejected.
- d) Prior to the detailed evaluation, DFCCIL 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. A material deviation, objections, conditionality or reservation is one:
 - a. That affects in any substantial way the scope, quality or Performance of the contract.
 - b. That limits in any substantial way, inconsistent with the bidding documents, the DFCCIL's rights or the successful Bidder's obligations under the contracts; or
 - c. Whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.
- e) If a bid is not substantially responsive, it shall be rejected by the DFCCIL.
- f) In case of tenders containing any conditions or deviations or reservations about contents of tender document. DFCCIL can summarily reject such tender.

1.3.27 Evaluation and comparison of tenders

In case of open tenders, bids, which are determined as substantially responsive, shall be evaluated based on criteria as given in Eligibility Criteria" and as given in Notice Inviting E-Tender. The tenderer must submit all necessary authentic data with necessary supporting certificates of the various items of evaluation criteria failing which his tender is liable to be rejected.

1.3.28 Canvassing

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

1.3.29 Award of Contract

1. DFCCIL shall notify the successful tenderer in writing by a Registered

Letter/Courier/Speed Post/Email or through bearer that his tender has been accepted.

2. Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between DFCCIL and the contractor till such time the contract agreement is signed.

1.3.30 Understanding and Amendments of Tender Documents:

1. The bidder must own all responsibilities and bear all cost for obtaining 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.

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 should obtain at his own cost 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.

3. At any time prior to the deadline for submission of bids, DFCCIL 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 Amendment, which shall be part of the Tender documents.

4. DFCCIL may at its discretion extend the deadline for submission of the bids at any time before the time of submission of the bids.

1.3.31 Provision for medium & small enterprises (MSE):

As mandated by Railway Board Letter No. 2010/RS (G)/363/1 dated 05.07.2012 (RBS No. 4/2012), in compliance to public procurement policy, following provisions are included for Medium & Small Enterprises (MSE) in the tender document:

1. Tender sets shall be provided free of cost to MSEs registered with the listed agencies for the item tendered.
2. MSEs registered with the listed agencies for the item tendered will be exempted from payment of Earnest Money.
3. (I) MSEs who are interested in availing themselves of these benefits will enclose with their offer the proof of their being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME indicated below:

- (i) District industries Centres
- (ii) Khadi and Village Industries Commission
- (iii) Khadi and Village Industries Board
- (iv) Coir Board
- (v) National Small Industries Corporation
- (vi) Directorate of Handicraft and Handloom
- (vii) Any other body specified by Ministry of MSME.

(II) The MSEs must also indicate the terminal validity date of their registration.

Falling (I) & (II) above, such offers will not be liable for consideration of benefits detailed in MSE notification of Government of India dated 23.03.2012.

4. Definition of MSEs owned by SC/ST is as give below:
 - (i) In case of proprietary MSE, proprietors (s) shall be SC/ST.
 - (ii) In case of partnership MSE, the SC/ST partners shall be holding at least 51% shares in the unit.
 - (iii) In case of Private Limited Companies at least 51% share shall be held by SC/ST promoters.
5. All bidders registered under Micro, Small and Medium Enterprises (MSMEs) shall have to satisfy the eligibility criteria at par with other bidders. There shall not be any relaxation in eligibility criteria/tender process or other tender requirements and L-1 price.
6. ***The above facilities shall not be applicable for the items for which they are not registered.***
7. The tenderer (s) shall submit copy of current and valid MSMEs registration certificate inclusive of all the pages showing the category of entrepreneur – whether the registered firm is owned by General or SC/ST entrepreneurs, monetary limit of their registration for the items tendered to avail the benefits under the policy. The MSMEs shall also submit a copy of “Entrepreneur’s Memorandum (Part-II)” of the concerned district centre where the unit is established.
8. **Registration of Udyog Aadhar Memorandum (UAM):** All Micro, Small and Medium Enterprises (MSMEs) bidders are required to declare UAM Number on CPPP /www.ireps.gov.in failing which such bidders will not be able to enjoy the benefits as per Public Procurement Policy for tenders invited electronically through CPPP /www.ireps.gov.in

**GENERAL CONDITIONS OF CONTRACT
(GCC)**

GENERAL CONDITION OF CONTRACT

The General Conditions of Service Contract 2022 of the Indian Railways shall be followed with its latest correction slips and amendments issued from Indian Railways. The General Conditions of Service Contract 2022 of the Indian Railway, along with its latest correction slips and amendments, will form part of the Tender/ Contract documents. In case, there is an ambiguity in any definition, the decision of DFCCIL regarding the interpretation shall be final and binding. Wherever there is conflict in any condition between GCC and special condition mentioned in Tender Documents. The condition mentioned in special condition of contract will prevail. However, DFCCIL decision in this connection shall be final and binding. A copy of the book-let incorporating the above "General Conditions of Contract-2022 is attached along with the Tender Document.

**SPECIAL CONDITIONS OF CONTRACT
(SCC)**

PART - I
CHAPTER V

SPECIAL CONDITIONS OF CONTRACT

- 1.5.1** This Tender shall be governed by Preamble & General instructions to tenderers, General condition of Contract, Special conditions of contract, Technical Specifications, Additional Technical specifications (if any), Drawings, Forms, Annexures, etc.
- 1.5.2** If there are varying or conflicting provisions in the documents forming part of the contract, Engineer shall be deciding authority with regard to the intentions of the provision and decision of Engineer will be final and binding on the contractor.
- 1.5.3** **Scheme of work:** -Within a period of 28 days beginning from the date of issue of Letter of Acceptance of Tender, the Contractor shall submit the detailed time schedule for execution of work and various documents enumerated in tender papers to the employer.

1.5.4 **Quality Assurance Plan for Substructure and foundation**

All materials used in the work shall be of the best quality as per codes. Quality Assurance Plan shall include for materials used and for workmanship of work. The contractor shall submit Quality Assurance Plan for the substructure and foundation. The contractor shall also ensure that the Employer's prescribed Quality Assurance Standards are rigidly followed in for the construction of substructure and foundation. These are to be approved from the client / DFCCIL

1.5.5 **Quality Assurance Plan for Superstructure including bearings**

- (a) All materials used in the work shall be of the best quality as per codes / Specifications for Fabrication and Erection of Steel Girder Bridges (B1-2001) amended till date. Quality Assurance Plan shall include for materials used and for workmanship of work. Quality Assurance Plan shall also be prepared for erection of girder and casting of deck slab. The contractor shall submit Quality Assurance Plan for the superstructure and bearing. The contractor shall also ensure that the Employer's prescribed Quality Assurance Standards are rigidly followed for the construction of superstructure including bearing. Since, the superstructure is open web / composite steel girder designed by RDSO / RITES, Quality Assurance Plan shall be in line with Quality Assurance plans prepared by RDSO for Open Web Girder and POT & POT-PTFE bearings. These plans are to be approved from the DFCCIL/RDSO
- (b) The contractor shall ensure quality at all necessary points, whether at manufacturers' works, or in his depot or at work site as well as during erection through Quality Assurance Plan.
- (c) The Contractor shall adopt a suitable Quality Assurance Programme according to approved instructions, drawings, specifications, etc.
- (d) The erection scheme of Open Web Girder/ Bow string girder / other Girders shall be

approved by Railway/DFCCIL before start of erection of girder.

- (e) Fabrication of Open Web Girder / Steel girder will be inspected by DFCCIL's Engineer in Charge / RDSO / PMC's representative as per approved QAP.

1.5.6 Expenses of Employer' Representative– All the expenses of Engineers representative shall be borne by the Employer whether the inspected material is finally utilised in work or not.

1.5.7 The decision of the Engineer shall be final in respect of acceptability or otherwise of any material, fittings, component or equipment required for the work.

1.5.8 This programme of the Contractor shall generally cover the following:-

1.5.8.1 The organization to manage and implement the Quality Assurance Programme.

1.5.8.2 The documentation control system:

- (i) Basic control system.
- (ii) Adopted at manufacturer's work
- (iii) Adopted at the Contractor Depot and work site.

1.5.8.3. Procedure adopted for:

- (i) Source Inspection.
- (ii) In coming raw material inspection.
- (iii) Verification of material purchased.
- (iv) Fabrication Controls.
- (v) Site erection controls.

1.5.8.4 Inspection and Test Procedure for:

- (i) Manufacture and quality control procedure.
- (ii) Field activity.

1.5.8.5 System of handling and storage.

1.5.8.6 System of quality audit.

1.5.8.7 System of maintenance of records.

1.5.8.8 For the purpose of obtaining On Account Payment, the Contractor shall submit along with the invoice, the documents indicated in the prescribed quality Assurance standards which should inter alia cover the following as may be applicable in each case.

- (i) Material test reports on raw materials used.
- (ii) Material type and routine test report on components specification.
- (iii) Inspection Plan with reports of the inspection Plan check points.
- (iv) Routine test report.
- (v) Factory test results as required under the specification.
- (vi) Quality audit report including test check report of Employer's representative if any.

1.5.9 Traffic Blocks / Power Blocks / Shut Down:

- (a) The contractor shall obtain Power / Traffic / Shut down in the name of authorized representative of DFCCIL. Engineer/Engineer's representative will facilitate to make

arrangements to obtain power blocks / shutdown (hereinafter referred to as blocks) for works to be carried out along or adjacent to the track work. Works such as foundations of abutments/piers shall generally be done without blocks. However if block is required due to safety considerations, the construction shall be done under block. The requirement of shut down, power blocks etc . shall be assessed by the contractor and will be submitted to the Engineer/Engineer's representative. All the erection of girders etc. shall be done under minimum power block/shut down. Contractor will arrange minimum two gangs of labours i.e. expert of TR line fitters, Semi skilled fitters, labours etc. with super visors and sufficient tools and tackles required as per site conditions. Work will be done day & night with war foot level with the approval of the Engineer/Engineer's representative.

- (b) Blocks will be granted during day & night hours continuous. The Contractor shall confirm that he will equip himself to carry out all construction during night blocks efficiently by suitable special lighting equipment without any extra cost.
- (c) Block period shall be counted from the time the TR-line is placed at the Contractors disposal at the work-spot till it is cleared by the Contractor.
- (d) Blocks will be subject to normal operating conditions and rules of the Railway. All formalities of exchanging private number etc. with the traffic control/traction power controller will be carried out by the Engineer staff and for this purpose the Engineer will depute a representative, who will be responsible for imposing power blocks/shut down and also removing the same after men, material and equipment have been cleared by the Contractor from running tracks and the same declared safe for traffic by Engineer/Engineer's representative in case of works involving safety of running tracks.
- (e) The works required to be done under traffic block shall be carried out only in the presence of DFCCIL officials. The Railway supervisor shall certify safe conditions for passage of trains before resumption of traffic. The works to be done under traffic block shall be carried out under the provision of banner flag and protection of engineering flagman.
- (f) Any charges which may be levied by IR on account of "Possessions" shall be payable by the contractor but shall be reimbursed by the Employer. However penalties, if any, levied by Indian Railways caused due to any careless working or otherwise of violation of the Terms and Conditions of the track block, shall be payable by the contractor.

1.5.10 Work By Other Agencies

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

- (b) The contractor shall not be entitled to any extra payment due to hindrance resulting from normal Railway operations, such as delay on account of adequate number of and duration of blocks not being granted, operational delay in movement of work trains extension of time to the contractor.

1.5.11 Infringement of patents:

- (a) The Contractor is forbidden to use any patents or registered drawings, process or pattern in fulfilling his contract without the previous consent in writing of the owner of such patent, drawing, pattern or trade mark, except where these are specified by the Employer himself. Royalties where payable for the use of such patented processes, registered drawings of patterns shall be borne exclusively by the Contractor. The contractor shall advise the Employer of any proprietary right that may exist on such processed drawings or patterns which he may use of his own accord.
- (b) In the case of patent taken out by the Contractor of the drawings or patterns registered by him, or of those patents, drawings, or patents for which he holds a licence, the signing of the Contract automatically gives the Employer the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him in carrying out the repair work. In the event of infringement of any patent rights due to above action of the Employer, he shall be entitled to claim damages from the contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.
- (c) **Indemnification by contractor:-** In the event of any claim or demand being made or action being brought against the Employer for infringement of later patent in respect of any equipment, machine, plant, work or thing used or supplied by the Contractor under this contract or in respect of any methods of using or working by the Employer of such equipment machine, plant work or thing, the contractor shall indemnify the employer and keep him indemnified and harmless against all claims, costs, charges and expenses arising from or incurred by reason of such claim provided that the Employer shall notify the contractor immediately any claim is made and that the contractor shall be at liberty, if he so desires with the assistance of the Employer if required but at the Contractor's expense, to conduct all negotiations for the settlement of the same or any litigation that may arise there from and provided that no such equipment, machine, plant work or thing, shall be used by the Employer for any purpose or in any manner other than that for which they have been supplied by the Contractor and specified under this contract.

1.5.12 Insurance:- (CAR policy)

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 employer from reputed companies under the following requirements:

(a) Insurance against Injury to Persons and Damage to Property

The Contractor, as insuring Party, shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 1.5.12 (b) [*Insurance for Works and Contractor's*

Equipment) or to any person / animal (except persons insured under Sub-Clause 1.5.12 (c) [*Insurance for Contractor's Personnel*]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than the Rs. 100 Lakh (Rs Hundred Lakh), with no limit on the number of occurrences.

The insurances specified in this Sub-Clause:

- a. shall be effected and maintained by the Contractor as insuring Party,
- b. shall be in the joint names of the Contractor and Employer,
- c. shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 1.5.12 (b)) arising out of the Contractor's performance of the Contract

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Employer, the Contractor and Subcontractors (wherever applicable) as separately insured.

The Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Sub-Contractor (whether applicable), other than death or injury resulting from any act or default of the Employer, his agents or employees. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

(b) Insurance for Works and Contractor's Equipment

The Contractor, as insuring Party, shall insure the Works, Plant, Materials and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the Date of Commencement, until the date of issue of the Taking-Over Certificate for the Works.

The Contractor shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations.

The Contractor shall insure the Contractor's Equipment for **not less than the full replacement value, including delivery to Site plus 15% of replacement cost.** For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

The insurances specified in this Sub-Clause:

- (a) shall be effected and maintained by the Contractor as insuring Party,

- (b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated between the Parties for the sole purpose of rectifying the loss or damage,
- (c) shall cover all loss and damage from any cause not listed as Employer's Risks,
- (d) shall also cover loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the Employer's Risks, excluding (in each case) risks which are not insurable at commercially reasonable terms
- (e) may however exclude loss of, damage to, and reinstatement of:
 - (i) a part of the Works which is in a defective condition due to a defect in its design, Materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - (ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, Materials or workmanship
 - (iii) a part of the Works which has been taken over by the Employer, except to the extent that the Contractor is liable for the loss or damage, and

(c) Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel. The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

(d) Automobile Liability Insurance

The contractor shall effect and maintain an insurance covering use of all vehicle used by the contractor or its sub contractors (whether or not owned by them) in connection with the design, construction, testing and commissioning of the facilities under the contract in accordance with statutory requirements.

(e) Professional Indemnity Insurance

The Contractor shall provide evidence of professional indemnity insurance carried by its Designer for the Works. The professional indemnity insurance shall cover the risk of professional negligence in the design of the Works. This insurance shall be for a limit of not less than Rs. 50 Lakh and shall be maintained in full force and effect from the Commencement Date of the Works until 03 years after the date of completion of the Defect Notification period.

The Engineer will not issue any payment certificate until the Contractor has provided evidence of this insurance and its period of effectiveness.

The contractor shall provide evidence to the Employer / Engineer before commencement of work at site that the insurances required under the contract have

been effected and shall within 60 days of the commencement date, provide the insurance policies to the Employer/Engineer, the contractor shall, whenever, called upon, produce to the engineer or his representative the evidence of payment of premiums paid by him to ensure that the policies indeed continue to be in force.

The Contractor shall also obtain any additional insurance cover as per the requirements of the Contract or Law of the Country.

The Employer/Engineer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or his sub-contractor or petty contractor / other contractor working there. The Contractor shall indemnify and keep indemnified the employer / Engineer against all such damages and compensation for which the contractor is liable.

The Policies of the contractor shall remain in force throughout the period of execution of the works and till the expiry of the defect liability period except for any specific insurance covers necessary for shorter period.

If the Contractor fails to effect or keep in force or provide adequate cover as acceptable to the engineer in the insurance policies mentioned above, then in such cases, the engineer may effect and keep in force any such insurance or further insurance on behalf of the Contractor. The recovery shall be made at the rate of 1.5 times the premium/premiums paid by the engineer in this regard from the payment due to the Contractor or from the contractor's Performance security. However, the Contractor shall not be absolved from his responsibility and /or liability in this regard.

1.5.13 Accident:-

- (a) The contractor shall, in respect of all staff engaged by him or by his sub-contractor, indemnify and keep the employer at all times indemnified and protected against all claims made and liabilities incurred under Workman's Compensation Act, the Factories Act and the Payment of Wages Act, and rules made there under from time to time or under any other labour and Industrial Legislation made from time to time.
- (b) The contractor shall indemnify and keep the employer indemnified and harmless against all actions, suits, claim demands, costs, charges or expenses arising in connection with any death or injury sustained by any person or persons sustained due to the acts or omission of the contractor, his sub-contractors, his agents or his staff during the executions of this contract irrespective of whether such liability arises under the Workman's Compensation Act, or Fatal Accident Act or any other statute in force for the time being.
- (c) The contractor's liability to meet third party claims of the type outlined above will be applicable only in cases where accidents have been caused by workmanship, material, execution or negligence on the part of the contractor and further the liability of the contractor will be limited to Rs.50 lakh for any one accident without any limit on the number of accidents.
- (d) The contractor shall be responsible for all repairs and rectification of damages to completed works or works under execution due to DFCCIL accidents, thefts, pilferage or any other cause, without delay to minimize or to avoid traffic detentions, in a section until the installation are provisionally handed over to the employer.

1.5.14 Safety Measures:-

- (a) The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the railway premises, but shall then conform to the rules and regulations of the Railway if and when, in the course of the work there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway siding and premises, the contractor shall provide flagman or look out men for protection of such persons. The employer shall remain indemnified by the contractor in the event of any accident occurring in the normal course of work, arising out of the failure of contractor or his men to exercise reasonable precaution at all places of work.
- (b) Blasting of rocks for foundation work shall be done only after due notice is given to the employer and time/s and date /s for blasting operations agreed to by the employer. Blasting, if required to be done in the vicinity of the track, shall not be undertaken until the Employer's flagmen on duty take necessary step to protect trains and the track is adequately protected by the contractor against damage by blasted rock. The contractor shall follow detailed instructions which will be issued to him regarding blasting operations in the vicinity of tracks
- (c) The contractor shall abide by all Railway regulations in force for the time being and ensure that the same are followed by his representatives, Agents or sub -contractors or workmen. He shall give due notice to his employees and workers about provision of this para.
- (d) The works must be carried out most carefully without any infringement of the Indian Railway Act or the General and Subsidiary Rules in force on the Railway, in such a way that they do not hinder Railway operation or affect the proper functioning of or damage any DFCCIL equipment, structure or rolling stock except as agreed to by the employer, provided that all damage and disfiguration caused by the contractor at his own cost failing which cost of such repairs shall be recovered from the contractor.
- (e) If safety of track or track drainage etc. is affected as a consequence of works undertaken by the contractor, the contractor shall take immediate steps to restore normal conditions. In case of delay, the employer shall, after giving due notice to the contractor in writing, take necessary steps and recover the costs from the contractor.

1.5.15 Guarantee / Defect Liability Period:-

- (a) The Contractor shall guarantee that all the works executed under this contract shall be free from all defects and faults in material, workmanship and manufacture and shall be of acceptable standards for the contracted work and in full conformity with the technical specifications, drawings and other contract stipulations, for **a period of 12 months** from the date of taking over by the Employer
- (b) During the period of guarantee the Contractor shall keep available an experienced engineer /manpower to attend to any defective works / installations resulting from defective erection and/or defect in the installation supplied by the Contractor. This engineer shall not attend to rectification of defects which arise out of normal wear and tear and come within the purview of routine maintenance work. The contractor shall bear the cost of modifications, additions or substitutions that may be considered necessary due to faulty materials or workmanship for the satisfactory working of the equipment. The final decision shall rest with the Engineer his successor(s)/Nominee.
- (c) During the period of Guarantee the Contractor shall be liable for the replacement at site of any parts which may be found defective in the executed work whether such parts / structural elements of his own manufacture or those of his sub-contractor

/ supplier whether arising from faulty materials, workmanship or negligence in any manner on the part of the Contractor provided always that such defective parts as are not repairable at site are promptly returned to the Contractor if so required by him at his (Contractor's) own expenses. In case of parts of executed work detected during guarantee period, contractor should replace all such items irrespective of the fact whether all such items have failed or not. The Contractor shall bear the cost of repairs carried out on his behalf by the Employer at site. In such a case, the contractor shall be informed in advance of the works proposed to be carried out by the Employer.

- (d) If it becomes necessary for the Contractor to replace or renew any defective portion of the structural elements until the expiration of six month from the date of such replacement or renewal or until the end of the above mentioned period whichever is later.

Such extension shall not apply in case of defects of a minor nature, the decision of the Chief General Manager / CPM or his successor/nominee being final in the matter. If any defect be not remedied within a reasonable time during the aforesaid period the Employer may proceed to do work at the Contractor's risk and expense, but without prejudice to any other rights and remedies which the Employer may have against the Contractor in respect of such defects or faults.

- (e) The repaired or renewal parts structure shall be delivered / supplied and erected / executed on site free of charge to the employer.
- (f) Any materials, fittings, components or equipment's / structure supplied under items for supplying / providing and fixing in schedule shall also be covered by the provisions of this paragraph. The liability of the Contractor under the guarantee will be limited to re-supply of components / structure installation and fittings.

1.5.16 Final Acceptance:

- (a) The final acceptance of the entire work executed shall take effect from the date of expiry of the period of guarantee / Defect Liability Period as defined in paragraph 1.5.15 above of the expiry of the last of the respective periods of guarantee of various items (viz. Track, linking, packing, fittings, etc), provided in any case that the Contractor has complied fully with his obligations under clause 1.5.15 in respect of each item, provided also that the attention has been paid by way of maintenance by the Employer.
- (b) If on the other hand the contractor has not so complied with his obligation under Para 1.5.15 above in respect of any work, the Employer may either extend the period of guarantee in respect of that work until the necessary works are carried out by the Contractor or carry out those works or got them carried out suo-moto on behalf of the Contractor at the Contractor's expenses. After expiry of the period of guarantee for each work, a certificate of final acceptance for the section shall be issued by the Employer and the last of such certificate will be called the last and final acceptance certificate. The contract shall not be considered as completed until the issue of final acceptance certificate by the Employer.
- (c) The Employer shall not be liable to the Contractor for any matter arising out of or in connection with the contract or execution of the work unless the Contractor shall have made a claim in writing in respect thereof before the issue of final acceptance certificate under this clause.

Notwithstanding the issue of final acceptance certificate the Contractor and the Employer (subject to sub-clause as above) shall remain liable for fulfilment of any obligation incurred under the provision of the contract prior to the issue of final acceptance certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

1.5.17 Payment

Payment will be governed by the terms specified in Part-I, Chapter IV /Chapter- V (GCC /SCC) and in accordance with accepted schedule of prices, read with relevant para of the other parts and Chapters of the Tender Document. The employer retains the right to withhold money due to the contractor arising out of this contract for any default of the contractor.

- (i) The Contractor shall, whenever required, produce or cause to be produced for examination by the Employer any quotation / invoice, cost of other account, book of account, voucher, receipt letter, memorandum paper or writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in anyway relating to the execution of this contract or relevant for verifying or ascertaining the cost of the execution of this Contract (the decision of the employer on the question of relevancy of any documents, information or return being final and binding on the parties). The Contractor shall similarly produce vouchers etc., if required, to prove to the Employer that materials supplied by him are in accordance with the specifications laid down in the contract.
- (ii) If any portion of the work be carried out by a sub-contractor or any subsidiary or allied firm or company the Employer shall have power to secure the books of such sub-contractor or any subsidiary or allied firm or company, through the Contractor, and such books shall be open to his inspection. The Contractor should seek prior permission from the employer for subletting whole and/or part of the work to any sub-contractor.
- (iii) The obligations imposed by sub-clause (i) and (ii) above are without prejudice to the obligation of the Contractor under any statute, rules or order binding to the Contractor or other conditions of the contract.
- (iv) It is an agreed term of the contract that the employer reserves t h e right to carry out post-payment Audit and/or technical examination of the works and the final bill, including all supporting vouchers, abstracts etc. and to make a claim on the Contractor for the refund of any excess amount paid to him if as a result of such examination any over payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

1.5.18 All payments in respect of the contract during the currency of the contract shall be made through Electronic Clearing System (ECS) / National Electronic Funds Transfer (NEFT/RTGS). The successful tenderer on award of contract must submit ECS/NEFT/RTGS Mandate Form complete in all respects as detailed at Form No. 8 of the tender document. However, if the facility of ECS/NEFT/RTGS is not available at a particular location, the payments shall be made by cheque.

1.5.19 Performance Guarantee:-

- (i) The Bank Guarantee for performance Guarantee shall remain valid until a date 60 days (or as specified in the Contract) after expiry of Defects Liability Period.

- (ii) The Bank Guarantee for performance Guarantee shall be submitted invariably in the format given in the bidding document.
- (iii) The performance Guarantee shall be released after 21 days of issue of performance certificate.

1.5.20 Advances to Contractor: - Deleted

(a) Mobilization advance:

Deleted

(b) Advance Against Machinery and Equipment:

Deleted.

(c) Advances for accelerating progress of the work during course of execution of Contract:

Deleted

(d) Advances in Exceptional Cases:

Deleted

(e) The above advances are subject to the following conditions:

Deleted

(f) Method of Recovery of Interest –

Deleted

1.5.21 Statement of Dispute: - Refer to clause 63 and 64 of GCC.

1.5.22 Integrity Pact:-

As per office memorandum no F.No DPE/13(12)/11-Fin Dated 09.09.2011 issued by Ministry of Heavy Industries (DPE) all PSU should enter into Integrity pact in the required proforma in their procurement transaction/ Contracts with suitable changes specific to the situation in which the pact is to be used. The pact, entering into which would be a preliminary qualification for any bidder, essentially envisages an agreement between the prospective vendors / bidders and the DFCCIL, committing the persons/ officials on both sides not to resort to any corrupt practices in any aspect / stage of the contract.

A copy of pre contract integrity pact is enclosed as Form No. 20 for signature of bidder as acceptance. The details of Independent External monitor (IEM) shall be collected from the office of GM/DFCCIL/DDU whenever required.

TECHNICAL SPECIFICATIONS

PART - II

TECHNICAL SPECIFICATIONS

For technical specifications, refer relevant Indian Railways Unified Standard Specifications (Formation Works, Bridge Works and P.Way Works), 2019 as amended upto date, Indian Railways Unified Standard Specifications (Works & Materials), 2010 as amended upto date, the specification for fabrication and erection of steel girder bridges and Locomotive Turn Table (Fabrication Specification), Serial No B1 - 2001 amended upto date other IRS/IRC/IS Codes and Specifications as applicable.

Indian Railways Unified Standard Specifications (Formation Works, Bridge Works and P.Way Works), 2019 and Indian Railways Unified Standard Specifications (Works & Materials), 2010 and 2012 are available on website www.indianrailways.gov.in.

For Non-Schedule items, the specifications in Tender Document / Schedule shall be applicable.

In case of any conflict between Technical Specification, Additional Technical Specification mentioned in Part-II and Part-III of Tender Document, Codes / Specifications mentioned above or otherwise or regarding correct applicability of relevant specification, the decision of Engineer shall be final and binding.

PART - II**Chapter I****GENERAL GUIDELINES REGARDING SPECIFICATIONS AND SPECIAL CONDITIONS FOR TRACK WORKS****4.1 Track Works:**

4.1.1 The permanent works shall comprise of but not limited to the design, construction, manufacture, supply, installation, testing and commissioning of:

- a) Track on main line, yards, special location like level crossings, points and crossings, bridges, Rail Flyover, Viaducts, etc. complete including its connection with the heel of crossing of turnouts on existing IR track connecting UP DFC and DN DFC separately as per the plans approved by the Employer.
- b) Track super structure including but not limited to setting out, benchmarking, rail and sleepers with fastenings, turnouts, dead ends, expansion joints, track signage:
- c) Remodeling, fixing of CC blocks, check rails and fencing of Level Crossing Gates of Existing Indian Railways located on DFCC alignment. Fencing should be on all four sides of LCs as per plan approved by DFC and IR.
- d) DFCC Yard complexes including fencing,
- e) Wherever DFC alignment is passing through/ adjacent to Indian Railway yards a provision of a permanent continuous un-scalable but see-through fencing made up of steel section between Indian Railways and DFC tracks shall be made covering a length between outer most points and crossings only on one side between IR and DFC tracks.

Such provision has to be made at all stations where DFC is passing adjacent to Indian Railway Yard. In case of Blockhut/ flag station of IR, the length of such fencing shall be length of platform plus 50 m on each side of platform. Existing fencing if any, released from IR shall be handed over to IR at nominated location by the contractor.

- f) Any other activity connected with the construction of track commissioning.

4.1.2 Permanent Way

- “The permanent Way layout for the Works shall generally be based on the provisions contained in Indian Railways permanent Way Manual, Track Manual, LWR Manual & relevant IRS specifications with latest amendments/corrections.
- Permanent Way Work includes supply (except rails being free supply items ex Bhilai) and fixing of:
 - Rails , pre-stressed concrete sleepers (at all locations), elastic fastenings, GFN liners, turnouts (switches and crossing), track signages, dead end etc. on already completed ballast bed by existing civil (D&B) contractor.
 - Welding of rails into 130 mtr panel in stationary / temporary depot and then laying the track on carpeted bed of ballast by suitable mechanical equipment's with Contractor's machines and equipment's.
 - Spreading & profiling of ballast for boxing, multiple tamping of the track with employers machines so as to make the track fit for 100 kmph. However, the initial kaccha packing has to be done by the contractor's own track tampers (hand help/off track).

Please refer to the above invitation for Bid (IFB) uploaded on DFCC website for the work, “Design, Supply and Construction of Track & Track related works including Testing & Commissioning for double track electrified railway line on Design Build Lump Sum

Basis from Mughlsarai to New Sonnagar and Chirailapathu (excluding New Karwandiya – New Durgawati section) of Eastern Dedicated Freight Corridor.

4.1.3 Works in Station area and yards

Contractor shall validate the yard plans provided in the bidding document for crossing and junction stations. However, IR yard remodelling work, shifting of Points and crossing, insertion of turn out or any Civil work of IR yards is not a part of the scope of work of this contract. Contractor shall Design, construct and provide on DFCC alignment Yard complex with track, fencing, signages and any other facility as detailed in the Employer's Requirement. Contractor would be required to work with other Contractors in the DFC yards for signalling, electrification and other requirements.

4.1.4 Level Crossings

Contractor is required to do regrading of road approaches/road corrections if required, fixing of CC blocks in DFCC portion and in between nearest IR track and DFCC track, check rails and fencing (un-scalable but see through fencing) of Level Crossing Gates on either approaches of Existing Indian Railways located on DFC alignment as per provisions of IRPWM. However, diversion of road, road signage and height gauge are not the part of scope of work.

4.1.5 Temporary Work

The Contractor shall execute all Temporary Works required to facilitate construction and the cost thereof shall be included in the overall bid price. All temporary arrangements and Works shall be designed and necessary drawings developed to ensure that these remain safe during construction. As a rule temporary Works shall be subsequently dismantled and removed by the Contractor after construction at his own cost. The Engineer however may permit retention of some of the temporary works with mutual consent between the Contractor and the Engineer.

4.1.6. Incidental Works

In addition to above the Contractor shall undertake various incidental Works to complete the entire project successfully. The Contractor shall include cost of such incidental Works in his Bid price. Some of the incidental Works are listed below:

- (i) **Site Safety Compliance:** The Bidder shall submit as part of his bid a Site Safety Plan.
- (ii) **Quality Assurance:-**The Bidder shall submit as part of his bid a Quality Assurance Plan which shall include Quality Assurance procedures and regulations to be developed and the mechanism by which these will be implemented for ensuring Quality compliance as per the Employer's Requirements detailed in Part-2, Volume-6, Appendix 5 of Bidding Document
- (iii) **Interface Management:** The Contractor for this Work shall also act as an Interface manager for the whole Works and shall bear the overall responsibility for Interface management with other Contractors and agencies. After award of Contract the Contractor shall submit an Interface Management Plan which shall include procedures and regulations to be developed and the mechanism by which Interfacing will be implemented as per the Employer's Requirements .
- (iv) **Integrated Testing and Commissioning:-** The Contractor for this Work shall be required to conduct Integrated test for the entire System in coordination with other Contractors and agencies to meet the requirements as mentioned in the bidding documents.
- (v) **Restoration of existing roads and services affected by contractor's machines l equipments** has to be done by the contractor at his own cost. In case the management of traffic around the worksite becomes necessary, the Contractor shall carry out the same at his cost. The Engineer however, may at times request the Contractor to leave the temporary diversion of the road in place. All such requests by the Engineer shall be entertained by the Contractor.
- (vi) While working in close proximity of existing IR track, the Contractor shall obtain permission for Works with or without traffic block from concern Railway authority/interfacing agencies wherever applicable and DFCC shall assist in obtaining such permits. Extra precautions to be observed by the Contractor while working in close proximity of existing Indian railway track as listed in Part2 Volume 5, Construction, Testing and Commissioning, Employer's Requirements.

- (vii) Benchmarking, setting out, photography, videography, report submission, permanent markers like, signages, boards etc. As Built drawings, inspection books, registers for record & maintenance of track/ alignment etc. Construction, Testing and Commissioning, Employer's Requirements.
- (viii) The Contractor shall be responsible for obtaining relevant certificates or clearances from local/civil authorities' viz. completion certificate, fire clearance or any other mandatory clearances which may be specified by these authorities from time to time.

4.2. There are five main parts of this work

4.2.1 Track Design criteria

- (1) Design Axle Load of 25 tonnes with train speed of up to 100 kmph and trailing load up to 15,000 tonnes. The track infrastructure will also comprise of providing crossing stations with loops of 750 m, level crossings, turn-outs, switch expansion joints, rail insulated joints, sidings. The yard plans for crossing stations shall be made showing the future provision for extension upto 1500m.
- (2) The track layout shall be based on the provisions contained in Indian Railways Permanent Way Manual, Track Manual & relevant IRS specifications with latest amendments/corrections upto the date of opening of bid.

A) Employers' Obligation:

RDSO Drawings for various items as detailed in this para should be procured by the Contractor from RDSO. Necessary assistance shall be provided by the Employer if required by way of recommendation letter.

S. No.	Description Drawings	Drawings no. & Location
1	Pre stressed Concrete Sleeper for 25T Axle Load for BG	RDSO/T-7008
2	Rail seat Assembly on concrete sleeper with 60 Kg UIC rails.	RDSO/T-7009
3	PSC sleepers for I in 12 Turnouts	RDSO/T-4218
4	ERC MK-V	RDSO/T-5919
5	10 mm thick composite Groove Rubber pads	RDSO/T-7010
6	Improved Switch Expansion Joints (SEJs)	RDSO/T-6922, (65 mm gap) RDSO/T-6902, (80 mm gap)
7	Fish plates and Fish bolts for UIC 60 rail	RDSO/T-5916
8	Pre stressed concrete sleeper for SEJ for long welded rails, BG 1676 mm, 60kq (UIC)	RT- 8224 SEJ
9	PSC sleeper for BG (1676 mm), 60kg (UIC) running rail & 60 kg (UIC) guard rail on Bridge approach	RT- 8229 Bridge approach
10	PSC guard rail sleeper for 60 kg running rail & 60 kg (UIC) guard rail for BG (1676 mm)	RT-8228 Ballasted Bridge Deck

11	PSC sleeper for level crossing with 60 kg (UIC) running rail, 52 kg check rail for 25 t axle load BG (1676 mm)	RT – 8225 Level Crossing
12	Rail seat assemble for level crossing on PSC sleeper with 52 kg check rail for 25 t axle load BG (1676 mm) 60 kg (UIC)	RT – 8226 Level Crossing
13	CI Bracket for 52 kg check rail to be used on PSC sleeper BG (1676 mm) 60 kg (UIC)	RT -8222 Level Crossing
14	Glass filled Nylon- 66 insulating liner for use with ERC MK-V on concrete sleeper (RT-7008) suitable to 60kg UIC rail for 1676mm gauge	RT-8222 & RT-8223 Rail Seat
15	Insulated Glued joints	RDSO-T-5483
16	Steel Channel Sleeper on Girder Bridges	RDSO/T-5155 to 5164 with modification to suit 1676 mm gauge as per drawing provided in reference document

Some of these drawing have been issued for 1673mm gauge, for 1676 mm gauge same drawing shall be used and adjustment of gauge will be carried out by using GFN 66 insulating liner (RT 8222 and RT-8223) with ERC MK-V as applicable. In case these are not suitable then new suitable liners shall be designed by the contractor.

B) Contractor's Obligations:

I. Validation of RDSO Drawings as stated above:

Contractor should validate the above drawings by making a test track of 3 rail lengths and checking the required track parameters under floating conditions as per IRPWM provisions. If any corrections are required in these drawings on account of checking of track parameters then the same should be done by the contractor in For other items including but not limited to the following shall have to be designed by consultation with the employer.

II. Design:

For other items including but not limited to the contractor and submitted to the employer for its clearance by RDSO/Employer. It will be prime responsibility of the contractor to get the necessary clearance for these components. DFCC will extend all help in getting requisite clearance from RDSO as and if required.

- (i) The items requiring clearance from RDSO/DFCCIL are Design of:
 - a) Canted Points and crossings with Thick web switch along with corresponding modification in PSC turnout sleeper sets.
 - b) Weldable CMS crossings
 - c) Any other component for completion of the work as required
- (ii) The RDSO/DFCCIL has already cleared the design of canted turnout in another project of DFCCIL. Alternatively, the contractor can also use these approved design/drawings duly fulfilling the requirements for the use of the same i.e. after obtaining the rights from the owner/developer of the same.

(iii) Items requiring clearance of Engineer/Employer:

- (a) Design of Track alignment based on the formation alignment and location of yards given in the bid document. The designed alignment includes the design of Horizontal and vertical curves, transition curves.
- (b) Preparation of LWR/CWR plans

- (c) Any other item required for completion of the work like Design scalable see-through fencing etc.

III) Other items:

- a) Validation of Yard layout

IV) General Information:

The alignment as shown in project sheets is to be considered only indicative and the Contractor is to acquaint and satisfy himself regarding the site conditions. Interlocking of switches, earthing and bonding of electrical circuit arrangements in the track will be done by the Systems & other Contractor. The Contractor shall do necessary interfacing with the Systems & other Contractor so that there is no delay/ holdup.

4.2.2 Procurement of P-Way materials

4.2.2.1 Rails: 13/26m (Length is indicative) long Rails will be supplied to the contractor ex. Works Bhilai by the employer required for:

- construction of main line,
- turnout, Switch Assembly, Lead rails in turnouts, Check rails in turnouts
- additional rail required during flash butt welding Insulated Glued Joints
- 52 Kg check rails for level crossings and
- 60Kg guard rails on bridges

The transportation for the same either through Railway wagons or by Road will be responsibility of the Contractor. For the information of the contractor to bring rails from Bhilai, the details of booking stations may be enquired from IR. However, Employer does not take any responsibility for change in booking stations.

- ❖ Extra Rail as per the extant provisions of flash butt welding manual will be supplied by the Employer to compensate the loss of Rails on account of Flash Butt Welding of joints.
- ❖ No extra rail will be supplied by the employer to compensate the loss of rails on account of rejection of joints beyond permissible limit as per Indian Railway Flash Butt Welding Manual. Additional rail required on account of failure of FB joints beyond permissible limits will be procured by the employer at the cost of Contractor.
The scrap generated on account track laying/welding will be the property of the employer.

4.2.2.2 Check Rail for Level Crossings shall be supplied from suitable locations other than Bhilai by the Employer. The contractor should transport these rail to site.

4.2.3.1 Sleepers (Main line/Turnouts/Special):

Mainline & Turnout PSC sleepers shall be procured by the contractor through any RDSO approved sleeper manufacturer or by setting up of their own plant as per the existing guidelines of RDSO. In case of procurement of sleepers by setting up of the plant by the contractor himself DFCC may assist the contractor for RDSO inspection for clearance of the plant for mass production of sleepers. For procurement of sleepers for 25T axle load from a particular plant, the contractor has to arrange RDSO approval for manufacture of the said sleepers. DFCC will provide necessary assistance by way of forwarding their letter to RDSO for giving necessary approval. However, inspection charges of the sleepers shall be borne by the Employer/DFCCIL

4.2.4.1 Other Components:

Components Designed by RDSO- to be procured from RDSO approved vendor/manufacturers. If the vendor is not approved for that item then it can be procured from the RDSO approved vendors for similar items e.g. if approved vendors for GFN-66 (RT-8222 and 8223) is not available then it can be procured from RDSO approved vendors for standard GFN-66 (Liners).

Components designed by the Contractor:

From any other sources provided the equipment / item meets the technical requirements/acceptance criteria.

Note: The list of suppliers/vendors approved for various items are available at the website of RDSO (www.rdsso.gov.in). Procedures for registration of the new suppliers/vendors for railway equipments/items are also available at the website of RDSO

4.2.3 Laying of P-Way

The contractor has to do the laying and linking of track with suitable equipments to achieve desired progress. Centre line of tracks shall be fixed/marked as per designed alignment of track. Civil works in this section is also in progress for which some of the bridge/earthwork construction take place simultaneously. This may lead discontinuity in the stretch of track laying. Therefore contractors may suitably plan to complete the maximum of track works leaving these discontinuities pending for completion in final phase. Sleepers shall be transported and stacked at appropriate locations along the alignment or at base depots/moving depots/temporary depots depending upon the method of track laying adopted by the contractor.

4.2.3.1 Laying of Sleepers

The laying of Sleeper shall be done in such a manner to ensure the proper spacing and squaring of Sleepers on the Ballast Bed. For this purpose the contractor may use some small machines like Wheeled / Crawler mounted cranes/hydra attached with octopus sleeper spacing assembly or any suitable mechanical means to ensure proper spacing and squaring of the sleepers with all precautionary measures to avoid any damage of sleepers.

4.2.3.2 Laying of Rails

The rails brought to site shall be welded by flash butt welding machines in stationary/ moving depots to make the rail panel of 130 metre or more. Stationery or moving depot for flash butt welding can be located at convenient locations (on spare land /formation) keeping in view the discontinuity in the alignment. These rail panels shall be placed on Sleepers with the help of suitable mechanical equipments with the help of rollers/suitable devices placed at appropriate spacing and fixed on sleepers with the help of rail threader or suitable mechanical device etc. Further rail panels shall be moved through wheeled devices like rail dolly, dip lorry or any suitable mechanical means and placed on sleepers by pulling with proper placement of rollers and taking other precautionary measures to avoid damage of rails and sleepers.

Rail panels, after laying in track, shall be welded to make Continuously Welded Rail (CWR) track for as much length as possible, for which the Contractor shall prepare the CWR plans for the approval of the Engineer in advance under design submission schedule in accordance with the design principles / provisions contained in LWR Manual.

4.2.3.3 Laying of turnouts :

The turnouts which includes switches, crossings, lead rails, etc, should be laid using suitable mechanical means to ensure proper spacing of the sleepers with all precautionary measures to avoid any damage of sleepers and rails as per design requirements.

4.2.4 Welding of Rails

The rail panels, used for CWR track shall be of length not less than 130 metre. All rails joints shall be welded in stationery or moving depot using Flash Butt welding process. The rails panels of length 130mtr or more shall be welded together in-situ to make LWR/CWR panels as per the approved plans using mobile flash butt welding plant. USFD testing of all flash butt welded joints should simultaneously be done so that defective joints detected if any, are removed and welded with flash butt joints. In

exceptional cases, panels of less than 130 metre can be permitted with the approval of Engineer. In exceptional cases of isolated welds, Alumino Thermit (AT) weld process may be used, with prior permission of the Employer.

4.2.4.1 USFD testing of welds

Contractor has to organise the USFD testing as per Indian Railway USFD manual of

- the welded joints in the welding depot
- Isolated welds on formation (for converting long welded rails (130 mtr to continuous welded rails, lead rails on turnouts, SRJS, SEJs joints, glued joints, etc.)

4.2.5 Destressing of Track:

Destressing of track shall be done as per the provisions of LWR manual,

4.2.6 Testing Commissioning and Interfacing:

Contractor will have to take the overall responsibility for the testing and commissioning of his work and all interfacing issues with other contractors deployed by the Employer on the project.

**PART-II
CHAPTER-II**

**GENERAL GUIDELINES REGARDING SPECIFICATIONS AND SPECIAL CONDITIONS FOR
DESIGN OF TRACK**

1.0 INTRODUCTION

- (1) This document specifies the procedural requirements for the preparation of the Design of the Permanent Works.
- (2) In addition to the express requirements stated herein, the Contractor shall, whenever the Engineer so requests, provide information and participate in discussions that relate to Design matters.
- (3) Engineer shall obtain specific written consent of the Employer before communicating clearance for all definitive design & drawings submitted by the Contractor for Track alignment, layout calculation, calculation of speed on curves and sanction of Commissioner of Railway Safety.
- (4) The Contractor shall, in accordance with Clause 5.1 of the General Conditions of Contract engage the designer(s) who shall undertake and prepare the Design of the Works.
- (5) The Contractor shall establish an office for his core design team at suitable location between the proposed section. All meetings and discussions relating to design shall be held in that office or the office of Engineer/Office of Employer (either in Field or in HQ).
- (6) The Contractor shall ensure that the Designer and his team continue to be represented in India at all times by staff whose seniority and experience in their respective fields of activity, are to the satisfaction of the Engineer and whose representative is available on the Site as necessary or as required by the Engineer.
- (7) The key Designers who shall formally sign the Design must have the necessary qualification required by the applicable legislation in India, as well as their engineer's degree/diploma being recognised in India.
- (8) The Contractor shall submit his Quality Assurance Plan for the Design required in the Contract .

2.0 GENERAL

- (1) The Contractor shall implement a project quality management plan in accordance with EN ISO-9001 -2001, international (ISO 9001-2001), "Quality System"- Model for Quality Assurance in Production, Installation and Servicing" to ensure that all materials, workmanship, plan and equipment supplied and work done under the Contract meets the requirements of the contract.
- (2) This plan shall apply to all activities related to the quality of items, including designing, purchasing , inspecting, handling, assembling testing, storing, and shipping of materials and equipment and different elements of construction work and installations of components.

- (3) The contractor shall, within Twenty Eight (28) days of the Commencement Date, prepare and submit to the Engineer for review his proposed Quality Assurance Plan, which shall comply with the requirements as mentioned in this Appendix.

3. QUALITY ASSURANCE MANAGEMENT PLAN

- (1) The Project Quality Management Plan (PQMP) shall as a minimum address the quality system elements as required by EN ISO 9001-2001, generally noting the applicability to the Contractor 's Works programme for the project.
- (2) Procedures or quality plans to be prepared by others (suppliers, sub-contractors, etc) and their incorporation in the overall PQMP shall be identified.
- (3) The Contractor shall provide and maintain with the Engineer a Quality Assurance (QA) plan to regulate methods, procedures, and processes to ensure compliance with the Contractor requirements.
- (4) The QA plan, including QA written procedures, shall be submitted to the Engineer for his review.
- (5) Adequate records shall be maintained in a readily retrievable manner to provide documented evidence of quality monitoring and accountability.
- (6) These records shall be available to Engineer at all time during the term of the Contract and during the Defects Notification Period.

4.0 PLAN IMPLEMENTATION AND VERIFICATION

- (1) The Plan shall clearly define the Quality Assurance (QA) organisation. Management responsibility for the QA shall be set forth on the Contractor's policy and organisation chart.
- (2) The plan shall define the requirements for QA personnel , their skills and training.
- (3) Records of personnel certifications shall be maintained and monitored by the QA personnel. These records shall be made available to the Engineer for review, upon request.
- (4) The QA operations shall be subject to the Engineer's Employer or his authorised representative's verification at any time.
- (5) Verification will include: surveillance of the operations to determine that practices, methods and procedures of the plan are being properly applied; inspection to measure quality of items to be offered for acceptance; and audits to ensure compliance with the Contract documents.
- (6) The Contractor shall provide all necessary access, assistance and facilities to enable the Engineer to carry out on-site and off-Site surveillance of QA audits to verify that the quality system which has the consent of the Engineer is being implemented fully and properly.

5.0 REQUIREMENTS DURING THE DESIGN PHASE

- (1) The principal requirements of the Design Phase are the production of the documents by the Contractor, which shall fully describe the Works and include the Definitive Design and "Good for Construction Drawings".
- (2) The volume and contents of the documents shall be in accordance with the applicable regulations/legislation in India, existing codes, manuals and standards applicable on Indian Railways, or suitable international norms.
- (3) The Contractor shall obtain all necessary approvals and agreements for his designs on his account in accordance with the applicable legislation in India & current practices.
- (4) The Definitive Design shall be prepared in accordance with the requirements for technical design in the codes, manuals & standards applicable on Indian Railways, applicable regulations/legislation in India and existing international norms/standards as agreed with the Engineer.
- (5) All technical solutions, schemes, structures, materials should be fully compatible with requirement of DFCC and should not be in conflict with the applicable rules/codes/manuals & standards as well as the legislation in India.
- (6) The Contractor shall prepare the necessary sets of his designs in English for submitting to the relevant authorities responsible for the approvals in accordance with the contractual provisions & the applicable legislation in India.
- (7) The Definitive Design shall accord with, and incorporate the Contractor's Proposals and shall be the design developed to the stage at which all elements of the track & track related works are fully defined and specified. In particular the Definitive Design shall be complete when:
 - (a) all calculations and analyses are complete including verification;
 - (b) all main and other significant elements are defined;
 - (c) all tests, trials and selection of materials and equipments are complete;
 - (d) The effects
 - on the Permanent works of the proposed methods of construction, installation, testing and commissioning and
 - on the Temporary Works are assessed.
- (8) During the preparation of the Definitive Design, all surveys, and testing necessary to complete the Design of the permanent works shall be undertaken by the Contractor.
- (9) One hard and soft copy of the Design of Permanent works shall be submitted for approval to the Engineer. After approval of the definitive design of Permanent works, three additional hard copies and one softcopy should be provided by the Contractor.
- (10) After approval of the Engineer the Contractor may proceed to the next stage of the Project for obtaining notice of No Objection.
- (11) Upon issue of the Notice in respect of the Definitive Design Submission, the Contractor shall complete the Design in all respects and produce the Good for Construction Drawings, the purpose of which is to illustrate all the Permanent works and to be the drawings governing the Construction.

- (12) These drawings shall fully detail the Construction of the elements covered by the Definitive Design, and shall show in full, the Works to be constructed.

6.0 REQUIREMENTS DURING CONSTRUCTION PHASE

- (1) The principal requirements relating to the Contractor's documents during the construction Phase are
- the production by the Contractor of Working Drawings and documents,
 - the preparation of technical submissions as required under the Contract,
 - the compilation of the final design and
 - the production of the As-Built Drawings and final documentation.
- (2) The final design is the design of the Permanent Works embodied in:
- (a) The latest revisions of the documents comprising the Definitive Design, taking account of comments in the schedules appended to Notices of No Objection;
 - (b) The latest revisions of all the drawings;
 - (c) The calculations (see Clause 9 herein); and
 - (d) Such other documents as may be submitted by the Contractor at the request of the Engineer to illustrate and describe the Permanent Works and for which a Notice has been issued.

7.0 DESIGN INTERFACES WITH INTERFACING CONTRACTORS

- (1) The Contractor shall be responsible for all co-ordination of all design and installation work with the various interfacing parties including interfacing contractors as detailed in Part 2 "Employer's Requirement, Section V, Volume 6, Appendix 2-Design and Construction Interfaces".
- (2) The Contractor shall co-ordinate with all Interfacing Contractors and Parties to produce a detailed programme of access dates, equipment delivery routes and occupation periods for each equipment room and area inside the railway envelope. It is anticipated that Systems Contractor(s) shall be in place after the Commencement Date of Works Contractor shall plan his interfacing requirements accordingly. For certain urgent requirements and non availability of requisite information certain assumptions can be made in consultation with the Engineer so that progress of Work is not adversely affected.

8.0 DESIGN SUBMISSION

The Design Submission shall be a complete set of Contractor's documents, properly consolidated and indexed and shall fully describe the proposed Design. In particular, and where appropriate, it shall define but not be limited to:

8.1 General

- .a) The dimensions of all major features, elements and members;

- b) Schedules of all materials;
- c) Potential forces and movements due to all possible loadings and actions on the structures, and their accommodation;
- d) All stress calculations due to secondary loading;
- e) Standard details;
- f) Proposed Good for Construction drawings pertaining to each component for consideration of the Engineer;
- g) Erection methods;
- h) IR interface requirements;
- i) Report on interfacing contracts;
- j) Provisions and proposals for construction interfacing with the Interfacing
- k) Maintenance report

8.2 Track

- (a) Survey on site and review of technical requirement as given in the Bid Document and recommendations if any.
- (b) Design of Track alignment based on the formation alignment and location of yards given in the bid document. This includes:
 - Location plans, geometry (vertical & horizontal), yard plans, diagrams and setting out drawings;
 - Track layouts(Horizontal & Vertical Alignment);
- (c) Drawings of Track components which includes
 - 1 in 12 Canted Points and crossings with Thick web switch along with corresponding modification in PSC turnout sleeper sets.
 - 1 in 12 Weldable CMS crossings
 - Derailing switches as per IRS standard
 - Any other track component if required.
- (d) Preparation of LWR and CWR plans
- (e) Level crossing arrangements with detailing
- (f) Methodology of construction in detail
- (g) Signage requirements and plan
- (h) Temporary construction depots & depot equipment layouts;
- (i) Schedules of all machines and equipment
- (j) Testing and commissioning proposals

8.3 DOCUMENTS

8.3.1.1 Technical specifications

- (1) The Specifications included in the Contractor's technical proposals together with the Design criteria shall be amplified so as to comprehensively specify the design and construction of the Works.

8.3.1.2 Report on interfacing contracts

- (1) The Report shall include details of the Design and Construction of the Works being undertaken adjacent to other contracts, during interfacing stage.

8.3.1.3 Testing and commissioning reports

- (1) The report shall include details of proposals for testing and commissioning procedures for all relevant elements and equipment contained in the Permanent Works.

8.3.1.4 Maintenance reports

- (1) The report shall be updating the statement of maintainability in the Contractor's technical proposals and detailing maintenance routines necessary for the achievement of the required life of the various elements of the Works.

8.3.2 Supporting documents

- (1) Where relevant or required, these documents shall be accompanied by a design note stating clearly how the information has been used in the design of the Permanent Works.

8.3.2.0 Construction / manufacturing/installation analysis reports

- (1) A report shall be containing a stage-by-stage construction/ manufacturing/installation sequence for all track components/ equipment.

8.3.2.1 Construction method statements

A report shall provide sufficient information on the methods of Construction/Installation of the Contractor's Equipment to allow the Engineer to assess their effects on the Permanent Works and to enable these to be taken into account in the review of the Definitive Design.

8.3.2.2 Project schedule review

- (1) The Contractor shall, prior to submitting the Design Submission, review the project schedule.
- (2) The Design submission should be in accordance with the Project Schedule.
- (3) In the event that the Contractor considers there to be any discrepancies or inconsistencies between the design submission and the project schedule, the Contractor shall submit with the Definitive design, its proposed revisions to the project schedule such that the discrepancies or inconsistencies are removed.
- (4) The Contractor shall provide details of submissions of the proposed Working Drawing and documents and their anticipated timing during the construction phase.

- (5) The Contractor shall identify information required from or actions to be undertaken the Employer or others and which are necessary to permit the completion of the desi of the Permanent Works and the Working Drawings and documents.
- (6) Dates of the receipt required by the Contractor of such information or for completion of such actions shall be included with appropriate justification.

9.0 DESIGN SUBMISSIONS GOOD FOR CONSTRUCTION DRAWINGS

- (1) These drawings shall form part of the Working Drawings to be used for construction purposes.

10.0 DESIGN SUBMISSIONS-CONSTRUCTION PHASE

- (1) On the issue of a Notice in respect of the Good for Construction Drawings, the Contractor shall produce the proposed Working Drawings.
- (2) Prior to submission of the proposed Working Drawings, the Contractor shall endorse the appropriate original paper drawings as "Good for Construction" and take No Objection for these drawing from Engineer.
- (3) The Contractor shall finalise details of the proposed method of construction and submit such finalised details to the Engineer for review.
- (4) As-Built Drawings and documents, endorsed by the Contractor shall be submitted to the Engineer for agreement in accordance with para 10.0 below.

11.0 DESIGN SUBMISSIONS - REVIEW PROCEDURES

- (1) Design submissions shall be reviewed by the Engineer who shall coordinate the design review for the Employer and communicate the decision within 28 days of receipt of complete information on the subject matter.
- (2) The Contractor shall, prior to the submission of the Design Data, obtain all required and/or statutory approvals that relate to that submission including, where appropriate, the approval of the concerned government authorities and municipalities and utility undertakings, and demonstrate that all required approvals have been obtained.
- (3) All submissions for Temporary and Permanent Works shall be accompanied by two original copies of a 'Design Certificate' as set out in Part 2 "Employer's Requirement, Section V, Volume 6, Appendix 8- Design Certificate" hereto and signed by the Contractor and the Designer.
- (4) As-built Drawings and documents shall be submitted to the Engineer for approval within the time period as mutually agreed by the Engineer and the Contractor.

12.0 CALCULATIONS

- (1) Comprehensive set of calculations relevant to the Construction proposals, Definitive Design and Good for Construction Drawings and any Design change shall be submitted for review with the respective Design packages in soft as well as hard copies.
- (2) The Engineer may require the submission of applicable software including in house software programmes/ worksheets developed by the Contractor, computer input and 6 programme logic for its review prior to the acceptance of the computer output.

- (3) Calculations to be included as part of the submission herein shall comprise the up-to date calculations in respect of the Definitive Design, the Good for Construction Drawings and such further calculations which the Contractor has prepared during the production of Working Drawings.

13.0 DOCUMENT REQUIREMENTS

- (1) Drawings shall be prepared on CAD to the standard sizes as prevalent on Indian Railways
- (2) All submissions shall be made to the Engineer's requirement in a format reviewed without objection by the Engineer in accordance with the requirements in the Contract;
- (3) The titles & numbering scale of drawings shall be as per Indian Railway Works Manual (IRWM) as well as above CAD standards to be decided mutually by the Contractor and the Engineer.
- (4) Plans of Continuously Welded Rails shall be prepared as per IR's Manual of Instructions on LWR (Latest revision).
- (5) The Contractor shall submit 2 hard copies and a soft copy of the Definitive Design and drawings including calculations for review by the Engineer. After receipt of the Notice from the Engineer, the Contractor shall submit 3 hard copies and a soft copy of the final Design and drawings for the use of the Engineer.
- (6) The approval of drawings shall however be certified on the hard copy only.

4.0 GENERAL DESIGN CRITERIA

14.1 DURABILITY AND MAINTENANCE

The Permanent Works shall be designed and constructed as per the relevant codal provision in a serviceable condition as described in the Design Criteria and standards contained in the technical specifications to minimise the cost of operation and maintenance whilst not compromising safety or the performance characteristics of the railway.

14.2 OPERATIONAL REQUIREMENTS

- (1) The Permanent Works shall be designed to permit the railway to operate satisfactorily at a maximum design speed of 100Km/h for freight trains. The track shall be constructed for an axle load of 25 tonnes.
- (2) The Contractor's attention is directed to requirements concerning the role of the Commissioner of Railway Safety (CRS) as mentioned in para 14.1 (Construction, Testing & Commissioning) of Section V, Volume 5, Part 2 "Employer's Requirement". Sanction of CRS will also be required in terms of Chapter XIII of IRPWM.
- (3) It is a requirement that the Indian Railway (IR) remains operational during the construction phase.

14.3 RESPONSIBILITY FOR THE TRACK & TRACK RELATED WORKS

- (1) The Contractor shall be responsible for detailed design, layout, construction, manufacture, supply, installation, testing and commissioning of the track & track related works wherever applicable under this Contract.

14.4 QUALITY CONTROL

- (1) Quality control aspects shall be kept in mind during the Design/construction and testing & commissioning phase, requirement for which has been specified at appropriate places in the bidding document as well as in Part 2 "Employer's Requirement, Section V, Volume 6, Appendix 5 Quality Assurance". It shall be the overall responsibilities of the Contractor to ensure deliverables of quality products at all times conforming to the provisions mentioned in this bidding document.

15.0 TRACK DESIGN CRITERIA

15.1 TRACK DESIGN

15.1.1 General

- (1) The track layout shall be based on the provisions contained in Indian Railways Permanent Way Manual, Track Manual & relevant IRS specifications with latest amendments/corrections upto the base date.
- (2) The Contractor while designing the Track alignment should give due cognizance to the DFC alignment given in the Bid.
- (3) The final designs of the track layouts, including horizontal and vertical alignment, station yard layout, LWR/CWR plans, etc. shall be agreed by the Engineer before execution of track works.
- (4) Interlocking of switches, earthing and bonding of electrical circuit arrangements in the track will be done by the Systems Contractor. The Contractor shall de necessary interfacing with the Systems Contractor so that there is no delay/ holdup.

(5) General Design parameters are NO Criteria as under:

No.	Criteria	Dimension
1.	Gauge	1676 mm
2.	Maximum axle load loaded condition	25 Tonne
3.	Maximum Speed	100 kmph
4.	Grade Compensation for curves	1 in 200 (compensated)
5.	Grade Compensation for curves	@ 0.04% per degree of curve
6.	Maximum gradient in station yard	1 in 1200 in exception case 1 in 400
7.	Minimum Radius of Horizontal Curve	Upto 700m (2.5 Degree)
8.	Vertical Curve	0.4%

9.	Minimum radius of vertical curve	4000m
10.	Rails	UIC 60 Kg/mts conforming to IRS-T-12-2009
11.	Turnouts	1 in 12
12.	Minimum Ballast Cushion	350 mm Cushion on M/L, 250 mm Cushion on other lines
13.	Standard length of rail	13/26m
14.	Switches	1 in 12 thick web switches
15.	Crossing	1 in 12 Weldable CMS
16.	Maximum Cant	165mm
17.	Maximum cant deficiency	75 mm
18.	Maximum cant excess	65 mm
19.	Welding of Rails	Flash Butt joints
20.	Cant on turnout	1 in 20

15.1.2 Track Gauge

- (1) The nominal DFC track gauge shall be 1676 mm measured at 14 mm below the top of rail.

15.1.3 Horizontal Curves

- (1) Horizontal curve in the DFCC tracks shall be circular with transition curves at either end of such circular curve.
- (2) The horizontal curve radius is measured on the track centre line between the two rails. The DFCC tracks will have concentric curves unless otherwise approved by the Engineer.
- (3) Curves shall be designed for average running speed of 75 km/h with minimum limit cant deficiency.
- (4) The normal minimum horizontal curve radius will be 700m (2.5 degree).
- (5) On entry to the existing IR operational system curvature may be up to 438m (4 degree).
- (6) The maximum actual cant shall be limited to 165mm.
- (7) The maximum cant deficiency shall be 75mm and cant excess shall be 65mm.
- (8) All curves on mainlines shall be provided with transition curves to the straight which shall take the form of a cubic parabola with the equation as $y=x^3/6RL$

- (9) The minimum length of the transition shall be the maximum length obtained from the following equation:

$$\begin{aligned} L &= 0.008 * Ca * V \\ &= 0.008 * Cd * V \\ &= 0.72 Ca \end{aligned}$$

Where, Ca & Cd=Value of actual cant & cant deficiency respectively in mm

V=Maximum permissible speed in km/h

- (10) For the design of transition length, the value of Ca shall be calculated for speed of 100 km/h with Cd 0, and V shall be taken as 100km/h, where it is not practical to use 100km/h a reduced speed may be utilised with the approval of the Engineer,
- (11) Transitions between reverse curves may adjoin each other if the rate of change of cant and the cant gradient are constant through both transitions.
- (12) Horizontal curves and transition length shall be avoided at turnout portion locations.

15.1.4 Gradients

- (1) The ruling gradient of the section on the main line shall be 0.5% (1 in 200). Contractor shall select sectional gradients for the alignment as per this ruling gradient so as to enable smooth train operations taking into consideration the required optimum attractive effort, curvature and other obligatory parameters.
- (2) The gradients shall be compensated for curves @ 0.04% per degree of curve and the maximum gradient shall not be steeper than the ruling gradient of the section.
- (3) The maximum gradient at stations yards shall not exceed 1 in 1200 (approx . 0.083%) and 1 in 4000 (0.25%) in exceptional cases, requiring specific approval of the Engineer.
- (4) Change of gradient shall not be done at turnout location.

15.1.5 Vertical curves

- (1) A vertical curve is to be provided when the algebraic difference in change of gradient at the locations is more than 0.4%.
- (2) Minimum radius of vertical curve shall be 4000m.

15.1.6 Formation levels

- (1) The formation levels at various chainages along the alignment are indicated in the project sheets for the guidance of the Bidders.

15.1.7 Track Layouts in DFC Station Yards

- (1) Track layout in DFC station yards should be as per the approved layout plans given in Part 4 "Site Data; Reference Document; of Bidding Document".
- (2) Minor modification if required in the approved yard plans will have to be done by the Contractor with the approval of Engineer.

15.2 RAILS

13/26m (Length is indicative) UIC 60 Kg long Rails (IRS T 12 – 2009) will be supplied to the contractor ex. Works Bhilai by the the employer. Contractor while receiving the rails on behalf of employer at Bhilai must ensure the following:

Description	Parameters
Rail Section profile	As per Appendix –II of IRS T 12-2009 for UIC 60 kg/m
Class of Rail	As per purchase order by DFCCIL
Rail Ends	Undrilled
Colour Code	As per Appendix IV of IRS T 12-009
Length of Rail	13/26m

15.2.1 Laying of P-Way

The contractor has to do laying and linking of track as per method detailed in as defined in para 4.2.3 of Part-II , Chapter-I.

15.2.2 Welding of Rails

- (1) The rail panels, used for CWR track shall be of length not less than 130m. Inexceptional cases, panels of less than 130 metre can be permitted with the approval of Engineer. All rails joints shall be welded in stationary or moving construction depot or manufacturing unit using Flash Butt welding process.
- (2) The rails panels of length 130m or more shall be welded together in-situ to make LWRICWR panels as per the approved plans using mobile flash butt welding plant. In special locations where the use of mobile flash butt welding plant is not practicable, Alumino Thermic (AT) weld process may be used, with prior permission of the Engineer. The detailed process of all rail welding shall be submitted along with acceptance tests & acceptance criteria by the Contractor for acceptance for approval by the Engineer. The design concepts & performance criteria for Flash Butt welding of rail joints are given in detail in Indian Railway's Manual for Flash Butt Welding of Rails-2004 (herein after referred as FBW Manual)
- (3) The use of rails with holes shall not be allowed unless specifically permitted by the Engineer. Wherever holes in the rails are made, they shall be done by Machines. (4) Drilling of holes, insulation of track, ROB/ FOB etc. will be required for earthing and bonding will be done by the System Contractor at appropriate locations with its own resources. Contractor shall provide necessary interfacing arrangements in this regard.

15.3 CONTINUOUSLY WELDED RAIL TRACK

15.3.1 General

- (1) Rail panels, after laying in track, shall be welded to make Continuously Welded Rail (CWR) track for as much length as possible, for which the Contractor shall prepare the CWR plans for the approval of the Engineer in accordance with the design principles/provisions contained in LWR Manual.

15.3.2 Rail Laying Temperature

- (1) The project length falls in the temperature zone as specified in LWR manual.
- (2) The temperature range for the fastening of CWR rail to the sleepers without the destressing operation shall be as per the provisions of LWR manual.
- (3) CWR track lengths installed outside this temperature range shall be destressed before the laying and final setting of Switch Expansion Joints (SEJ) at the end of breathing length.
- (4) Neutralization of the stresses in the rails during construction shall be carried out as required by the provisions of the LWR Manual.
- (5) The Contractor shall submit detailed process of neutralisation of stresses in the rails during construction ensuring that the rails in track remain distressed in the prescribed temperature range and shall form part of CWR plans submitted by the Contractor.

15.4 TURNOUTS

15.4.1 General

- (1) On the DFCCIL system modern turnouts shall be used with following parameters:
 - (a) Gauge 1676 mm
 - (b) Crossing Angle (on main lines and loop lines) 1 in 12
 - (c) Rail Profile 60 kg (UIC 60 kg/m)
 - (d) Speed potential on the Main Lines 100 km/h
 - (e) Axle Load 25 tonne
 - (f) Canted Points and crossings with Thick web switch and weldable CMS crossing alongwith corresponding modification in PSC turnout sleeper sets.
- (2) The Contractor shall be responsible for the detailed design, manufacturing and assembling of the turnouts suitable for above requirements. Derailing switches shall be provided as per requirements.
- (3) LWR/CWR shall be carried through the turnout assembly, keeping in view the provisions of LWR manual.
- (4) The turnouts shall be suitable for pre-stressed concrete (PSC) bearers/sleepers with fan shaped layouts and shall have provision of cant for the rails, anti-creep fastenings and other relevant fastenings and fixtures.
- (5) The signaling system shall be designed and installed by System Contractor and the Contractor shall be required to interface with appointed System Contractor for all the information/details, pertaining to signaling installations/equipment for the detailed design of turnouts. The turn-outs shall meet with relevant provisions set out in Indian Railways Signal Engineering Manual.
- (6) The Contractor shall procure
 - Turnout sleeper sets from RDSO approved manufacturers
 - by setting up his own plant
 - Switches and Crossings from any source approved by DFCCIL/Engineer provided the equipment/item meets the technical requirements/acceptance criteria.
- (7) Prior to the mass procurement of turnouts, at least one turnout shall be completely preassembled for inspection and clearance by the Engineer.
- (8) All turnouts shall be pre-assembled at a workshop. After these are cleared by the

Engineer these shall be dismantled and carried to site in special vehicles for assembling using cranes.

- (9) All turnouts shall be designed, manufactured and laid at site such as to permit the use of standard on-site tamping and lining equipment for maintenance purposes.
- (10) The Contractor shall be fully responsible for procuring all the raw materials as per laid down performance and design criteria under his own arrangements.
- (11) Most of the IR drawings are for 0 cant turnouts. Contractor shall design and provide 1 in 20 cant turnouts.

15.4.2 Rails for Turnouts

- (1) For manufacturing stock, lead, intermediate sections and closure rails, 90 UTS (UIC 60 kg/m) section with IRS: T-12-2009 specifications of rail shall be used.
- (2) Rails for turnouts will be supplied by the Employers as detailed in Scope of Work.
- (3) For switch rails, thick web section manufactured out of asymmetrical rail section shall be used. Both switch & stock rails shall be of special grade steel (minimum 880 grade as per IRS: T-12-2009) and shall be defect free.
- (4) The rails, for the turnouts, shall have no drilled holes. Drilling of holes will be required for connecting the interlocking arrangements and will be done by the System Contractor at appropriate locations. Contractor shall provide necessary interfacing arrangements in this regard.

15.4.3 Switch Assembly

- (1) Each thick web switch device shall consist of 2 stock rails, one left hand and one right hand and two switch rails, one left hand and one right hand, complete set of PSC sleepers along with all fittings e.g. slide chairs, base plates/special base plates, brackets, rail pads, insulating bushes, washers, all stretcher bars, various blocks, bolts and nuts, any special fittings like spring setting device etc..
- (2) The switch rail shall be one piece without any weld or joint within the switch rail length.
- (3) The end of the asymmetrical switch rail shall be forged to UIC 60 rail profile and shall be suitable for welding or for installation of insulated glued joint.
- (4) The switch shall provide suitable flange way clearance, between the stock rail and switch rail at the end of the head in open position as specified by the Engineer.
- (5) In the cleared position, the switch rail shall house properly against the stock rail and shall bear evenly against all the distance blocks and slide base plates.
- (6) Spring setting device (Contractor may refer IR drawing number RDSO: T-6216, which is under trial).
- (7) The turn-out system shall be designed to prevent the switch lifting.
- (8) Switches made from asymmetrical thick web rails shall be machined carefully to achieve the profile at different locations. Such machining is required to be done by CNC milling machine to achieve correct profile and good quality.
- (9) The manufacturer shall be responsible to make provisions in switches (stock rail and switch rail) for all the required connections for point machine, clamp lock and any other provisions necessary for connecting the signaling equipment duly interfacing with appointed signaling Contractor.

15.4.4 Intermediate Section

- (1) The fittings for intermediate rails shall be validated to ensure full compatibility and effective fixation of the rails with PSC sleepers with the desired toe load as that of the elastic fastenings in the main line.

15.4.5 Crossing Assembly

- (1) Weldable CMS crossings shall be provided on all crossings.
- (2) All crossings on the DFC shall be 1 in 12 weldable Cast Manganese Steel (CMS) {manufactured from Austenitic Manganese steel as defined in IRS: T-29-2000} crossing for the turnouts. Contractor may refer Indian Railways drawing no: DSO/T-6412, which is under trial.
- (3) Check rails in all turnouts shall have the facility for the adjustment of check rail clearances up to 10 mm over and above the initial designed clearance .
- (4) Each check rail end shall be properly flared by machining.
- (5) All the check rail tables shall be higher by 20 mm above running rails.

15.4.6 Elastic Fastenings for turnouts

- (1) Fastenings for the turnouts shall be elastic type and compatible with the main line rail to sleeper fastening system.
- (2) The design of the fastenings for the turnouts shall be suitable for 25 Tonne axle loads and 60kg (UIC 60 kg/m) section of rails laid on PSC sleepers, conforming to Indian Railway standards.

15.4.7 PSC Sleepers for Turnouts

- (1) 1 in 12 Fan shaped PSC sleeper turnout as per RDSO drawing/design shall be used. However, suitable modification in turnout sleeper sets shall be carried out by the contractor so as to provide cant on turnouts. The sleeper set should be procured from RDSO approved manufacturer or by setting up of his own plant as per the existing guidelines of RDSO.

PART-II
CHAPTER-III

General Guidelines for Prestressed Concrete Sleepers

Main Line PSC Sleepers & Sleepers for Special locations like Level Crossing, Bridge Approaches,

Guard Rails, SEJs, Turnouts.

Mainline PSC sleepers as well as Special PSC Sleepers for Level Crossing, Bridge Approaches, guard rails SEJs, Turnout etc. (for 25 T Axle Load) shall be procured by the contractor through any RDSO approved sleeper manufacturer or by setting up of his own plant as per the existing guidelines of RDSO. In case of procurement of sleepers by setting up of the plant by the contractor himself DFCC will assist the contractor for RDSO inspection for clearance of the plant for mass production of sleepers as and if required.

1.0 General

- (1) Mono-block pre-stressed precast concrete sleepers shall be used on all DFC tracks for main lines, loop lines, sidings, conforming to the following general requirements and parameters.
 - a) Gauge (measured at 14 mm from the top of the rail) 1676 mm
 - b) Maximum speed of trains 100 km/h
 - c) Maximum Axle Load 25.0 tonnes
 - d) The track shall be track circuited for which adequate electrical resistance as stated in IRS:T-39-1995 required
 - e) Type of traction 2 x 25 KV electric
 - f) Rail section to be catered for is 60 kg/m (UIC 60 kg/m)
 - g) Sleeper Density in main lines, to be 1660 per km with 1540 per km in loop lines and other yard lines.
 - h) ERC MK-V Fastening (rail to sleeper) to be used.
 - i) Ballast cushion below bottom of sleeper is to be a minimum of 350mm on main lines and 250mm in other lines in the yard lines. Slope of ballast profile below the sleeper shall be taken as H:V = 1.5:1

2.0 Design Requirements

- (1) For the design and manufacture of main line sleepers Contractor should refer to Drawing no T-7008.
- (2) Design parameters, Design Qualification Test, Manufacture of PSC Sleeper, Manufacturing tolerance and type of Input materials (concrete, cement, steel) - These shall be as per IRS specification T-39/1985 with latest amendments.

3.0 RAIL TO SLEEPER ELASTIC FASTENING SYSTEM

- (1) All ballasted tracks, laid on PSC sleepers shall be equipped with self tensioning elastic fastening system (ERC MK-V) on 10mm thick rubber pad with GFN liners should be used.
- (2) ERC MK -V, 10mm thick composite Rubber Pad and GFN liners for 1676 gauge should be procured through RDSO approved manufacturers.

4.0 INSULATED GLUED JOINTS (RDSO T-5483)

- (1) No insulated glued joints will be provided on main line except in turn out zone. Efforts will be made to avoid the use of glued joints in turnout zone. In case these are required then all Insulated Glued Joints (IGJs) shall be factory manufactured to be compatible with the UIC 60 Kg rail of 880 grade as per, IRS T-12-2009.
- (2) The Glued Insulated Rail Joints shall comply with the requirements of RDSO's Manual for Glued Insulated Rail Joints of 1998 with latest amendments upto the base date, or equivalent International Standard or as agreed by the Employer.
- (3) Contractor shall procure the insulated glued joint (RDSO T-5483) from the RDSO approved manufacturer.
- (4) J Clips or any other clip approved by RDSO should be provided at all insulated glued joint locations to fasten the rails with sleepers.

5.0 IMPROVED SWITCH EXPANSION JOINTS (RDSO T-6922 or T-6902)

- (1) Contractor should procure Improved Switch Expansion Joints (SEJs) for 60kg rail section (RDSO T-6922 or T-6902) from RDSO approved manufacturers and lay it in the track alongwith full compliments of Sleepers, fitting, fastening and fixtures with the approval of Engineer/Employer.

6.0 BALLAST

- (1) DFCCIL has procured / is procuring the ballast all along the sections. Major quantity of ballast has been procured / is being procured at suitable locations along the alignment.
- (2) Approximately up to 200 mm thick carpet of ballast has been spread and compacted along the main line track alignment and 150 mm at loop lines in yards.
- (3) The ballast procured / being procured will be available in stacks all along the alignment at some locations which has to be utilised by the contractor for spreading, packing and boxing of track.
- (4) The spreading of ballast on track for packing and boxing may be undertaken by the contractor either through hoppers or ballast trolleys.
- (5) Minimum ballast cushion and ballast profile below the bottom of sleeper on main lines and on other lines in the yard shall be as indicated in clause 2.5.1(1) (i) above.

7.0 FISH PLATES AND FISH BOLTS

- (1) At Fish plated joints, Fish plates and fish bolts for UIC 60 Kg rail shall be of the 6 bolt type manufactured Contractor may refer IR drawing Drg. No.T-5916 & connected technical specification IRS: T-1 of 1966.
- (2) Contractor should procure fish plates and fish bolts from RDSO approved manufacturer.
- (3) ERC "J" Clip and matching GFN liners to be provided for Fish plated joints and glued

8.0 Guard Rails :

Contractor has to provide 60 Kg Guard Rails on PSC sleepers at all minor bridges having linear length >9.15mtr, at all major bridges & locations of Road Over bridge as per IR P-Way manual and Bridge manual.

9.0 TRACK STRUCTURE AND ROAD SURFACE AT LEVEL CROSSINGS

- (1) Ballasted track structure will be continued through the level crossing.
- (2) The concrete sleepers at level crossing will have the same design as provided on their approaches except that the elastic fastening system will be modified to incorporate the check rails.
- (3) The level crossing will have a track friendly maintenance free road surface. Road

surface may consist of Cement Concrete Blocks which can be easily removed manually to enable continuous working of track maintenance machine through the level crossing.

10.0 FENCING

- (1) Fencing to be provided as defined in the scope of work.
- (2) Fencing can be designed as RCC/ Pre-cast or Metal grill of suitable strength having 1.8m height.
- (3) All fencing construction shall comply with the applicable Indian building standards and codes.
- (4) The design shall be capable of allowing the construction to be carried out in the minimum time possible and to the required quality standards.
- (5) The fencing shall be designed to withstand severe weather conditions of exposure as per the Indian building codes.
- (6) The architecture and profile of all fencing shall conform to the local buildings, aesthetics, architecture and environment.
- (7) While working in vulnerable locations from safety and security point of view like in close proximity of the running track of Indian Railways the Contractor shall construct temporary fencing, and shall follow the provisions of para 12 of Part 2 Section V, "Employer's Requirement, Volume 5".
- (8) Contractor shall submit plans of all types of fencing to the Engineer for prior agreement.

11.0 LEVEL CROSSING DESIGN CRITERIA

- (1) At all level crossing locations falling on the DFC alignment Contractor has to provide:
 - i) Track structure along with check rails, blocks, brackets, etc. as per IRPWM provisions/bidding document.
 - ii) CC blocks for smoothening the road surface over level crossings.
 - iii) Suitably regrade the roads on approaches only on DFC side if required as per provisions of IRPWM.
 - iv) Suitably regrade the road surface between DFC and IR track.
- (2) The plan including methodology of work on IR level crossings shall be approved by the Engineer before commencement of works at site.
- (3) Works being done beyond 6 meters from centre of IR track. No special precautions are needed.

PART-II
CHAPTER-IV

GENERAL GUIDELINES FOR CONSTRUCTION OF TRACK

1.0 GENERAL

- (1) The Contractor shall co-ordinate during the planning and execution of works with designated Contractors for other related activities e.g. signals, overhead electric traction, power supply distribution, communication, SCADA etc. for construction of the complete system of Dedicated Freight Corridor.
- (2) The installation of all machinery and equipment shall be undertaken at all times by suitably trained and competent employees of the Contractor and to the satisfaction of the Engineer.
- (3) The Contractor shall, prior to starting any installation and construction work, identify any possible hazards, and implement measures of eliminating and/or controlling such potential hazards, in line with safe working practices.
- (4) The Track construction work pertaining to this contract shall include, but not be limited to the following:
 - a) Survey on site, review and confirm the technical requirements shown in this contract and the Reference Drawings.
 - b) Finalization of the construction and installation program.
 - c) Production of the calculation sheets and construction drawings for Site works and installation.
 - d) Construction and Installation in accordance with the finalized construction Drawings.
 - e) Co-ordination with various designated contractors.
 - f) Obtaining clearances from various stakeholders and authorities.
 - g) Submission of the construction and installation reports and records.
 - h) Testing and commissioning as per finalized protocol and programme.
 - i) Production of As Built Drawings, documents, calculation sheets and records.

1.1 SURVEY ON SITE

- (1) The formation alignment has been staked at site and the alignment data, as available with Employer, shall be made available to the Contractor as guidance.
- (2) The setting out of the correct alignment for track construction shall however, be the responsibility of the Contractor.
- (3) As such the alignment and related data, as provided by Employer to the Contractor is to be checked and verified.
- (4) The Engineer may carry out random checks to verify the accuracy of the setting out and Contractor's compliance of the completed works with given alignment and the requirements, however, full responsibility lies with the Contractor for the accuracy of line and level of the tracks.
- (5) It shall be Contractor's responsibility to protect and preserve the integrity of the all control markers, grid points, setting out points etc.
- (6) The Contractor shall establish physically on site such setting out points that may be grid or offset points to be used as the reference system for the track work.
- (7) At each site, the position of the site main reference setting out points shall be maintained throughout construction period.
- (8) The track shall be sited on the basis of alignment given in the Bid document.

- (9) The track siting marks corresponding to both the theoretical centre of the track and to the theoretical level of the track running surface, as defined by the relevant project sheets relating to track layout shall be marked in the straight portion and at the beginning and end of each circular curve, transition curve and vertical curve both in the longitudinal and cross directions.
- (10) The said markings shall be put in:
- a. - In straight sections: every 200-m,
 - b. - In curved sections: every 50-m.
- (11) The track siting marks for the centre of the track shall be shown by angle plates embedded in
concrete foundation or plates or nails sealed on the bridge spans, on the upper surface of the
slabs as approved by Engineer.
- (12) The inner rail for curve and any rail for straight shall first be set out in its absolute position from setting out points using co-ordinates computed from the alignment geometry, the elevation of the rail shall be checked using a level, the other rail shall be set correctly relative to the first rail.

1.2 TEMPORARY WORKS

- (1) Any temporary arrangements and works, as required to carry out the track work such as temporary connection and access tracks from IR's system, temporary track depots to handle and stack the track materials, temporary stores, offices, fencings etc. shall be done by the Contractor at his own cost.
- (2) The programme and scheme and design of all such temporary works with full justification of the requirement and the approximate period for which these will be needed, shall be submitted to the Engineer for prior approval.
- (3) Construction Depot
- a) The Contractor will be required to establish temporary construction depot at the site of works
where track materials and equipments etc. could be stored for the construction purposes as per requirements.
 - b) Long rail panels of 130/260m or more length could be brought or formed after flash butt welding
of smaller panels, handled and stacked.
 - c) In case spare land is available with the Employer the same can be handed over to the Contractor
free of cost for the purpose of establishing temporary construction depot(s). However, whenever
Employer requires this portion of land back, the same shall be handed over to the Employer with
a month's notice at no extra cost/compensation to the Contractor.
 - d) For this purpose, the Contractor shall be required to lay temporary track, access road other
facilities etc. along with the connection with existing connection, if required, at his own cost.
Employer shall facilitate the approval from Indian Railways for such connection.
- (4) All temporary works shall be removed on completion of permanent works, or as directed by the Engineer.

1.3 CONSTRUCTION METHODOLOGY

1.3.1 General

- (1) The Contractor shall plan and work out the methodology of track construction in various stages as per the requirements detailed in the following paragraphs in consultation and approval of the Engineer taking into account of the Contractor's coordination and integration responsibilities with the interfacing contractors.
- (2) The track construction shall be done by using track laying method specified in the bidding document. This shall mean laying of rail panels of 130 meters or more, welded by flash butt welding plant under controlled conditions in depots (temporary/movable). Track laying at site shall be done as per provisions given in Volume 1 Section V Employer's Requirements (Scope of Works).

1.3.2 Construction of Ballast Bed

Ballast Bed has already been laid/being laid by the employer on the prepared formation and the support structure like bridge deck slabs. Contractor shall further compact this layer by a minimum of one pass of smooth vibrating roller.

1.3.3 Handling and Spreading of Rails

- (1) The Contractor will be responsible for transportation of the rail panels to its site through suitable mechanical means and shall procure on his own the required equipments, machinery etc for this purpose.
- (2) The panels of rail shall be handled during transportation as well as at the construction site (temporary/movable construction depot as required) in a manner so as to avoid any defects like dents / grip marks, notching or cuts, permanent bends, damage at the ends etc.
- (3) The rail handling during flash butt welding of rail joint, loading and unloading on/to the special rail carriers/lorry/trolley shall be fully by mechanical means.
- (4) Spreading of the rails shall be with suitable mechanical means on rollers at site along the alignment so as to avoid any damage to the rail panels.

1.3.4 Rail Cutting and Drilling

- (1) The cutting of rails shall be bare minimum and shall be carried out under the supervision of Engineer. Rails shall be cut by using abrasive rail cutting machine only.
- (2) The drilling of holes in rails shall be bare minimum and shall be carried out under the supervision of Engineer. Holes shall be drilled by Machines.
- (3) Any holes if required for signal and traction bonds shall be performed by designated contractors but with prior approval of the Engineer.

1.3.5 Handling and Laying of PSC Sleepers

- (1) The PSC sleepers duly inspected by the Engineer's inspector, shall be carefully handled by mechanical means and transported to the site avoiding any damage to the sleepers by way of any cracks, chipping of concrete, dents over the concrete surface etc.
- (2) The PSC sleepers shall be laid over the prepared ballast bed evenly at the design spacing.

1.3.6 Threading of Rails to Sleepers

- (1) The rail panels preferably 130 metre shall be placed on sleepers with the help of suitable mechanical equipments with the help of rollers/suitable devices placed at appropriate spacing and fixed on sleepers with the help of rail threaders or suitable mechanical device etc.

1.3.7 Fixing Elastic Fastening System

- (1) After threading of rails, elastic fastening system consisting of rubber pad, rail liner and elastic clip shall be fixed systematically by the mechanized/manual process with greasing of inserts eye hole and ERC with approved grade of grease.

1.3.8 Top Ballasting, Tamping and Lining

- (1) Prior to the placing of top ballast the track shall be marked in preparation for tamping and lining operations with the following information:
 - a) All horizontal and vertical tangent points
 - b) Transition curve details
 - c) Circular curve details
 - d) Cant details
 - e) Chainages
- (2) Contractor has to lay and link the track and make it fit for 30kmph by suitably packing it with hand held tampers/off track tampers.
- (3) The ballasting of cribs and shoulders shall be done before tamping of newly laid tracks. Once the top ballast is adequately regulated, the track shall be lifted, leveled and aligned as required using on-track tamping / lining machines as provided by the Employer.
- (4) The top ballasting, regulating, tamping and lining shall be repeated in stages of maximum 50 mm lift until the track is at the designed horizontal and vertical alignment and desired ballast cushion below the sleeper with the desired profile as specified in para 2.5.1(1) (i) of Volume 4; Part 2 is achieved.
- (5) Concurrent with the tamping and lining, the ballast shoulders and the sleeper cribs shall be compacted with suitable equipment as approved by the Engineer.

Note : For the purpose of commissioning the track, Employer will provide Continuous Tampers, UNIMAT and Dynamic Track Stabilizer for Tamping the main line and turnouts. The consumable of the Tamping machines like Diesel & lubricants, welding of tamping tools to be used in the machines shall be provided by the Contractor. Contractor has to provide sufficient man and machinery to undertake :

- Pre Tamping attention of track
- During Tamping attention of track
- Post Tamping attention of track.

Requirement of Track machine shall be given by the Contractor well in advance to the Engineer.

1.3.9 Welding and Destressing

- (1) The welding of rail joints to convert the track into LWR/CWR shall be done in accordance with the provisions of Manual, Bid Documents followed by de-stressing where needed as per the temperature records maintained at site at the time of threading.

1.3.10 Installation of Turnouts, Derailing Switches and Switch Expansion Joints

- (1) The assembly sequence of turnouts, derailing switches and rail expansion joints shall be submitted for Engineer's approval as part of the overall method statement for preassembly, handling, storage, transportation, unloading and installation
- (2) The Contractor shall provide all gauges and measuring equipments and assistance required for complete check of preassembled lay-outs.
- (3) All turn-outs and derailing switches laid in track shall comply with the relevant provisions given in Para 12.40 of Indian Railway Signal Engineering Manual. The Contractor shall interface and ensure the designed switch opening while fixation of the first stretcher bar by designated signaling contractor.
- (4) The gap at SEJs shall be adjusted after necessary destressing of LWR/CWR on either side and as per the provisions in IR manual.

1.3.11 Installation of Glued Insulated Rail joints

Normally glued insulated rail joints shall not be required over the project due to jointless technology being adopted for track occupancy detection arrangement. However, wherever these are required following stipulations shall govern:-

- (1) The glued insulated rail joints, manufactured in the plant as per approved design specifications shall be laid in track at predetermined locations in consultation with designated signaling contractor and as approved by the Engineer in Working Drawings.
- (2) Except in the case of Glued Insulated rail joints in the turn-out zone, its positioning with respect to the approach shall be such as to keep a minimum distance of 6.00m from an existing weld in the rail.

1.3.12 Connection to Existing IR Track

- (1) Contractor shall do necessary connection of DFC track to existing IR track as per the approved yard plan after taking specific written approval of Engineer so as not to cause unsafe working in the contiguous area

1.3.13 Track at Special Locations

- (1) Provisions of IRPWM and LWR Manual, shall be followed while laying track at special locations like sand humps in yard, bridge approaches, approaches to yards, SEJ locations, level crossings, Insulated glued joints in LWR/CWR portions etc.

1.3.14 TRACK DRAINAGE

- (1) The drainage arrangement has been provided by the Employer.

1.3.15 FENCING

- (1) The fencing shall be constructed as per the agreed Drawings and methodology. .

1.3.16 DRESSING OF BALLAST AND CLEANING OF TRACKS

- (1) On completing the track works and after making up the desired track geometry up to laid down standards, the ballast in track shall be properly dressed up in the sleeper cribs and in shoulders as per the IRS standards for LWR/CWR track.
- (2) The track and cess shall be thoroughly cleaned to a standard acceptable to the Engineer, immediately after installation and as required thereafter to maintain the standard until the arrangement of service trials.
- (3) All side drains along track for drainage purpose shall be cleaned off the debris as required etc. so as to provide clear water-way.

1.3.17 PERMANENT MARKERS

- (1) Upon completion of the track installation following permanent markers shall be provided as per IRPWM and prior approval by the Engineer of their information, plates/boards, colour scheme and fixation arrangement :
 - a) Curve reference markers;
 - b) LWR/CWR reference markers;
 - c) SEJ markers including its reference markers;
 - d) Fouling point markers;
 - e) Turnout markers;
 - f) Level crossing markers;
 - g) Fog signal locations;
 - h) Creep posts at SRJ of Turnouts;
 - i) All markers required to be painted on rails for curves, turnouts and SEJs etc. shall be paint marked by the Contractor as per IRPWM.

2.0 INSPECTION and ACCEPTANCE

2.1 General

- (1) A thorough track inspection shall be carried out jointly by the Contractor and the Engineer prior to acceptance of the Works.
- (2) The proforma for the measurement of the track parameters to be submitted by the Contractor shall be as per the provisions of IRPWM in this regard.
- (3) The proforma shall show the design requirement against actual and the differences.
- (4) Other than meeting the mandatory requirements of track parameters in floating condition of track stipulated vide para 13.9.3, the track shall also fulfill the requirements of riding quality stipulated vide para 14.7 below, before declaring as acceptable.

2.2 Tests

- (1) The Contractor shall propose the various forms of test and obtain the approval of the Engineer prior to the commencement of the testing, keeping in view the provisions of IRPWM in this regard.

2.3 Track Tolerances

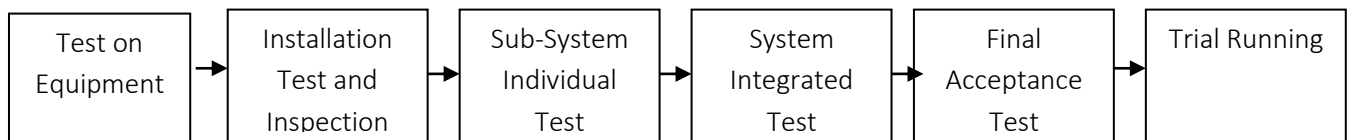
- (1) The track parameters for the completed track works shall be measured by the Contractor and confirmed by the Engineer in a format acceptable to the Engineer. Track tolerances as indicated in point (3) below are for measurements taken in floating condition of the track.
- (2) All the track measurement shall be taken in the unloaded condition by methods and equipment approved by the Engineer prior to the commencement of the measurements.
- (3) The dimensional tolerance shall be as per the provision of IRPWM for new Track.
- (4) The measurement of the track shall be done as per the provision of IRPWM.
- (5) No individual component shall exceed the track tolerance limit as specified in IRPWM.
- (6) For the purpose of gauge, the parameter shall be with reference to gauge of 1676mm instead of 1673mm.

PART-II
CHAPTER-V

GENERAL GUIDELINES REGARDING TESTING AND COMMISSIONING OF TRACK

14.1 GENERAL

- (1) The Contractor shall provide and perform all forms of testing procedures applicable to the Works and various components including all necessary site acceptance tests required therein and for the interfacing of the Works with the other Contract works. Until the time the Works are taken over by the Employer, Contractor shall maintain the same in a manner so as to continuously meet the acceptance criteria for all aspects, as per the requirements mentioned in the Employer's Requirement, Part 2 of Bidding Documents. Contractor shall make a consolidated list of all the tests required for Testing and commissioning alongwith the testing procedures and applicable codes/ manuals and submit the same to the Engineer for enabling a joint program of testing.
- (2) The commissioning activity shall include a period of Integrated Testing of System followed by a period of trial running attended by the CRS or other authorized official. Accordingly a typical test sequence may be as shown below:-



- (3) All testing procedures shall be submitted at least twenty eight (28) days prior to conducting any test. The testing procedures shall show unambiguously the extent of testing covered by each submission, the method of testing, the acceptance criteria, the relevant drawing (or modification) status and the location.
- (4) The Engineer, the Employer's Personnel and authorized agencies shall at all reasonable times:
 - (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
 - (b) During production, manufacture and construction (at the Site and elsewhere), be entitled to check the progress of manufacture of Plant and production and manufacture of Materials.
- (5) Ample time shall be allowed within the testing programmes for necessary alterations to equipment, systems and designs to be undertaken, engagement of Engineer, together with re-testing prior to final commissioning.
- (6) All costs associated with the testing as above shall be borne by the Contractor, unless otherwise specified, including the services of any specialised personnel or independent assessors concerned to the work done by him. The Contractor shall also bear any expenses incurred due to resetting caused by defects or failure of equipment to meet the requirements of the Contract in the first instance for the works done by him.
- (7) Unless agreed in writing by the Engineer, the personnel engaged on testing shall be independent of those directly engaged in the design or installation of the same equipment.
- (8) All testing equipment shall carry an appropriate and valid calibration labels.
- (9) If any defect or damage is one requiring immediate attention from a safety, environment or operational aspect, the Engineer has the authority to proceed with the rectification in any manner suitable and deduct the cost from the next due interim payment.

14.2 TESTING

- (1) The Contractor shall be responsible for all on-site and off-site testing and for all in-situ testing.
- (2) In-situ tests shall be done in the presence of the Engineer.
- (3) Equipment, apparatus and materials for in-situ tests carried out by the Contractor shall be provided by the Contractor.
- (4) The equipment and apparatus shall be maintained by the Contractor and shall be calibrated before the testing starts and at regular intervals as permitted by the Engineer.
- (5) The equipment, apparatus and materials for in-the situ tests shall be removed by the Contractor as soon as practicable after the testing is complete.
- (6) Attendance on tests, including that by the Engineer, Contractor and Designer, shall be as laid down in the Quality Assurance procedures.

14.3 RECORDS OF TESTS

- (1) Records of in-situ tests carried out by the Contractor shall be kept by the Contractor on the Site and a report shall be submitted to the Engineer within seven (7) days, or such other time stated in the Contract or in the Quality Assurance Programme, after completion of each test.
- (2) Contractor shall produce the original copies of all test certificates / inspection certificates carried out by RDSO/RITES/Zonal Railways for various p-way materials procured from RDSO approved manufacturers. However, the inspection charges will be reimbursed by the Employer/DFCCIL.
- (3) Record of such tests should be signed by the Contractors Authorised Representative , authorized of the Contractor.

14.4 POST INSTALLATION TESTS (ON SITE)

- (1) During and on completion of the installation, the Contractor shall undertake testing of all points and crossings, glued joints, derailing switches, switch expansion joints, buffer stops and other devices, in a progressive sequence and in accordance with the overall testing programme.
- (2) These tests shall culminate in functional tests to verify the correct operation of full apparatus and, where appropriate, correct response to the respective control and physical operation of the device/ components.

14.5 ACCEPTANCE TESTS

- (1) The Contractor shall prepare and organise a comprehensive programme of acceptance tests to demonstrate to the Engineer that all systems, sub-systems and apparatus defined under the Contract meet the specified performance requirements in all respects.
- (2) These tests shall be conducted by the Contractor in the presence of the Engineer.

14.6 INTEGRATED SYSTEM TESTS

- (1) The Contractor shall submit to the Engineer requirements and procedures, in respect of the Contractor's scope of work, for Integrated System Tests in conjunction with the interface contractors to demonstrate that the complete system provided under the Contract is fully operational and meets the specified performance criteria.
- (2) The conducting of these Integrated System Tests, by the Contractor and the interface contractors, shall include a period of test running. Necessary interfacing required with the other contractors shall be done by the Contractor .
- (3) Tests on Completion shall also include Integrated Testing. The Contractor shall, following satisfactory completion of tests on his Works, equipment, sub-systems or system, perform, at the direction of the Engineer, programme of tests to verify and confirm the compatibility and complete performance of his Works, equipment,

subsystems or system with the Works, equipment, sub-systems or system provided by others.

- (4) The results of the Integrated Testing and Commissioning shall be compiled and evaluated by the Engineer and the Contractor.
- (5) If the Works, or a part thereof, or a section, fail to pass the Integrated Testing and Commissioning, the Engineer shall require such failed tests, to be repeated under the same terms and conditions. If such failure and retesting result from a default of the Contractor and cause the Employer to incur additional costs, the same shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any money due, or to become due, to the Contractor.
- (6) If the Works, or a part thereof, or a Section, fail to pass Integrated Testing and Commissioning and the Contractor in consequence proposes to make any adjustment or modification to the Works or a part thereof, or a section, the Engineer may instruct the Contractor to carry out such adjustment or modification, at his own cost or to other contractor(s) if the item(s) of Works is attributable to other contractor(s) and to satisfy the requirements of Integrated Testing and Commissioning within such time as the Engineer may deem to be reasonable.
- (7) The Contractor along with others shall carry out all statutory tests and trials, under the supervision of the Engineer, necessary for obtaining sanction of the competent authority, if required, for opening the railway system.
- (8) During integrated testing, the Contractor shall be required to carry out coordination with all interfacing contractors and agencies.

14.7 TEST ON COMPLETION

- (1) Following satisfactory completion of the acceptance tests and the Integrated System Test the Engineer will commence an extended period of trial running to prove all technical systems, to the satisfaction of the CRS or any other authorized official, who will check the system from safety point of view and to allow all technical systems to settle and to train staff in working procedures.
- (2) Contractor shall allow for attendance in respect of the Contractor's scope of work over the whole of this period, which shall include repair/ correction activities and also further opportunity for technical staff training.

15.0 RECORDS

15.1 DRAWINGS PRODUCED BY THE CONTRACTOR

- (1) Drawings produced by the Contractor including Drawings of Site layouts, Temporary Works, etc. for submission to the Engineer shall generally be to ISO A1 size.
- (2) They shall display a title block with all the relevant information.
- (3) The number of copies to be submitted to the Engineer shall be as stated in the Contract, or as required by Engineer.
- (4) The Contractor shall provide 3 sets of As Built Drawings along with read only electronic version of the same on CD/DVD to the Engineer.

15.2 PROGRESS PHOTOGRAPHS AND VIDEOGRAPHY

- (1) The Contractor shall provide monthly progress photographs which have been properly recorded to show the progress of the works to the Engineer. All important events shall be photographed.
- (2) Two sets of photographs shall be provided on CD ROM format with two sets of colour prints (minimum 20 nos.) of 175 mm x 125 mm size in albums duly labeled.
- (3) The Contractor shall mount each set of each month's progress photographs in a separate album of a type to which the Engineer has given his consent, and shall provide for each photograph two typed self-adhesive labels, one of which shall be mounted immediately below the photograph and one on the back of the photograph.

- (4) Each label shall record the location, a brief description of the progress recorded and the date on which the photograph was taken.
- (5) All photographs shall be taken by a skilled photographer.
- (6) Photo processing shall be carried out by a competent processing firm to the satisfaction of the Engineer.
- (7) The Contractor shall ensure that no photography is permitted on the Site without the consent of the Engineer.
- (8) Important events, construction activities, site visits of VIPs, working of new machinery, weather effects or any occasion advised by the Engineer shall be video graphed. The recording shall be done or converted to .avi format and presented in a CD/DVD with appropriate voice recording describing the event.

15.3 RECORDS OF WAGE RATES

- (1) The Contractor shall keep monthly records of the average, high and low wage rates for each trade/tradesman employed on the Site and records shall be made available to the Engineer during inspection.

15.4 REGISTERS FOR MAINTENANCE

- (1) After completion of works, Contractor shall produce the following registers similar to the ones in use over IR and as per IRPWM, IRPWWM as under:-
 - i) Level Crossing
 - ii) Points and Crossing
 - iii) LWR
 - iv) Ballast
 - v) Zero Missing Fitting
 - vi) L-Section
 - vii) Index Plan and Section
 - viii) Curve Register
 - ix) Gradient Register
 - x) SEJ Register
 - xi) Track Diagram
 - xii) Yard Plan
 - xiii) Yard Diagram
 - xiv) USFD Testing, weld registers
 - xv) Creep register
 - xvi) Gap Survey Register
 - xvii) Toe load register
 - xviii) Register containing weld details (of each weld of both rail) in increasing Km (of each Track)
 - xix) Data base of Track/Asset register for the purpose of maintenance aspects (as per Track Management System prevailing in IR).
 - xx) The above list is not exhaustive and Contractor is required to prepare an Asset database which identifies all infrastructures along the route. This database shall be expandable to allow maintenance requirements to be called up together with an Asset Management and Planned Preventative Maintenance Schedule of DFCC.

Any other registers as directed by Engineer to be used during maintenance.

16.0 MATERIALS

- (1) Materials and goods for inclusion in the Permanent Works shall be new.
- (2) Certificates of tests by manufacturers which are to be submitted to the Engineer shall be current and shall relate to the batch of material delivered to the Site.
- (3) Certified true copies of certificates may be submitted if the original certificates could not be obtained from the manufacturer.
- (4) Parts of materials which are to be assembled on the Site shall be marked to identify the different parts.
- (5) Contractor shall deposit Track material with the representative of Employer as per the inventory list .

PART-II
CHAPTER-VI

GENERAL GUIDELINES REGARDING DESIGN AND CONSTRUCTION INTERFACES

1 GENERAL

- (1) Interfaces exist between the Contractor and Designated Contractors for systems, where the systems are mutually dependent, or interactive for satisfactory and safe operation. The Contractor shall maintain close coordination/interface during design, manufacturing, testing, commissioning, Integrated Testing & Commissioning, trial run and defect liability period with the Designated Contractors and consultants who may be working on the Project, whether or not specifically mentioned in the Contract. The Contractor shall perform all design duties and provide all materials, equipment and labour to ensure the satisfactory accomplishment of interface of the systems for which the Contractor is responsible.
- (2) The Contractor shall approach the Employer for the general interface information such as interface requirements, contact points of the Designated Contractors, and once information is received, would coordinate with them for interface activities including the Employer in the information loop.
- (3) The Contractor shall submit and maintain an agreed Interface Management Plan. At all stages of the work, all interfaces shall be discussed and agreed upon, through the Employer between the Contractor and the Designated Contractors. Interfaces should essentially be with Civil Infrastructure, Power Supply & Traction, E&M, Telecommunications and other Designated Contractors advised by the Employer. The Employer's Requirements - General Specification outlines the requirements of the Interface Management Plan.
- (4) The Contractor shall liaise with the Designated Contractors directly to discuss and agree on interfaces. However, the Contractor shall keep the Employer apprised in writing of all such discussions, agreements and conclusions
- (5) It will be the responsibility of the Contractor that interface requirements be finalised as early as possible. Contractual delays and consequential implications as a result of delay in such co-ordination on account of reasons attributable to the Contractor, as concluded by Employer, shall be the sole responsibility of the Contractor.
- (6) It would be the responsibility of the Contractor to settle all disagreements with the Designated Contractors. If such disagreement cannot be resolved by the Contractor, despite all reasonable efforts, then the decision of the Employer shall be final and binding on both parties.
- (7) Broad interface requirements between the Contractor and the Designated Contractors detailing the interfacing issues and division of responsibility are summarised in the Employer's Requirements - General Specification.
- (8) The above interface obligations placed on the Contractor shall be read in conjunction with the interface obligation mentioned in Employer's Requirements - General Specification, Conditions of Contract and other Contract documents.
- (9) Interface requirements describe the principle interfaces between the contractor and designated contractors. These shall be developed, updated and expanded as necessary to encompass all the relevant interface issues encountered during the execution of Contract.
- (10) The Contractor shall take all reasonable steps to keep himself informed of the activities of all Designated Contractors and to identify actual and potential interfaces with Works.
- (11) Track work Interfaces with Designated Contractors
- (12) The list of interface requirements is as shown below:

i. Interface requirements between Signaling (SIG) and Track work Contractor (TRW)

ii. Interface requirems between Traction Electrification, Power Supply, Power Distribution and

SCADA System (PST) and Track work Contractor (TRW)

- (13) The Track works Contractor will be responsible for the interface of all the interface planning and management of all the interface issues between the Track and track related Contract and the Systems Contract.
- (14) The Contractor shall co-ordinate with the Engineer on all matters relating to works that may affect the IR operation on the existing railway such works shall be carried out in accordance with IR Rules and Regulations.

2. EMPLOYER'S/ENGINEER'S INPUT

- (1) The Engineer will coordinate the activities of the Contractor with reference to interfacing with other contractors and agencies during all the phases of the Contract.
- (2) The Employer/Engineer, within the scope of the relevant Contract provisions, will support and assist the Contractor in the following fields:
 - (a) Interfacing with Indian Railways Authorities, State and local authorities for timely receipt of the required permits, certificates and approvals related to the design and construction process;
 - (b) Interfacing with State and local tax authorities for VAT reimbursement arrangements;
 - (c) Any other fields of activities related to the Contract as may be required with the purpose of facilitating the Contractor's performance.
- (3) This support and assistance of the Employer/Engineer shall not release the Contractor of any of his obligations under this Contract.

3. CO-ORDINATION WITH OTHER CONTRACTORS AND INDIAN RAILWAYS

- (1) The Contractor shall undertake design co-ordination with the other contractors and Indian Railways.
- (2) The Contractor shall undertake a lead role in the co-ordination of the activities associated with integrated systems testing including the co-ordination of other contractors and/or Indian Railways to test and monitor their systems to prove the design and integrity of the systems as a whole.
- (3) It shall be the responsibility of the Contractor to secure from the other contractors and/or Indian Railways, in a timely and correct manner whatever interface provision is required for the Contractor to carry out its duties under the Contract.
- (4) Any additional costs arising to the Contractor due to his late and/or improper interfacing with the other contractors and/or Indian Railways, shall be to the Contractor's account. Such improper interfacing shall include, but not be limited to:
 - a) Late provision of interfacing information
 - b) Failure to adhere to agreed interface
 - c) Changing an interface after it has already been agreed and signed off
- (5) Track Contractor shall give the approved track alignment to system contractor.
- (6) Works will be taken over by the Employer as per relevant clause of Contract conditions.

DESIGN STANDARDS

Following is the indicative list of Design standards. All codes and manuals with correction slips issued upto 28 days prior to last date of submission of bid shall be applicable for this bid. The technical specifications and manuals of Indian Railways shall only be used. Research Design and Standards Organization (RDSO), Lucknow, India, an organization of Ministry of Railways, Government of India has standardized the technical specifications for various components of railway systems in India as Indian Railway Standard (IRS) Specifications, which are generally based on International Specifications and adopted to Indian conditions.

Track

- a) Indian Railway Permanent Way Manual.
- b) IRS T 12-2009 for UIC 60KG/m.
- c) UIC Leaflet 860 8th edition.
- d) Manual of Instructions on LWRs of IR.
- e) IR Manual for Flash Butt Welding of Rails 2004.
- f) IR Standards Specification for Fusion Welding of Rails Alumino-Thermic Process.
- g) IRS T 29 2000 Cast manganese Steel Crossings.
- h) IRS T 39 1985 Pretress Concrete Sleepers.
- i) IS:1785-Part 1 High Tensile Steel Wire.
- j) IRS GE 1 June 2004 Ballast specification.
- k) IRS T 1966 Fish Plates and Fish Bolts.
- l) Manual for USFD Testing of Rails & Welds by RDSO,
- m) SSOD of Eastern DFC

Fire Standards

- a) IS 1641 : 1988 Code of practice for fire safety of buildings (general) : General principles of fire grading and classification (first revision).
- b) IS 3844 : 1989 Code of practice for installation and maintenance of internal fire hydrants and hose reels on premises (first revision).
- c) IS 1646 : 1997 Code of practice for the safety of buildings (general) : Electrical installations (second revision).
- c) IS 11360 : 1985 Specification for smoke detectors for use in automatic electrical fire alarm system.
- e) IS 1644 : 1988 Code of practice for fire safety of buildings (general) : Exit requirements and personal hazard (first revision).
- f) IS 2175 : 1988 Specification for heat sensitive fire detectors for use in automatic fire alarm system (second revision).
- g) IS 11360 : 1985 Specification for smoke detectors for use in automatic electrical fire alarm system.
- h) IS 2189 : 1999 Code of practice for selection, installation and maintenance of automatic fire detection and alarm system (second revision).
- i) IS 884 : 1985 Specification for first-aid hose reel for firefighting (first revision).
- j) IS 940 : 1989 Specification for portable fire extinguisher, water type (gas cartridge) (third revision).
- k) IS 2878 : 1986 Specification for fire extinguisher, carbon-dioxide type (portable and trolley mounted) (second revision).
- l) IS 11833 : 1986 Specification for dry powder fire extinguisher for metal fires.

Electricity Standards

- a) Power supply installations and other electric installations shall comply with Indian Electricity Standards.
- b) Internal wiring of buildings shall comply with Indian Building code of practice.
- c) All electrical installations shall be earthed as per relevant Indian standard code for earthing of electric installations.
- d) In station buildings electric fittings and electric gadgets shall be provided as per Indian Railways Boards letter No. 99/Electric/(G)/136/1 dated 17.03.2006.
- e) Deviations if any to improve performance standards shall be with the approval of Engineer.
- f) Regulations for Power line Crossings of Railway tracks as per Indian Railways Manual of AC Traction.

Additional Codes and Standards

The following Indian Codes and Standards shall be referred to where applicable:

- The Energy Conservation Act, 2001
- Guidelines on Equipment issued by the Bureau of Energy Efficiency
- Energy Conservation Building Code
- IR General and Subsidiary rules
- IR Safety Rules
- Relevant pollution control codes
- Applicable labour laws like Workmen's Compensation Act etc.

ADDITIONAL TECHNICAL SPECIFICATIONS

Part III

Chapter I

PRECAUTIONS WHILE WORKING IN CLOSE PROXIMITY OF EXISTING INDIAN RAILWAY TRACK

3.5 PRECAUTIONS WHILE WORKING IN CLOSE PROXIMITY OF EXISTING INDIAN RAILWAY TRACK

3.5.1 General

Any construction activity involving the existing embankment/formation/running track of the Indian Railways shall be carried out only with the prior specific authorization of the Engineer.

3.5.2 Works being executed outside running lines are further divided into following 3 sub groups depending upon their distance from the IR tracks

- a) works being done within 3.5 meters from centre of track.
- b) works being done between 3.5 meters and 6 meters from centre of track.
- c) works being done beyond 6 meters from centre of track.

If a work site is located far away from the existing track but the vehicles in connection with the work are required to ply within the distance from centre of track as mentioned above, it will be constructed that the work is being executed under above classification.

3.5.2.1 Works being done within 3.5 meters from centre of track

All works planned within 3.5 meters from centre of running line or which involve working of machineries and vehicles within this zone, are to be done essentially under block protection and necessary safety precautions for protection of track as per para 806 and 807 of IRPWM be taken. This includes even occasional plying of vehicles/machineries for short durations.

3.5.2.2 Works being done between 3.5 meters and 6 meters from centre of track.

Following precautions be taken when works are required to be done between 3.5 meters to 6 meters from track centre or machines/vehicles are required to work/ply within this zone:

- (i) Before start of work demarcation should be done parallel to running track at a distance of 3.5 meters from centre of track in advance, as per sketch B, by 150 mm wide white line of lime. Any work or movement of machinery infringing this line will need block protection. Rail barricading should be put up at such locations, as per sketch C, to ensure that even by carelessness or oversight, vehicles do not infringe fixed dimensions. Barricading design shall be approved by the Engineer.
- (ii) In case vehicles have to ply or machineries have to work within this zone, railway's/DFCCIL's and contractor's supervisors be positioned as shown in sketch D except for the following:
 - a. Instead of a Railway/DFCCIL supervisor it would be a responsible and trained staff of the Contractor

- b. Additional trained staff of the Contractor, shall be posted where turning of vehicles is required during working e.g. earth work bridge work, ballasting etc. Location for reversing vehicles should be nominated and it should be selected in such away that there is no danger to running trains at such location. Such trained staff of the Contractor should be available with hand flags so that vehicles do not come closer to track by 3.5 meters. Wherever vehicles have to take turn, it should be done in such a way that the driver is invariably facing the running track at all times.
- (iii) Look out men should be posted along the track at a distance of 800 meters from location of work with red flag and to whistle in face of road vehicles and approaching trains. Look out men shall also be suitably trained staff of Contractor as mentioned in para 3.5.2.2 (ii) above.
- (iv) In addition to look out men, caution order needs to be issued to trains and speed restrictions imposed wherever considered necessary through Employer.
- (v) Arrangements should be made to protect the track in case of emergency at work site.
- (vi) All temporary arrangements required during execution should be done in a manner that moving dimension is not fringed.
- (vii) Individual vehicle/machinery shall not be left unattended at site of work. If it is unavoidable and essential to stable it near running track, it shall be properly secured and manned even during non working hours with all arrangements to protect the track from infringement.
- (viii) Any material unloaded or shifted along the track should be kept clear of moving dimensions and stacked at a specified distance from running track.
- (ix) Movement of vehicle/working of machineries should be prohibited at night. However, in case of emergency when night working unavoidable, adequate lighting shall be provided with all protection measures as mentioned above in full force. All night working near IR track shall require Engineer's prior approval.
- (x) The work site should be suitably demarcated to keep public and passengers away. Necessary signages, boards, such as "work in progress" etc should be provided at appropriate location to warn public/passengers.
- (xi) Contractor's drivers/operators handling vehicles/machineries shall be issued a fitness certificate by the safety officer of the Contractor after educating them about safety norms and after taking assurance in writing for working within vicinity of railway's track.
- (xii) While working on cuttings with machineries or when there is movement of vehicles above cutting, if there is possibility of any of the following circumstances, work has to be done under block protection:
 - (a) Any possibility exists for machinery/vehicle after toppling/due to loss of control come over track or infringe it.
 - (b) Chance of machineries/vehicles to come within 3.5 meters from track centre though working beyond it.

3.5.2.3 Works being beyond 6 meters from centre of IR track.

No precautions are needed except in cuttings or where the work can affect train running in any way.

3.5.3 Procedure to be followed for cutting of existing IR formation

Locations where it is necessary to cut the existing IR formation for the construction of the construction of the DFC formation are classified into the following two categories:

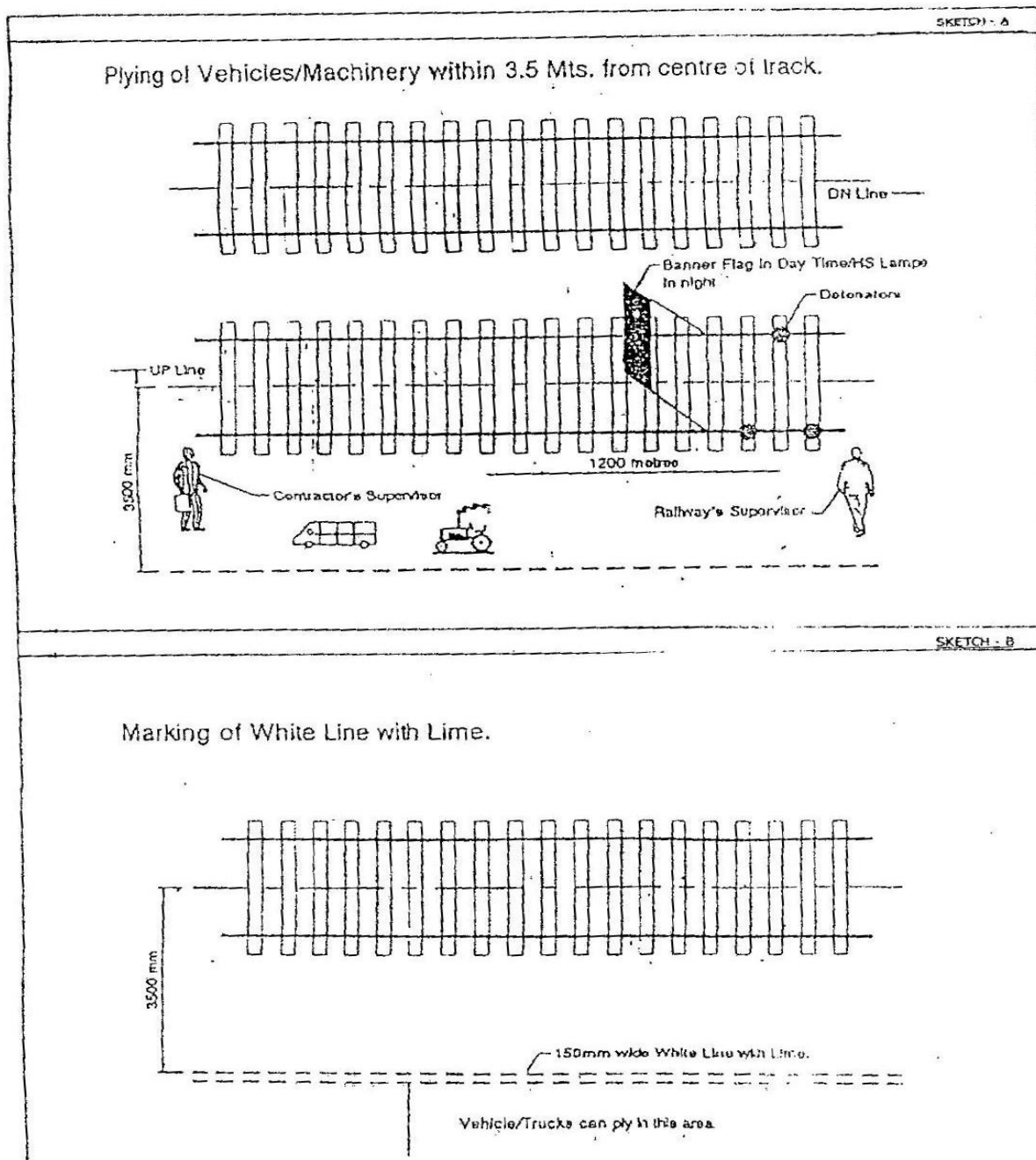
- (a) Where the distance between the centre line of existing IR track and the proposed DFC track is less than 8 m
- (b) Where the distance between the centre line of existing IR track and the proposed DFC track is greater than or equal to 8 m

3.5.3.1 Distance between center lines of IR DFC track is less than 8 m.

- (i) Such a situation may arise while working in existing IR yards. In such cases, if is agreed with IR to suspend the nearest IR line for the traffic, the existing IR formation can be cut vertically at a distance of 3.8 m from the centre line of the proposed DFC track for the depth required to provide the formation layers (blanket and prepared sub grade) of the DFC track as per specifications. In case it is not agreed to suspend the traffic on nearest IR line, detailed methodology for the work will be submitted by contractor to the Engineer for the approval and work will be executed accordingly following all safety precautions.
- (ii) Due care and precautions shall be taken to avoid any slippage of the cut. In case of any slippage, damage or disturbance of the IR track and formation, the Contractor shall rectify and restore the same to its original configuration at his own cost to the satisfaction of the Engineer.
- (iii) The suspension of the IR line will not be more than two weeks and this portion of the earthwork shall be completed within this period.
- (iv) This work shall not be carried out during monsoon, during rainy days or when the IR formation is in a saturated condition.

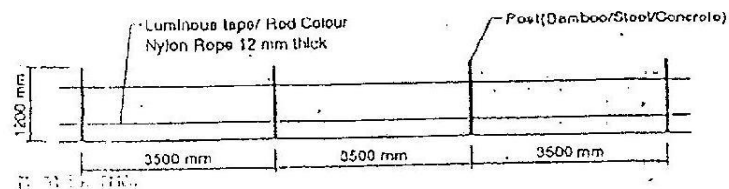
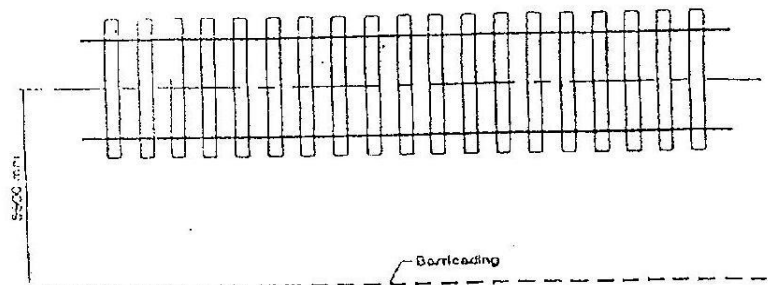
3.5.3.2 Distance between center lines of IR and DFC track is greater than or equal to 8 m.

- a. While constructing the bank by the side IR running track, benching of existing slope shall be done, before new earthwork is taken up, to provide proper bonding between old and new earthworks, It should be ensured that there is no humus material left on the benched slope. Care need to be taken to avoid entry of rain water into the formation from this weak junction to avoid development of weakness in formation, slope failure, maintenance problems due to uneven settlement.
- b. Starting from the toe, benching at every 30 cm height shall be done on the sloped surface of existing IR bank as in sketch below, so as to provide proper amalgamation between old and new earthwork.

SAFETY/PROTECTION ARRANGEMENT SKETCHES

SKETCH-C

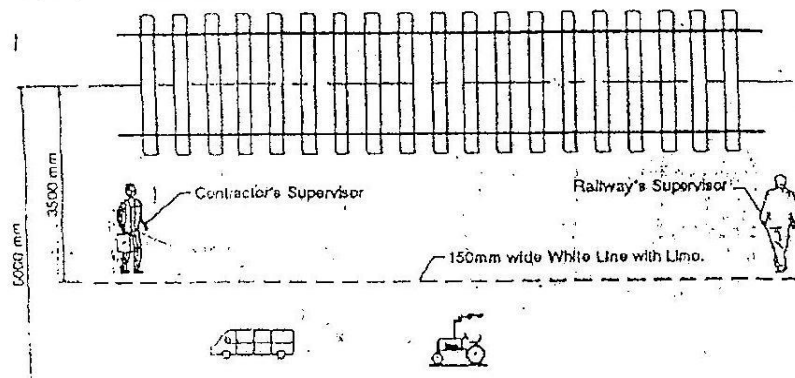
Provision of Barricading.



Elevation of Barricading

SKETCH-D

Plying of Vehicles/Machinery between 3.5 Mts. to 6.0 Mts. from centre of track.



Part III**Chapter II****CODES & SPECIFICATIONS TO BE FOLLOWED****3.6 CODES & SPECIFICATIONS TO BE FOLLOWED**

3.6.1 List, though not exhaustive, of Codes / Specification with up to date corrections slip to be followed is as under:

3.6.2 Track

- a) Indian Railway Permanent Way Manual.
- b) IRS T 12-2009 for UIC 60KG/m.
- c) UIC Leaflet 860 8th edition.
- d) Manual of Instructions on LWRs of IR.
- e) IR Manual for Flash Butt Welding of Rails 2004.
- f) IR Standards Specification for Fusion Welding of Rails Alumino-Thermic Process.
- g) IRS T 29 2000 Cast manganese Steel Crossings.
- h) IRS T 39 1985 Pretress Concrete Sleepers.
- i) IS:1785-Part 1 High Tensile Steel Wire.
- j) IRS GE 1 June 2004 Ballast specification.
- k) IRS T 1966 Fish Plates and Fish Bolts.
- l) Manual for USFD Testing of Rails & Welds by RDSO,
- m) SSOD of Eastern DFC

3.6.3 Fire Standards

- d) IS 1641 : 1988 Code of practice for fire safety of buildings (general) : General principles of fire grading and classification (first revision).
- e) IS 3844 : 1989 Code of practice for installation and maintenance of internal fire hydrants and hose reels on premises (first revision).
- c) IS 1646 : 1997 Code of practice for the safety of buildings (general) : Electrical installations (second revision).
- f) IS 11360 : 1985 Specification for smoke detectors for use in automatic electrical fire alarm system.
- e) IS 1644 : 1988 Code of practice for fire safety of buildings (general) : Exit requirements and personal hazard (first revision).
- f) IS 2175 : 1988 Specification for heat sensitive fire detectors for use in automatic fire alarm system (second revision).
- g) IS 11360 : 1985 Specification for smoke detectors for use in automatic electrical fire alarm system.
- h) IS 2189 : 1999 Code of practice for selection, installation and maintenance of automatic fire detection and alarm system (second revision).
- i) IS 884 : 1985 Specification for first-aid hose reel for firefighting (first revision).
- j) IS 940 : 1989 Specification for portable fire extinguisher, water type (gas cartridge) (third revision).
- k) IS 2878 : 1986 Specification for fire extinguisher, carbon-dioxide type (portable and trolley mounted) (second revision).
- l) IS 11833 : 1986 Specification for dry powder fire extinguisher for metal fires.

3.6.4 Electricity Standards

- a) Power supply installations and other electric installations shall comply with Indian Electricity Standards.
- b) Internal wiring of buildings shall comply with Indian Building code of practice.
- c) All electrical installations shall be earthed as per relevant Indian standard code for earthing of electric installations.
- d) In station buildings electric fittings and electric gadgets shall be provided as per Indian Railways Boards letter No. 99/Electric/(G)/136/1 dated 17.03.2006.
- e) Deviations if any to improve performance standards shall be with the approval of Engineer.
- f) Regulations for Power line Crossings of Railway tracks as per Indian Railways Manual of AC Traction.

3.6.5 Additional Codes and Standards

The following Indian Codes and Standards shall be referred to where applicable:

- The Energy Conservation Act, 2001
- Guidelines on Equipment issued by the Bureau of Energy Efficiency
- Energy Conservation Building Code
- IR General and Subsidiary rules
- IR Safety Rules
- Relevant pollution control codes
- Applicable labour laws like Workmen's Compensation Act etc.

3.6.6 In case of any conflict between Technical Specification, Additional Technical Specification mentioned in Part-II and Part-III of Tender Document, Codes / Specifications mentioned above or otherwise or regarding correct applicability of relevant specification, the decision of Engineer shall be final and binding.

Part III

Chapter III

PRIORITY OF DOCUMENTS

3.7 PRIORITY OF DOCUMENTS

3.7.1 The several documents forming the contract are to be taken as mutually explanatory as one another. If any inconsistency or discrepancy is found in the documents the Client/Employer shall issue any necessary Clarification or instruction. For the purpose of interpretation the priority of documents shall be in accordance with the following sequence.

1. The Contract agreement
2. The Letter of Award
3. The Preamble & General Instructions to Tenderers
4. The Schedules
5. Special Conditions of Contract (SCC)
6. General Conditions of Contract (GCC)
7. Technical Specifications and Additional Technical Specifications as part of Special Conditions
8. Any other documents forming part of Contract

PART III

Chapter IV**SITE FACILITIES****3.8 SITE FACILITIES FOR THE EMPLOYER AND THE ENGINEER**

Site facilities for the Employer and the Engineer during the entire contract period shall be provided by the Contractor.

3.8.1 GENERAL**3.8.1.1 Site Office Requirements**

The Contractor shall construct, equip or provide and furnish the site offices for the Employer's and Engineer's use within 90 days after the commencement date. The Contractor shall also maintain the site offices in good conditions and provide services including, but not limited to maintenance of the office equipment and furniture, repairing and mending, cleaning, consumable replenishment in respect of toiletries, cartridges for the plotter and colour laser writers, first aid box, batteries / battery cells, drinking water etc. Details of the Engineer's site office including provisional site offices are described in the following paragraphs.

All furniture, furnishings, fittings & fixture and equipment etc. shall be of the configuration, make and quality as consented by the Engineer.

Contractor can also provide the site office by hiring an existing building subjected to the requirement of the area specified in 3.8.1.2(2) below with the approval of Engineer.

3.8.1.2 Engineer's Site Offices

- (1) The area surrounding the office shall be well drained and provided with concreted pavements, walk ways and parking areas for the vehicles.
- (2) The main office buildings shall be of sound design and of the material as approved by the Engineer, complying with national building codes. The office shall be weatherproof, lined inside with plywood, and painted internally and externally. Floors shall be tiled and floor to ceiling height shall be as approved by the Engineer. Each room having an internal wall shall have at least one screened window. The office building shall have two external lockable doors with screened storm doors. Electricity supply and receptacles shall be provided in various locations appropriate to the usage of the rooms. Rooms shall be well lighted, appropriate HVAC systems with temperature control and other necessary building services as described in the National Building Code of India

Room & Designation		Min. Area (m2)
A	Employer	
i	General Manager Office	40
B	Engineer	
i	Project Manager	80
	Sr. Engineers/Junior Engineers/	
	Administration / Filling Room/Store/Drivers/ Lobby/Display/kitchenette	

Total	120
-------	-----

(3) Site office shall be provided for Engineer/Employer. The location of site office will be decided with the approval of Engineer.

Engineer's Site Offices shall be furnished as referred to the following parameters and the design shall be submitted to the Engineer for review.

Note : Changes in the area to be provided for various subheads under B can be made as per the requirement of the Engineer keeping the overall area as 120 sqm

Fixture / Furnishing	No. of Items
Executive desk (lockable) with drawer and chair	2
Desk (lockable) with drawer and chair	10
Side Table	2
Additional chairs	10
Plan table, adjustable w/lamp& stool	1
Drawing Cabinets	2
Filing cabinet (4 drawer-lockable)	3
Steel cabinet (lockable)	2
Office safe (combination lock)	1
Book cabinet (glass fronted)	1
Wall shelving (set)	2
Window curtains (set)	as one thinks fit
Internet Connection & telephone communication	Suitable
Fire extinguisher	as per applicable code
Wastepaper can	25
Color LaserWriter (FAX/Copier)	1
Plotter	1
Display boards (walltype)	2
First aid box	3
Refrigerator	1
Crockery/cutlery set	2 sets
Hot and cold drinking water dispenser	1
Sink unit with worktops and geyser	1
Lavatories with water closet	3
Urinals with flush	3
Wall mirror	3
Safety helmets (various sizes)	20
Rain coats (various sizes)	10
Industrial safety goggles	10
Pair safety boots (various sizes)	20
Wall clock	2
Lockers	15
Safety High Glow Jackets	20
Safety Harness (full body)	10
Sanitizer, handgloves, masks etc	Suitable

(4) The Contractor shall provide for the exclusive use of the Employer at all times

during the Contract all such experienced chainmen, two office attendants, watchmen, instruments, apparatus and protective clothing as required.

(5) Plumbing fixtures shall be standard types made out of porcelain or stainless steel and all pipe work and fittings shall be polyvinyl chloride (PVC). All works, materials and fixtures shall comply with the national plumbing code, sanitary engineering standards, and other applicable regulations.

(6) The equipment and furniture to be provided are listed in Table at the end of this Appendix. The equipment and furniture shall be of suitable make/Brand, model, type, size and capacity.

3.8.2 Contractor shall provide hard covered sheds sufficient for Engineer's/ Engineer's visitors' vehicles.

3.8.3 REST AREAS

Annexed to each main site office there shall be a rest area with a 15 sqm for and including basic overnight stay and facilities including air- conditioning, beds and bedding and all other appropriate items. Each rest area shall have WCs/ showers.

3.8.4 GENERAL REQUIREMENTS

Materials used for the construction of the offices shall be of good quality and finish. Materials shall be chosen such that the buildings when erected shall give good heat and sound insulation. Both external and internal walls shall be soundproof.

All buildings shall be supplied with continuous (24 hour) running potable water to the kitchens and wash rooms. The toilets may use raw water for flushing, shall be equipped with water closets and sitting type stools and shall be adequately ventilated. The Contractor shall also arrange for the constant and hygienic disposal of all effluent, sewage and rubbish from the buildings. Storage tanks will be required due to restricted water supply at most locations.

All buildings shall be supplied with electricity at 220 voltage and 50 Hz that shall be distributed to each room in accordance with the regulations. Lighting and electrical power points shall be provided in each room. A back up generator is required to be provided to meet the full power load in case of power disruption.

Fire fighting equipment shall be provided in accordance with the recommendations of the local fire brigade station.

The Contractor shall supply the new furniture and equipment to the Engineer's offices in the manner required by the Engineer. Given below is the indicative list of items required for Engineer's office in the main and satellite subsidiary compounds.

The office accommodation shall be retained until the expiry of the Defects Notification Period unless otherwise instructed to the contrary by the Engineer.

3.8.5 FIXTURES AND FURNISHINGS IN ENGINEER'S SITE OFFICE

Prior to commencing the erection of the Employer's /Engineer's accommodation the Contractor shall obtain the consent of the Employer to the accommodation, including layout, equipping, electrification plan and furnishings proposed by the Contractor.

The Contractor shall make such reasonable amendments to the layout and furnishings as the Employer / Engineer may request.

Unless otherwise permitted by the Engineer, the Contractor shall complete the accommodation and provide all equipment and furnishing in sufficient time to allow the Engineer to occupy the offices prior to the commencement of excavation or any Permanent Works.

The accommodation shall be maintained in a clean, stable and secure condition and shall be cleaned at least daily.

Equipment provided for the use of the Engineer shall be maintained in a clean and serviceable condition and all consumables shall be replenished when required.

Measuring and testing equipment shall be calibrated before they are used and at regular intervals to which the Engineer has given his consent.

Survey equipment shall be maintained by the service agent and shall be regularly checked but the overall responsibility shall rest with the Contractor.

Equivalent replacements shall be provided for equipment which are not in working order or otherwise are not in a serviceable condition or are being repaired or serviced.

The consent of the Engineer shall be obtained before accommodation or equipments are removed.

MILESTONES AND TIME SCHEDULE

PART-IV

CHAPTER - I

MILESTONES AND TIME SCHEDULE

4.1.1 Time Schedule:

4.1.1.1 Time of start and completion:

The time allowed for execution of the works is **12 (Twelve Months)** from the date of issue of Letter of Acceptance (LOA) from DFCCIL.

The contractor shall be expected to mobilize to the site of works and commence execution of the works within **28 (days)** from issue of Letter of Acceptance by DFCCIL. The contractor shall be expected to complete the whole work ordered on the contractor within 12 (Twelve months) from the date of issue of Acceptance Letter by DFCCIL.

If the contractor commits defaults in commencing execution of the works as afore stated, DFCCIL shall without prejudice to any other right to remedy, be at liberty to take action for termination of contract as per GCC.

4.1.1.2 Progress of works:

Within a period of 28 days from the issue of Letter of Acceptance, the contract shall submit a schedule for completion / program for execution of all works withing the completion period stipulated in the LOA. All schedules and schedule submittals under this Contract shall be computerized by the Contractor utilizing the latest version of ORACLE PRIMAVERA P6 PROFESSIONAL PROJECT MANAGEMENT SOFTWARE, hereinafter referred to as ORACLE PRIMAVERA P6. The contractor shall submit the programme of work in the form on Primavera P6 duly identifying the resource requirement ie, resource loaded for all the activities in consistence with milestone target envisaged below. The chart shall be prepared in direct relation to the time stated as 24 months for the completion of the works as the milestone targets specified below of these special conditions. It shall indicate the forecast of the dates of commencement and completion of various activities of the work and may be amended as necessary by agreements between the Employer and the contractor within the limitation of 24 months as overall completion period. The program shall also indicate the dates by which the inputs required from Employer is expected and same shall be communicated to Employer for timely arrangement. The issues to be addressed and inputs required from the Employer shall be flagged and intimated to Employer well ahead of time, preferably 7 days before these are required as per program.

4.1.1.3 Monthly Progress Update:

The Contractor shall ensure that the schedule is current and accurate and is properly and timely monitored, updated and revised as project conditions may require and as required by the Contract documents. There shall be monthly update of Schedule which shall show up-to date and accurate progress of the Works, and shall forecast the completion date for activities in progress based on the contract baseline schedule.

The monthly schedule update shall be prepared by the Contractor and report shall be submitted to Employer on Monthly basis by the 5th of each month indicating progress made against each activity, resources deployed, recovery plan, if any, assistance requirement from Employer, if any.

4.1.2 Achievement of milestone progress:

In order to ensure progress during the execution of the work the contractor will be expected to achieve the following milestone targets ahead of dates mentioned against each. Failure to achieve accomplished milestone targets within allocated timeframe, save for reason accepted as laid by the Engineer shall create and constitute the ground for failure on the part of contractor for maintaining progress of the work as per agreed programme.

S.No.	Milestone Targets	Time allocated within which to archive completion in total 12 (Twelve) months
1	Survey and alignments	
	(i) Preliminary Design	
	Track alignments showing locations Marker	
	Yard Plans	
	Layout calculation	
	IWR/CWR Plans showing location of SEJ's	
	Canted points and crossing with thick web switches	
	Approval by Engineer and Employer	
	(ii) Definitive Design	
	Track alignments showing locations Marker	
	Yard Plans	
	Layout calculation	
	IWR/CWR Plans showing location of SEJ's	
	Canted points and crossing with thick web switches	
	Validation of Track design, Drawing	
	Approval by Engineer and Employer	
	(iii) Setting out	D+20 to D+80
	(iv) Completion Drawing	
2	Laying of Track	
	Transportation of Rails	D+20 to D+180
	Supply of Sleeper	D+15 to D+100
	FBW of Rails and USFD Testing	D+40 to D+240
	Supply of Fastening	D+20 to D+180
	Spreading of sleeper	D+20 to D+180
	Laying of Rails including Fastening	D+20 to D+220
	Spreading and profiling of Ballast	D+100 to D+260
	First Packing	D+200 to D+210
	Second Packing	D+210 to D+220

	Final Packing	D+250 to D+260
	Distressing	D+220-D+227
5	Integrated Testing and Commissioning	D+330-D+360
6	Inventory Supply for Maintenance	D+330-D+360
7	Preparation and filling of different Register	D+330-D+360

Note:D

1. “D” is the date of issue of Letter of Acceptance by DFCCIL to the contractor.
4. These Milestones shall be further broken down and planned in detailed on MS Project/ Primavera.
5. Formation shall be handed over to track contractor as soon as it is ready in sequential manner.

**TENDER FORMS
(INCLUDING SCHEDULE OF PRICES)**

PART- IV
CHAPTER II

TENDER FORMS

FORM No.	SUBJECT
Form No. 1	Offer Letter
Form No. 2	Tenderer's Credentials
Form No. 2A	Technical Eligibility Criteria Details
Form No. 2B	Financial Eligibility Criteria Details
Form No. 2C	Applicant's Party Information Form
Form No. 3	Summary of Prices
Form No. 4	Schedule of Prices and Total Prices
Form No. 5	Contract Agreement
Form No. 6	Performance Guarantee Bond
Form No. 7	Standing indemnity bond for on account payment.
Form No. 8	ECS / NEFT / RTGS
Form No. 9	Draft MOU for Joint Venture Participation
FormNo.10	Draft Agreement for JV
FormNo.11	Pro-forma of Participation from each partner of JV
FormNo.12	Power of Attorney for authorized signatory of JV Partners
FormNo.13	Power of Attorney to lead partner of JV
Form No. 14	Proforma for Time Extension
Form No. 15	Certificate of Fitness
Form No. 16	Proforma of 7 days Notice
Form No. 17	Proforma of 48 Hours Notice
Form No. 18	Proforma of Termination Notice
Form No. 19	Format of Bank Guarantee for Mobilization
Form No. 20	Format of Integrity pact
Form No. 21	Summary of Insurances
Form No. 22	Format for Affidavit
Form No. 23	Format for Guarantee Bonds
Form No. 24	Design Certificate
Form No. 25	Final Supplementary Agreement

OFFER LETTER

Tender No.....

Name of work.....

To,
 The General Manager/
 Coordination,
 DFCCIL, DDU

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Amendments.;
- (b) We offer to execute the Works in conformity with the Bidding Documents;
- (c) Our bid shall be valid for a period of **120 days** from the date of opening of Technical Bid in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) We have not been blacklisted/banned in accordance with para.1.3.13 (ii)(v)(a) of Preamble & General Instructions to tenderers.
- (e) We are neither Bankrupt/Insolvent nor in the process of winding-up nor there is a case pending before any Court on deadline of submission of the Bid in accordance with para. 1.3.13 (ii) (v) (b) of Preamble & General Instructions to tenderers.
- (f) If our bid is accepted, we commit to obtain a Performance Guarantee in accordance with the Bidding Documents;
- (g) If our bid is accepted, we commit to deploy key equipment and key personnel consistent with the requirements of the work.
- (h) We understand that this bid, together with your written acceptance thereof included in your notification of award/Letter of Acceptance (LOA), shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (i) All information, statements and description in this bid are in all respect true, correct and complete to the best of our knowledge and belief and we have not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes/incorrect information are detected at any stage, we understand the bid will invite summarily rejection and forfeiture of bid security, the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.
- (j) We understand that you are not bound to accept the lowest bid or any other bid that you may receive.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

TENDERER'S CREDENTIALS

S. No.	Description
1	For technical experience/competence, give details of similar completed works during the last 05 (five) financial years (i.e. current Financial year and three previous Financial Years) in the proforma given in Form-2A
2	For financial capacity and organizational resources, give details of contractual payments received for the last three financial years (i.e current Financial year and three previous financial years) as per audited balance sheet certified by Chartered Accountant in the proforma given in Form-2B
3	Give constitution of your firm. Attach certified copies of legal documents in support thereof. Form-2C

TECHNICAL ELIGIBILITY CRITERIA DETAILS

**Details of the similar works completed (as per Para 1.3.13 (i) (A) (i) of
'Preamble & General Instructions to Tenderers')**

S. No.	Description	Details to be filled by Tenderer	
1	Contract Identification/ Contract Agreement No.		
2	Award date		
3	Date of Completion		
4	Role in Contract (This criterion must be fulfilled by the JV or Lead Member of JV ONLY)	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>
5	If member in a JV, specify share of each JV member		
6	Total Contract Value of COMPLETED Single works as defined in requirement of Para 1.3.13 (i) (A) (i)		
7	Total payment received against this contract before Tender Opening Date		
8	Track Work on Bridges for:	Railway/Metro Railways/Road Bridge	
9	Value of completed work of bridge/viaduct of Railway/Metro Railways/ Roads excluding cost of approach embankment		
10	If member in a JV, specify qualifying amount against Item-9	<i>[insert percentage]</i>	<i>[insert amount]</i>
11	Employer's Name: Address: Telephone/fax number E-mail:		
12	Description of the similarity in accordance with Criteria 1.3.13 (i) (A) (i)		

The bidder shall upload Certified completion certificates issued by the client duly signed and scanned/ digitally signed as per Eligibility Criteria of the tender documents.

Signature of the
Tenderer with Seal

Note: Use separate sheet for each work submitted in support of this criterion.

TECHNICAL ELIGIBILITY CRITERIA DETAILS

**Details of the similar works completed (as per Para 1.3.13 (i) (A) (ii) of
'Preamble & General Instructions to Tenderers')**

S. No.	Description	Details to be filled by Tenderer	
1	Contract Identification/ Contract Agreement No.		
2	Award date		
3	Date of Completion of contract, if complete		
4	Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>
5	If member in a JV, specify percentage share of each member		
6	Type of Bridge	Open Web/Plate Steel Girder/Composite Girder/ Bow string Girder for Railway/Metro Railways/Road Bridge	
7	Number of spans and span-length completed in the relevant type of bridge		
8	Number and Length of the completed Bridge span of a Work, similar to the works as defined in requirement of Para 1.3.13 (i)(A) (ii) read along with Note, by the tenderer/JV member		
9	Date of Completion of relevant portion of contract as per Item-7		
10	Employer's Name: Address: Telephone/fax number E-mail:		
11	Description of the similarity in accordance with Criteria 1.3.13(i)(A)(ii)		

The bidder shall upload Certified completion certificates issued by the client duly signed and scanned/ digitally signed as per Eligibility Criteria of the tender documents.

Signature of the
Tenderer with Seal

Note: Use separate sheet for each work submitted in support of this criterion.

FINANCIAL ELIGIBILITY CRITERIA DETAILS

Each Bidder or each member of JV must fill in this form separately.

Name of Bidder/ JV Partner

Details of contractual payments (Construction only) received during the last three financial years and current financial year

Contractual payments received (Construction only)	
Year	Value of payment received in Rs. (Contract Receipts)
Current Year (2022-23)	
2021-22	
2020-21	
2019-20	
Total Contractual Payment	

Note: The details should be extracted from the audited balance sheet Certified by the Chartered Accountant or Form16-A issued by the Employer as per clause 1.3.13 of 'Preamble & General Instructions to Tenderers'.

The bidder shall attach necessary documents in support of the above.

Signature of the
Tenderer with Seal

Signature, Seal & Registration No. of Chartered Accountant

APPLICANT'S PARTY INFORMATION FORM

Applicant name:

[insert full name]

Applicant's Party name:

[insert full name of Applicant's Party]

Applicant's Party country of registration:

[indicate country of registration]

Applicant Party's year of constitution:

[indicate year of constitution]

Applicant Party's legal address in country of constitution:

[insert street/ number/ town or city/ country]

Applicant Party's authorized representative information

Name: *[insert full name]*

Address: *[insert street/ number/ town or city/ country]*

Telephone/Fax numbers: *[insert telephone/fax numbers, including country and city codes]*

E-mail address: *[indicate e-mail address]*

1. Attached are copies of original documents of

☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above.

☐ In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status.

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Signature of the
Tenderer with Seal

SUMMARY OF PRICES

(Summary of Prices has been separately attached in Financial Packet “B”)

SCHEDULE OF PRICES & TOTAL PRICES

**(Schedule of Prices & Total Prices have been separately attached in Financial Packet
“B”).**

SAMPLE**AGREEMENT****CONTRACT AGREEMENT**

THIS AGREEMENT ("Agreement") is made at New Delhi on the day of ____

BETWEEN

(1) Dedicated Freight Corridor Corporation of India Limited, incorporated under the laws of India and having its principal place of business at, Pragati Maidan Metro Station Building Complex, New Delhi, India-110001 (hereinafter called '**the Employer**'),

and

(2) _____, a company / corporation / JV incorporated under the laws of -----having its principal place of business at----- (herein after called "**the Contractor**").

WHEREAS in reference to a call for Tender for [Name of Work] as per [Tender No] at Annexure "A" here to, the Contractor has submitted a Tender here to and where as the said Tender of the contractor has been accepted for the captioned work as per copy of the Letter of Acceptance of Tender No----- dated ----complete with enclosure at the accepted rates and at an estimated contract value of Rs. _____ (Rupees_ only). Now the agreement with witnesseth to that in consideration of the premises and the payment to be made by the Employer to the Contractor provided for herein below the Contractor shall supply all equipments and materials and execute and perform all works for which the said Tender of the Contractor has been accepted, strictly according to the various provisions in Annexure 'A' and 'B' hereto and upon such supply, execution and performance to the satisfaction of the Employer, the Employer shall pay to the contractor at the several rates accepted as per the said Annexure 'B' and in terms of the provisions therein.

IN WITNESS WHERE OF the parties hereto have caused their respective Common Seals to be here unto affixed/ (or have here unto set the irrespective hands and seals) the day and year first above written.

For and on behalf of the Contractor

For and on behalf of the Employer

Signature of the authorized official

Signature of the authorized official

Name of the official

Name of the official

Stamp/seal of the Contractor

Stamp/Seal of the Employer

SIGNED, SEALED AND DELIVERED

By the said _____ Name

e

On behalf of the Contractor in the
presence of:
Witness _____
Name _____
Address _____

By the said _____ Nam

on behalf of the Employer in the
presence of:
Witness _____
Name _____
Address _____

Enclosures:-

1. Annexure 'A' -Tender Papers
2. Annexure 'B' -Letter of Acceptance of Tender No. _____ Dated _____
Along with Summary of Prices

SAMPLE

Name of the Bank _____
 Managing Director/ DFCCIL Bank Guarantee Bond No. ___Acting _____ through
 _____(Designation Dated ___and address of contract signing authority)

PERFORMANCE GUARANTEE BOND

In consideration of the Managing Director/ DFCCIL acting through GM/Co/DDU, Dedicated Freight Corridor Corporation of India Limited, hereinafter called "DFCCIL") having agreed under the terms and conditions of agreement/Contract Acceptance letter No. _____ dated _____ made between _____(Designation & address of contract signing Authority) and _____(hereinafter called "the said contractor(s)" for the work _____(hereinafter called "the said agreement") having agreed for submission of an irrevocable Bank Guarantee Bond for Rs. _____ (Rs. only) as a performance security Guarantee Bond from the contractor(s) for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We (indicate the name of the Bank) hereinafter referred to as the Bank, under take to pay the Government an amount not exceeding Rs. _____ (Rs. _____ only) on demand by the government
2. We _____(indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the Deputy Chief Project Manager/ FINANCE, Dedicated Freight Corridor Corporation of India Limited or GM/Co/DDU, DFCCIL stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the Government by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement or by reason of the contractor failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rs. _____ only).
3. (a) We _____(indicate the name of Bank) further undertake to pay to the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor (s) in any suit or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.
 (b) The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We, _____(indicate the name of bank) to further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by GM/Co/DDU (Designation & Address of contract signing authority) on behalf of the Government, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor (s) and accordingly discharges this guarantee.

5. (a) Notwithstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the Government or until (date of validity/extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the Government within validity / extended period of validity of guarantee from the date aforesaid.

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

Dated _____ the day of the for _____ (indicate the name of Bank)

**Signature of Bank Authorize official
(Name):**

Designation:

Full Address.

Witness:

1. _____
2. _____

SAMPLE
STANDING INDEMNITY BOND FOR “ON ACCOUNT” PAYMENTS

(On paper of requisite stamp value)

We, M/s _____ hereby undertake that we hold at our stores Depot/s at _____ for and on behalf of the Managing Director/ DFCCIL acting in the premises through the General Manager / DFCCIL/DDU or his successor (hereinafter referred to as “The Employer”) all materials for which “On Account” payments have been made to us against the Contract for (_____) _____) on the section _____ DFCCIL also referred to as Group/s _____ vide letter of Acceptance of Tender _____ dated _____ and material handed over to us by the employer 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 safe custody and protection of the said materials again stall risk till they are duly delivered as erected equipment to the employer or as he may direct otherwise and shall indemnify the employer against any loss/damage or deterioration what so ever in respect of the said material 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 General Manager/DFCCIL/DDU in charge of Dedicated Freight Corridor Corporation of India Limited (Whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus material disposed off and refund becomes due, the Employer shall be entitled to recover from us the 85% of supply portion of Part IV, Chapter-II (Form - 4) to the Contract (as applicable) and also compensation for such loss or damage if any long 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 here after becomes due to us under the said or any other Contract.

Dated this day ____ day of _200

for and on behalf of

M/s _____ (Contractor)

Signature of witness

Name of witness in Block letter.

Address.

**ECS / NEFT / RTGS
MANDATE FORM**

Date :-

To,

Deputy Chief Project Manager /Finance,
DDU Unit

Sub : ECS / NEFT / RTGS payments

We refer to the ECS / NEFT / RTGS set up by DFCCIL for remittance of our payments using RBI's NEFT / RTGS scheme, our payments may be made through the above scheme to our under noted account.

Name of Bank	
Name of City	
Bank Code No	
Name of Bank Branch	
Branch Code No	
Address of Bank Branch	
Telephone Number of Bank Branch	
Fax No of Bank Branch	
Name of customer / Tenderer as per account	
Account Number of Tenderer appearing on cheque book	
Type of Account (S. B. / Current / Cash credit)	
IFSC code for NEFT	
IFSC code for RTGS	
9-Digit-code number of the bank and branch appearing on the MICR cheque issued by the bank.	
Details of Cancelled Cheque leaf	
Telephone no of tenderer	
Cell Phone Number of the tenderer to whom details with regard to the status of bill submitted to Accounts Office i.e Co6 & Co7 & Cheque Purchase Orders particulars can be intimated through SMS	
Tenderer's E - mail ID	

Confirmed by Bank signature of tenderer With stamp and address
Enclose a copy of crossed cheque

**DRAFT MEMORANDUM OF UNDERSTANDING (MOU) For
JOINT VENTURE PARTICIPATION
BETWEEN**

M/s having its registered office at (hereinafter referred to as) acting as the Lead Partner of the first part,

and

M/shaving its registered office at (hereinafter referred to as) in the capacity of a Joint Partner of the other part.

and

M/shaving its registered office at (hereinafter referred to as) in the capacity of a Joint Partner of the other part.

The expressions of and shall wherever the context admits, mean and include their respective legal representatives, successors-in-interest and assigns and shall collectively be referred to as “the Parties” and individually as “ the Party”

WHEREAS:

Dedicated Freight Corridor Corporation of India Limited (DFCCIL) [hereinafter referred to as “Client”] has invited bids for ... “[Insert name of work].....”

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as an integral part of this MOU.
 - (i) Notice for Bid, and
 - (ii) Bidding document
 - (iii) Any Amendment [Addendum/Corrigendum] issued by Dedicated Freight Corridor Corporation of India Limited
 - (iv) The bid submitted on our behalf jointly by the Lead Partner.
2. The ‘Parties’ have studied the documents and have agreed to participate in submitting a ‘bid’ jointly.
3. M/sshall be the lead member of the JV for all intents and purpose and shall represent the Joint Venture in its dealing with the Client. For the purpose of submission of bid proposals, the parties agree to nominate as the leader duly authorized to sign and submit all documents and subsequent clarifications, if any, to the Client. However M/s shall not submit any such proposals, clarifications or commitments before securing the written clearance of the other partner which shall be expeditiously given by M/s.....to M/s.....
4. The ‘Parties’ have resolved that the distribution of responsibilities and their proportionate share in the Joint Venture is as under:

a. Lead Partner;

- (i)
- (ii)
- (iii)

b. Joint Venture Partner

- (i)
- (ii)
- (iii)

[Similar details to be given for each partner]

5. JOINT AND SEVERAL RESPONSIBILITY

The Parties undertake that they shall be jointly and severally liable to the Client in the discharge of all the obligations and liabilities as per the contract with the Client and for the performance of contract awarded to their JV.

6. ASSIGNMENT AND THIRD PARTIES

The parties shall co-operate throughout the entire period of this MOU on the basis of exclusivity and neither of the Parties shall make arrangement or enter into agreement either directly or indirectly with any other party or group of parties on matters relating to the Project except with prior written consent of the other party.

7. EXECUTIVE AUTHORITY

The said Joint Venture through its authorized representative shall receive instructions, payments from the Client. The management structure for the project shall be prepared by mutual consultations to enable completion of project to quality requirements within permitted cost and time.

8. BID SECURITIES

Till the award of the work, JV firm/Lead Partner of JV firm shall furnish Bid Security to the Client on behalf of the joint venture which shall be legally binding on all the members of the Joint Venture.

9. BID SUBMISSION

Each Party shall bear its own cost and expenses for preparation and submission of the bid and all costs until conclusion of a contract with the Client for the Project. Common expenses shall be shared by all the parties in the ratio of their actual participation.

10. INDEMNITY

Each party hereto agrees to indemnify the other party against its respective parts in case of breach/default of the respective party of the contract works of any liabilities sustained by the Joint Venture.

11. For the execution of the respective portions of works, the parties shall make their own arrangements to bring the required finance, plants and equipment, materials, manpowered the sources.

12. DOCUMENTS & CONFIDENTIALITY

Each Party shall maintain in confidence and not use for any purpose related to the Project all commercial and technical information received or generated in the course of preparation and submission of the bid.

13. ARBITRATION

Any dispute, controversy or claim arising out of or relating to this agreement shall be settled in the first instance amicably between the parties. If an amicable settlement cannot be reached as above, it will be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 or any amendments thereof. The venue of the arbitration shall be Delhi.

14. VALIDITY

This Agreement shall remain in force till the occurrence of the earliest to occur of the following, unless by mutual consent, the Parties agree in writing to extend the validity for a further period.

- a. The bid submitted by the Joint Venture is declared unsuccessful, or
- b. Cancellation/ shelving of the Project by the client for any reasons prior to award of work
- c. Execution of detailed JV agreement by the parties, setting out detailed terms after award of work by the Client.

15. This MOU is drawn in number of copies with equal legal strength and status. One copy is held by M/s and the other by M/s.....&M/s

and a copy submitted with the proposal.

16. This MOU shall be construed under the laws of India.

17. NOTICES

Notices shall be given in writing by fax confirmed by registered mail or commercial courier to the following fax numbers and addresses:

Lead Partner

.....

Other Partner(s)

.....

(Name & Address)

(Name & Address)

IN WITNESS WHEREOF THE PARTIES, have executed this MOU the day, month and

year first before written.

M/s.....

.....

(Seal)

Witness

1.....(Name & Address)

2..... (Name & Address)

Notes: (1) In case of existing joint venture, the certified copy of JV Agreement may be finished

DRAFT FORMAT OF JOINT VENTURE AGREEMENT

To be executed on non-judicial stamp paper of appropriate value in accordance with relevant Stamp Act and to be registered with appropriate authority under Registration Act.

The JV agreement shall be structured generally as per contents list given below:

A. CONDITIONS AND TERMS OF JV AGREEMENT

1. Definitions and Interpretation
2. Joint Venture – Include Equity of members, transferability of shareholding of equity of a partner leaving during the subsistence of the contract.
3. Proposal Submission
4. Performance – To indicate scope of responsibility of each member
5. Language and Law
6. Exclusively
7. Executive Authority
8. Documents
9. Personnel
10. Assignment and Third Parties
11. Severability
12. Member in Default
13. Duration of the Agreement
1. Liability and sharing of risks
1. Insurance
2. Sharing of Promotion and Project Costs, Profits, Losses and Remuneration
3. Financial Administration and Accounting
4. Guarantees and Bonds
5. Arbitration
6. Notices
7. Sole Agreement and Variation

B. SCHEDULES

1. Project and Agreement Particulars
2. Financial Administration Services
3. Allocation of the obligations
4. Financial Policy and Remuneration

**PROFORMA LETTER OF PARTICIPATION FROM EACH PARTNER OF JOINT VENTURE
(JV)**

(To be executed on non-judicial stamp paper of appropriate value in accordance with relevant Stamp Act and to be registered with appropriate authority under Registration Act.)

No....

Dated

From:

.....

To,

Chief General Manager/DDU, DFCCIL**Dedicated Freight Corridor Corporation of India Limited**

Manas Nagar Railway Colony, Pt Deen Dayal Upadhyay Nagar (Mughalsarai),

Chandauli -232101, Uttar Pradesh, India

Sir,

Re: ...*"[Insert name of work]....."*.

Ref: Your notice for Invitation for Bid (IFB) No.dated.....

1. We wish to confirm that our company/firm has formed a Joint Venture with (i).....& ii)..... for the purposes associated with IFB referred to above.

(Members who are not the lead partner of the JV should add the following paragraph).*

2. 'The JV is led by.....whom we hereby authorize to act on our behalf for the purposes of submission of Bid for.....and authorize to incur liabilities and receive instructions for and on behalf of any and all the partners or constituents of the Joint Venture.'

OR

*(Member(s) being the lead member of the group should add the following paragraph)**

2. 'In this group we act as leader and, for the purposes of applying for Bid, represent the Joint Venture:
3. In the event of our JV being awarded the contract, we agree to be jointly with i)..... & ii).....(names of other members of our JV) and severally liable to the Dedicated Freight Corridor Corporation of India Limited, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by the contract subsequently entered into between Dedicated Freight Corridor Corporation of India Limited and our JV.
4. ***I/We, further agree that entire execution of the contract shall be carried out exclusively through the lead partner.**

Yours faithfully,

(Signature)

(Name of Signatory).....

(Capacity of Signatory).....

Company Seal

* Delete as applicable

Note: In case of existing joint venture, the certified copy of JV Agreement maybe furnished.

**FORMAT FOR POWER OF ATTORNEY FOR AUTHORISED SIGNATORY OF JOINT
VENTURE (JV) PARTNERS**

POWER OF ATTORNEY*

***(To be executed on non-judicial stamp paper of the appropriate value in
accordance with relevant stamp Act. The stamp paper to be in the name of the
company who is issuing the power of Attorney)***

Know all men by these presents, we ... do hereby constitute, appoint and authorize Mr/Ms.....who is presently employed with us and holding the position ofas our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the work of ... [Name of Work] including signing and submission of all documents and providing information / responses to Dedicated Freight Corridor Corporation of India Limited, representing us in all matters, dealing with Dedicated Freight Corridor Corporation of India Limited in all matters in connection with our bid for the said project.

We here by agree to ratify all acts, deed sand things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this the.....day of.....

(Signature of authorised Signatory)

Signature of Lead Partner

Signature of JV Partner(s)

.....

.....

(Signature and Name in Block letters of Signatory)

Seal of Company

Witness

Witness1:

Name:

Address:

Occupation:

Witness2:

Name:

Address:

Occupation:

***Notes:**

- i) To be executed by all the partners jointly, in case of a Joint Venture.

**FORMAT FOR POWER OF ATTORNEY TO LEAD
PARTNER OF JOINT VENTURE (JV)**

***(To be executed on non-judicial stamp paper of the appropriate value in
accordance with relevant stamp Act. The stamp paper to be in the name of the
company who is issuing the power of Attorney)***

POWER OF ATTORNEY*

Whereas Dedicated Freight Corridor Corporation of India Limited has invited Bids for the work of[Name of Work]

Whereas, the members of the Joint Venture comprising of M/s....., M/s....., M/s., and M/s..... are interested in submission of bid for the work of...[Insert name of work] in accordance with the terms and conditions contained in the bidding documents.

Whereas, it is necessary for the members of the Joint Venture to designate one of them as the Lead Partner, with all necessary power and authority to do, for and on behalf of the Joint Venture, all acts, deeds and things as may be necessary in connection with the Joint Venture's bid for the project, as may be necessary in connection the Joint Venture's bid for the project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT:

We, M/s....., hereby designate M/s....., being one of the partners of the Joint Venture, as the lead partner of the Joint Venture, to do on behalf of the Joint Venture, all or any of the acts, deeds or things necessary or incidental to the Joint Venture's bid for the contract, including submission of bid, participating in conferences, responding to queries, submission of information/document sand generally to represent the Joint Venture in all its dealings with the Railway / DFCCIL or any other Government Agency or any person, in connection with the Bid/contract for the said work until culmination of the process of bidding till the contract agreement if successful, is entered into with the Dedicated Freight Corridor Corporation of India Limited and thereafter till the expiry of the contract agreement.

**To be executed by all the members of the JV except the lead member.*

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

We hereby agree to ratify all acts, deeds and things lawfully one by lead member, our said attorney, pursuant to this power of attorney and that all acts deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us/Joint Venture.

Dated this the..... Day of.....2020

.....
(Signature)

..... (Name in
Block letters of Executants) Seal of
Company

Witness 1	
Name:	
Address:	
Occupation:	
Witness 2	
Name:	
Address:	
Occupation:	

PROFORMA FOR TIME EXTENSION

No. _____ Dated : _____

Sub : (i) _____ (name of work).

(ii) Acceptance letter no. _____

(iii) Understanding/Agreement no. _____

Ref: _____ (Quote specific application of Contractor for extension to the date received) _____

Dear Sir,

1. The stipulated date for completion of the work mentioned above is _____. From the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or 'However, the work was not completed on this date').
2. Expecting that you may be able to complete the work, if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____.
3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _____ (give here the stipulated date for completion with/without any penalty fixed earlier) will be recovered from you as mentioned in Clause, 17-B of the Standard General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.
4. The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.
5. Please intimate within a week of the receipt of this letter your acceptance of the extension of the conditions stated above.
6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting upto this extension to complete the work by _____ (here mention the extended date), further action will be taken in terms of Clause 62 of the Standard General Conditions of Contract.

Yours faithfully,

For and on behalf of the Employer

Name of the Official:-

Stamp/Seal of the Employer

CERTIFICATE OF FITNESS

1. (a) Serial Number _____
 (b) Date _____
2. Name of person examined _____
 I certify that I have personally examined (name) _____
3. Father's Name: son/daughter of _____ , residing at

4. Sex _____
5. Residence: _____
6. Date of birth, if available, and/or certified age _____
7. Physical fitness _____
8. Identification marks _____
9. Reasons for:
 - (a) refusal to grant certificate, or _____
 - (b) revoking the Certificate _____

Who is desirous of being employed in a factory or on a work requiring manual labour and that his / her age as nearly as can be ascertained from my examination, is _____ years and that he/she is fit for employment in a factory or on a work requiring manual labour as an adult/child.

 Signature or Left Hand
 Thumb Impression of the
 person Examined

 Signature of Certifying Surgeon

Note : In case of physical disability, the exact details of the cause of the physical disability should be clearly stated

PROFORMA OF 7 DAYS NOTICE FOR WORKS AS A WHOLE/ IN PARTS
(DETAILS OF PART OF WORK TO BE MENTIONED)
DFCCIL
(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

1. In spite of repeated instructions to you by the subordinate offices as well as by this office in various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work.
2. Your attention is invited to this office/Chief Engineer's office letter no. _____, dated _____ in reference to your representation, dated _____.
3. As you have failed to abide by the instructions issued to commence the work/to show adequate progress of work you are hereby given 7 days' notice in accordance with Clause 62 of Standard General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the Standard General Conditions of Contract viz. to terminate your Contract and complete the balance work without your participation will be taken.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal

of the Employer

PROFORMA OF 48 HRS NOTICE FOR WHOLE WORK
DFCCIL

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Seven days' notice under Clause 62 of Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.
2. You are hereby given 48 hours' notice in terms of Clause 62 of Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above contract will stand rescinded and the work under this contract will be carried out independently without your participation and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed and consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal of the

Employer

PROFORMA OF 48 HRS NOTICE FOR PART OF THE WORK.....

DFCCIL

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Seven days' notice under Clause 62 of Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work.....(details of part to be mentioned).
2. You are hereby given 48 hours' notice in terms of Clause 62 of Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above part of work(details of part to be mentioned) in contract will be rescinded and the work under this contract will be carried out independently without your participation.
3. Your full Performance Guarantee for the Contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance work being execute through the part terminated contract.
4. The contract value of part terminated contract shall stand reduced to

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal of the

Employer

PROFORMA OF TERMINATION NOTICE
DFCCIL
(Without Prejudice)

No. _____ Dated _____

To
M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

Forty eight hours (48 hrs.) notice was given to you under this office letter of even no.,
dated _____; but you have taken no action to commence the work/show adequate
progress of the work.

Since the period of 48 hours' notice has already expired, the above contract stands rescinded in
terms of Clause 62 of Standard General Conditions of Contract and the balance work under this
contract will be carried out independently without your participation. Your participation as well as
participation of every member/partner in any manner as an individual or a partnership firm/JV is
hereby debarred from participation in the tender for executing the balance work and your Security
Deposit shall be forfeited and Performance Guarantee shall also be encashed.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the
Employer

Name of the Official:-
Stamp/Seal of the

Employer

FORM No. 18 (A)
Reference Clause 62.(1) of GCC
Registered Acknowledgement Due

PROFORMA OF TERMINATION NOTICE FOR PART OF THE WORK -----
(DETAILS OF PART OF WORK TO BE MENTIONED)
DFCCIL
(Without Prejudice)

No. _____ Dated _____

To
M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

1. Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work.....(details of part of work to be mentioned)
2. Your above part of work in contract.....(details of part of work to be mentioned)stands rescinded in terms of Clause 62 of Standard General Conditions of Contract and the same will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work.
3. Your full Performance Guarantee for the Contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance work being execute through the part terminated contract.
4. The contract value of part terminated contract shall stand reduced to

Kindly acknowledge receipt.

Yours faithfully

Employer

Employer

For and on behalf of the
Name of the Official:-
Stamp/Seal of the

Signature of Tenderer (s) with Seal

**SAMPLE
FORMAT OF BANK GUARANTEE FOR MOBILISATION ADVANCE**

(Clause 1.5.20, Part - I, Chapter - V)

Bank guarantee made on this Between
(hereinafter called “**the Bank**”) of the One Part and Dedicated Freight Corridor Corporation of India Limited. (hereinafter called “**the Employer**”) of the other Part.

WHEREAS Dedicated Freight Corridor Corporation of India Limited has awarded the Contract no..... for “.....” (hereinafter called “**the Contractor**”), having its registered office at

AND WHEREAS vide Clause 1.5.20 of Part - I, Chapter V , Special Conditions of Contract, Mobilization Advance up to ____% (____ percent) of the original contract value of Rs..... is payable to the contractor against Bank Guarantees, the contractor hereby applies for Mobilization Advance of ____% (____ percent) amounting to Rs...../- (Rupees.....) of the Contract Price,

Now, we the undersigned, Bank of, being fully authorized to sign and to incur obligations for and on behalf of and in the name of Bank ofhereby declare that the said Bank will guarantee the Employer the full amount of Rs./- (Rupees.....) as stated above.

We, Bank of, do hereby unconditionally, irrevocably and without demur guarantee and undertake to pay the Employer immediately on demand any or all money payable by the contractor to the extent of Rs./- (Rupees.....) without any demur, reservation, context, recourse or protest and/or without any reference to the contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the contractor on any dispute pending before any court, Tribunal, Arbitrator or any other authority. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable till the Employer discharges this guarantee.

This guarantee is valid till

At any time during the period in which this guarantee still valid of the contractor fails to fulfill its obligation under the Contract, it is understood that the Bank will extend this guarantee under the same condition for the required time on demand by the Employer at the cost of the contractor.

The Guarantee hereinbefore contained shall not be affected by any change in the constitution of the Bank or of the contractor.

The neglect or forbearance of the Employer in enforcement of payment of any money, the payment whereof is intended to be hereby secured or the giving of time by the Employer for the payment hereof shall in no way relieve the Bank of their liability under this Deed.

The expressions “the Employer”, “the Bank” and “the contractor” hereinbefore used shall include their respective successors and assigns.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs...../-
(Rupees.....)

This bank Guarantee shall be valid up to.....

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(date of expiry of Guarantee).

In witness whereof we of the Bank have signed and sealed this Guarantee on theday of being herewith duly authorized.

For and on behalf of the Bank of.....

Signature of Authorized Bank Official

Name

Designation

Stamp/Seal of the bank

Signed, sealed and delivered for and on

Behalf of the bank by the above named

..... in the presence of

Witness 1

Signature

Name

Address

Witness 2

Signature

Name

Address

PRE CONTRACT INTEGRITY PACT**General**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on-----day of the month of----- 20xx, between, on one hand, the DFCCIL acting through Shri ----- Designation of the officer, (hereinafter called the CLIENT, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s----- represented by Shri -----Chief Executive Officer (hereinafter called the "BIDDER/SELLER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second part.

WHEREAS the CLIENT proposes to procure (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) and the [A] is willing to Offer/has offered for stores or works.

WHEREAS the [A] is a private company/ public company/ Government undertaking/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the CLIENT is a PSU performing its functions or behalf of the President of India.

NOW, THEREFOR,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the CLIENT to obtain the desired said (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure [B] by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the CLIENT will commit to prevent corruption, in any form, by its Officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the CLIENT

1. The CLIENT undertakes that no official of the CLIENT, connected directly or indirectly with the [B], will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the [A] either for themselves or for any person, organization or third party related to the [B], in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the [B].
 - 1.1 The CLIENT will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such

information to any particular BIDDER which could afford an advantage to that particular [A] in comparison to other BIDDERS.

- 1.2 All the officials of the CLIENT will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the [A] to the CLIENT with full, and verifiable facts and the same is prima facie found to be correct by the CLIENT, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the CLIENT and such a person shall be debarred from further dealings related to the [B] process. In such a case while an enquiry is being conducted by the CLIENT the proceedings under the [B] would not be stalled.

Commitments of BIDDERS

3. The [A] commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage) in order to secure the [B] contract or in furtherance to secure it and in particular commit itself to the following:-
 - 3.1 The [A] will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission fees, brokerage or inducement to any official of the CLIENT, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the [B] in exchange for any advantage in the bidding, evaluation, contracting and implementation of the [B].
 - 3.2 The [A] further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any Material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CLIENT or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the [B] or any other [B] with the Government for showing or forbearing to show favour or disfavor to any person in relation to the [B] or any other [B] with the Government.
 - 3.3 * [A] shall disclose the name and address of agents and representatives and Indian [A] shall disclose their foreign principals or associates.
 - 3.4 * [A] shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
 - 3.5 The [A] further confirms and declares to the CLIENT that the [A] is the original manufacturer/integrator/authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the CLIENT or any of its functionaries, whether officially or unofficially to the award of the [B] to the [A] nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
 - 3.6 The [A] either while presenting the bid or during pre-contract negotiations or before signing the [B] shall disclose any payments he has made, is committed to or intends

DDU-EN-SSM-RFO-Track-371-2022

to make to officials of the CLIENT or their family members, agents, brokers or any other intermediaries in connection with the [B] and the details of services agreed upon for such payments.

3.7 The [A] will not collude with other parties interested in the [B] to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the [B].

3.8 The [A] will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

3.9 The [A] shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the CLIENT as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The [A] also undertakes to exercise due and adequate care lest any such information is divulged.

3.10 The [A] commits to refrain from giving any complaint directly or through any other manner without Supporting it with full and verifiable facts.

3.11 The [A] shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.12 If the, [A] or any employee of the [A] or any person acting on behalf of the [A], either directly or Indirectly, is a relative of any of the officers of the CLIENT, or alternatively, if any relative of an officer of the CLIENT has financial. Interest/stake in the Bidder's firm, the same shall be disclosed by the [A] at the time of filling of tender.

The term 'relative' for this purpose would be as defined in section 6 of the companies act 1956.

3.13 The [A] shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the CLIENT.

4. Previous Transaction

4.1 The [A] declares that no previous transgression occurred in the last three years immediately before signing of this integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any public sector enterprise in India or any Government department in India that could justify BIDDER's from the tender process.

4.2 The [A] agrees that if it makes incorrect statement on this subject, [A] can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

5.1 The Earnest money/ Bid Security/ Security Deposit/ Retention money/ Performance guarantee shall be as per the provisions of Bid document.

6. Sanctions for Violations

- 6.1 Any breach of the aforesaid provisions by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A]) shall entitle the CLIENT to take all or any one of the following actions, wherever required :-
- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the [A]. However, the proceedings with the other BIDDER(s) would continue.
 - (ii) The earnest money deposit (in pre-contract stage) and/or security Deposit/performance Bond (after the [B] is signed) shall stand forfeited fully and the CLIENT shall not be required to assign any reason therefore.
 - (iii) To immediately cancel the [B], if already signed, without giving any compensation to the [A].
 - (iv) To recover all sums already paid by the CLIENT, and in case of an Indian [A] with interest thereon at 2% higher than the prevailing prime lending rate of state bank of India, while in case of a [A] from the country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to [A] from the CLIENT in connection with any other [B], such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - (v) To encash the advance bank guarantee and performance bond, if furnished by the [A], in order to recover the payments, already made by CLIENT, along with interest.
 - (vi) To cancel all or any other contracts with the [A]. The [A] shall be liable to pay compensation for any loss or damage to the Client resulting from such cancellation/rescission and the client shall be entitled to deduct the amount so payable from the money(s) due to the [A].
 - (vii) To debar the [A] from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the CLIENT.
 - (viii) To recover all sums paid in violation of this pact by [A]) to any middleman or agent or broker with a view to securing [B] the contract.
 - (ix) In cases where irrevocable letters of credit have been received in respect of any [B] signed by the client with the [A], the same shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- 6.2 The client will be entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this pact also on the commission by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A]), of an offence as defined in chapter IX of the Indian penal code, 1860 or prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

- 6.3 The decision of the CLIENT to the effect that a breach of the provisions of this pact has been committed by the [A] shall be final and conclusive on the [A]. However, the [A] can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

- 7.1 The [A] undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/system or sub systems way supplied by [A] to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the [A] to the CLIENT, if the [B] has already been concluded.

8. Independent Monitors

- 8.1 The CLIENT has appointed Independent Monitors (hereinafter referred to as Monitors) for this pact in consultant with the central vigilance commission (Names and addresses of the Monitors to be given)
- 8.2 the task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 8.3 The monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the CLIENT
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the CLIENT including that provided by the BIDOER. The [A] will also grant the Monitor, upon his request and demonstration of a valid Interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be und 'contractual obligation to treat the information and documents of the [A] with confidentiality.
- 8.7 The client will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The monitor will submit a written report to the MD/DFCCIL within 8 to 10 weeks from the date of reference or intimation to him by the CLIENT/BIDDER and, should the occasion arise, submit proposal for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the CLIENT or its agencies shall be entitled to examine all the documents including the Books of Accounts of the [A] and the [A] shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This pact is subject to Indian law. The place of performance and jurisdiction is the seat of the CLIENT.

11. Other Legal Actions

The actions stipulated in this integrity pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

8.1 The validity of this integrity pact shall be from date of its signing and extend upto 5 years or the complete execution of the [B] to the satisfaction of both the CLIENT and the [A] including warranty period, whichever is later. In case [A] is unsuccessful, this integrity pact shall expire after six months from the date of the signing of the [B].

8.2 Should one or several provisions of this pact turn out to be invalid; the remainder of this pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. The parties hereby sign this integrity pact at on

CLIENT

BIDDER

Name of the officer

CHIEF EXECUTIVE OFFICER

Designation

Deptt./Ministry/PSU

Witness

witness

1. 2.

Note:

[A]- To be replaced by BIDDER/Seller/Consultant/Consultancy firm/Service provider as the case was may be

[B]- To be replaced by contract/supply contract/consultancy contract/works contract as the case was may be.

SUMMARY OF INSURANCES
(Clause 1.5.12, Part - I, Chapter - V)

Insurance to be taken by the Contractor

In accordance with the provision of SCC Sub-Clause 1.5.12, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurance set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

A. Insurance against Injuries to Person and Damage to property-

Covering any loss, damage, death or bodily injuries which may occur to any physical property or to any person / animal covering loss and damage to Employer property and Employer's personal.

Amount (In Rs)	Deductible limits (in Rs.)	Parties insured (names)	From	To
Rs. 100 Lakh per occurrence with no limit on the number occurrences	-	Contractor and Employer	Commencement date	Issue of Performance certificate

B. Insurance of Works and Contractor's equipments-

The contractor shall insure to cover loss or damage to works, plants, materials and contractor's documents occurring prior to completion of the work until the date of issue of the Taking-Over Certificate for the Works.

Amount (In Rs)	Deductible limits (in Rs.)	Parties insured (names)	From	To
Full replacement value, including delivery to Site plus 15% of replacement cost	-	Contractor and Employer	Commencement date	Issue of Taking-Over Certificate for the Works

C. Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel. The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

D. Automobile Liability Insurance

Covering use of all vehicles used by the contractor or its sub contractors (whether or not owned by them) in connection with the design, construction testing and commissioning of the facilities under the contract in accordance with statutory requirements.

E. Professional Indemnity Insurance

To cover professional negligence in the design of the works.

Amount (In Rs)	Deductible limits (in Rs.)	Parties insured (names)	From	To
Rs. 50 Lakh	-	Contractor and Employer	Commencement date	Issue of Performance certificate plus 3 years

F. Workers' Compensation

In accordance with the statutory requirement applicable in India.

G. Insurance to be taken by the Employer (DFCCIL)– Nil

**FORMAT FOR AFFIDEVIT TO BE UPLOADED BY TENDERER ALONGWITH THE
TENDER DOCUMENT**

(Clause 1.3.13(iii), Part - I, Chapter - III)

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs. 100/- The stamp paper has to be in the name of the tenderer)**

Tender Notice No.....

Name of Work:.....

I (Name and designation)** appointed as the attorney/authorized signatory of the tenderer (including its constituents),

M/s (hereinafter called the tenderer) for the purpose of the Tender documents for the work of
.....as per the tender No..... of DFCCIL, do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer(s), am/are signing this document after carefully reading the contents.
2. I/we the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the tender document from the website www.ireps.gov.in . I/we have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e evolution of tenders, execution of work of final payment of the contract, the master copy available with the DFCCIL shall be final and binding up me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. **I/we also understand that my/our offer will be evaluated based on the document/credentials submitted along with the offer and same shall be binding upon me/us.**
6. **I/we declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness for the information and documents, submitted by us.**
7. I/we understand that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides banning of business for five year on entire DFCCIL. Further, I/we (insert name of the tenderer)**..... and all my/our constituents understand that my/our offer shall be summarily rejected.

8. I/we also understand that if the certificates submitted by us found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, alongwith forfeiture of EMD/SD and Performance guarantee besides any other provided in the contract including banning of business for five year on entire DFCCIL.

DEPONENT

SEAL AND SIGNATURE

OF THE TENDERER

VERIFICATION

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

DEPONENT

SEAL AND SIGNATURE

OF THE TENDERER

Place:

Dated:

****The contents in Italics are only for guidance purpose. Details as appropriate, are to be filled in suitably by tenderer.**

Attestation before Magistrate/Notary Pubic

FORMAT FOR GURANTEE BONDS**GUARANTEE BOND FOR BEARINGS**

The agreement made this ----- day of ----- Two Thousand Eighteen between M/s-----
 ----- (hereinafter called the Guarantor of the one part) and the Managing Director, Dedicated Freight Corridor Corporation of India Ltd. Acting through General Manager/Co/DDU (hereinafter called the DFCCIL of other part)

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract) dated-----made between the GUARANTOR OF THE ONE part and the **DFCCIL** of the other part, whereby the Guarantor who is the Contractor interalia undertook the work of RFO at “-----

In the said contract the item of ROCKER/ROLLER, POT/PTFE or ELASTOMERIC type of bearings is to be provided and fixed by the Guarantor/Contractor as per the standard specifications and following the basic design requirements as per detailed design report of the DFCCIL. Further the scope of detailed design of the bearings to serve the minimum life of 50 years (to be reckoned from the date after the maintenance period) is within the purview of the Contractor.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said bearings will remain satisfactorily functional for twenty-five years to be reckoned from the date after the maintenance period, prescribed in the contract, expires.

During this period of guarantee, the guarantor shall make good all defects and for that matter shall replace at his risk and cost such elements of the joints i/c cost of installation and fixing of the bearings to the satisfaction of the Engineer-In-Charge, at his cost and he shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-In-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department through some other contractor at the GUARANTOR's cost and risk. The decision of the Engineer-In-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the replacement/rectification or commits breach thereunder, then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the Guarantor in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the DFCCIL, the decision of the Engineer-In-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Guarantor----- and Chief Project Manager, DFCCIL for and on behalf of the Managing Director, DFCCIL on the day, month and year first above written.

Signed, sealed and delivered by Guarantor in the presence of

1.

2.

(Guarantor)

Signed for and on behalf of General Manager, DFCCIL by Dy. C.P.M/DFCCIL, in the presence of

1

2

(Dy. C.P.M)

DESIGN CERTIFICATE**DESIGN CERTIFICATE**

This Design Certificate refers to Submission No. which comprises:

[*Definitive Design and Drawing Submission No.] in respect of : [description of the Works to which the submission refers]

The contents of this submission are scheduled in Section A below.

The documents scheduled in Section B below, for which a Notice of No Objection has been issued, are of relevance to this submission.

DESIGNER'S STATEMENT

We hereby certify that:

- a) the design of the Works, as illustrated and described in the documents scheduled in Section A below, complies with the specifications requirements and [see note 1 below];

- b) the outline designs, design briefs and performance specifications of those elements of the Works as illustrated and described in the documents scheduled in Section A below comply with the specifications requirements and [see note 1 below];
- c) the design of the Works, as illustrated and described in the documents scheduled in Section A below, complies with the Employer's Requirements specifications requirements and [see note 1 below] except in the following respects:
 - (i) (to be completed by Contractor/Designer)
 - (ii) (etc.)
- d) an in-house check has been undertaken and completed to confirm the completeness, adequacy and validity of the design of the Works as illustrated and described in the documents scheduled in Section A below;
- e) all necessary and required approvals relating to the design of the Works, as illustrated and described in the documents scheduled in Section A below, have been obtained and copies of such approvals are annexed in Section C below;
AND (in the case of a submission covering a part of the Works only) :
- f) all effects of the design comprising the submission on the design of adjacent or other parts of the Works have been fully taken into account in the design of those parts.

Signed by 'Authorised Representative'

(for Designer)

Name

Position/ Designation

CONTRACTOR'S CERTIFICATION

This is to certify that all design has been performed utilising the skill and care to be expected of a professionally qualified, competent designer, experienced in work of similar nature and scope. This further certifies that all works relating to the preparation, review, checking and certification of design has been verified by us.

Signed by 'Authorised Representative' (for Contractor)

Name

Position/Designation

Date

Note 1

The Contractor shall insert one of the following, as applicable

DESIGN CERTIFICATE

This Design Certificate refers to Submission No. which comprises:

[*Definitive Design and Drawing Submission No.] in respect of : [description of the Works to which the submission refers]

The contents of this submission are scheduled in Section A below.

The documents scheduled in Section B below, for which a Notice of No Objection has been issued, are of relevance to this submission.

DESIGNER'S STATEMENT

We hereby certify that:

- a) the design of the Works, as illustrated and described in the documents scheduled in Section A below, complies with the specifications requirements and [see note 1 below];
- b) the outline designs, design briefs and performance specifications of those elements of the Works as illustrated and described in the documents scheduled in Section A below comply with the specifications requirements and [see note 1 below];
- c) the design of the Works, as illustrated and described in the documents scheduled in Section A below, complies with the Employer's Requirements specifications requirements and [see note 1 below] except in the following respects:
 - (i) (to be completed by Contractor/Designer)
 - (ii) (etc.)
- d) an in-house check has been undertaken and completed to confirm the completeness, adequacy and validity of the design of the Works as illustrated and described in the documents scheduled in Section A below;
- e) all necessary and required approvals relating to the design of the Works, as illustrated and described in the documents scheduled in Section A below, have been obtained and copies of such approvals are annexed in Section C below;
AND (in the case of a submission covering a part of the Works only) :
- f) all effects of the design comprising the submission on the design of adjacent or other parts of the Works have been fully taken into account in the design of those parts.

Signed by 'Authorised Representative'
(for Designer)

Name

Position/ Designation

CONTRACTOR'S CERTIFICATION

This is to certify that all design has been performed utilising the skill and care to be expected of a professionally qualified, competent designer, experienced in work of similar nature and scope. This further certifies that all works relating to the preparation, review, checking and certification of design has been verified by us.

Signed by 'Authorised Representative' (for Contractor)

Name

Position/Designation

Date

Note 1

The Contractor shall insert one of the following, as applicable

FORM-25

FINAL SUPPLEMENTARY AGREEMENT

1. Articles of agreement made this day in the year Between the President of

DDU-EN-SSM-RFO-Track-371-2022

India, acting through the Railway Administration having his office at Herein after called the Railway of the one part and of the second part.

2. Whereas the party hereto of the second part executed an agreement with the party hereto of the first part being agreement Numberdated For the performance herein after called the 'Principal Agreement'.
3. And whereas it was agreed by and between the parties hereto that works would be completed by the party hereto of the second part on date last extended and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part.
4. And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to Rs. including the final Bill bearing voucher No. Datedof valueduly adjusted as per price variation clause, if applicable (the receipt of which is hereby acknowledged by the party hereto of the second part in full and final settlement of all his/its claims under the principal agreement.

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

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

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

Or

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

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

Now, it is hereby agreed by and between the parties in the consideration of sums already paid through various On Account Bills and sums to be paid through Final Bill duly adjusted as per price variation clause (PVC), if applicable, based on accepted final measurements including the Security Deposit by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement.

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

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

Signature of the Contractor/s
President of India

for and on behalf of the

Witnesses

DRAWINGS

**PART V
DRAWINGS**

5.1 General Arrangement Drawings with Key Plan:

S. No.	Between Stations	Span Configuration In 'M'	GENERAL ARRANGEMENT DRAWING No.	REFERENCE DRAWINGS
1.	Sasaram-Ara	1x91.4 m (Open Web Girder, 32.5 MT Loading)	GAD.	<u>CE's Drawing No.</u> <u>ECR/DDU/20-21/RFO/461</u>
2.		2X24.4 m (Composite plate Girder, Welded, 32.5T Loading)	GAD	
3.			Key Plan of RFO Alignment	<u>DFCCIL Drawing No.</u> <u>MGS/EN/SSM</u> <u>RFO/P&P/750/2020</u>

Notes:

1. The General Arrangement Drawings are attached as a part of tender document.
2. These GADs are indicative and for reference only.
3. The Reference Drawings are standard drawings issued by RDSO/DFCCIL. The tenderer shall scrutinize these drawings before tendering and procure a copy of these drawings for use.
4. The work shall be done as per approved final / detailed drawings.

****** END OF BID DOCUMENT ******