

Tender No. DFC\_ADI\_ENG\_ORH\_OCC

For

Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, Ahmedabad.

# (PARTICIPATION THROUGH E-TENDER ONLY)

**Visit:-** www.ireps.gov.in/ itslink at www.dfccil.com (Help Desk of IREPS: 011-23761525)

TENDER DOCUMENT June-2023

# **Employer:**

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
CGM-AHMEDABAD UNIT
(A GOVERNMENT OF INDIA ENTERPRISE)
UNDER MINISTRY OF RAILWAYS

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Tender No. DFC_ADI_ENG_ORH_OCC			
Instructions to bidders for online bidding			
Signature of tenderer (s)			

# Important instructions to Tenderer(s) before submitting their tenders online.

General: - All bidders must note that this being E-tender, bids received only through online on E-tendering portal http://www.ireps.gov.in shall be considered as a valid offer. Any bid submitted in paper form will not be received and opened and shall be summarily rejected. E-tendering site-https://www.ireps.gov.in / its link at www.dfccil.com (Help desk of IREPS: 011 -23761525). The tenderer/bidders must have Class-III Digital Signature Certificate & must be register on IREPS portal. Only registered tenderer/bidders can participate on e-Tendering. All relevant documents must be uploaded at the time of participating in e-Tendering.

The bidder must ensure that the tender document submission before the closing time as the tender submission shall stop accepting the offer at prescribed date and time.

## 1. Online Bidding Methodology:

Online Bid System

# 2. Broad outline of activities from Bidders perspective:-

- a. Procure a Digital Signing Certificate (DSC)
- b. Register on Electronic Tendering System (ETS)
- c. Create Users and assign roles on ETS
- d. View Notice Inviting Tender (NIT) on (ETS)
- e. Download Official copy of Tender Documents from ETS.
- f. Clarification to Tender Documents on ETS Query to DFCCIL (Optional) view response to queries posted by DFCCIL through addenda.
- g. Bid Submission on ETS: Prepare & arrange all documents/paper for submission of bid online and tender fees deposit through E-Payment gateway.
- h. Attend Public Online Tender Opening Event (TOE) on ETS.
- i. 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.

#### 3. Digital Certificate:

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 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 Authority (CCA) (refer http://www.cca.gov.in).

#### 4. Registration:

The Tender documents can be downloaded from the website: https://www.ireps.gov.in and to be submitted in the e - format. Cost of the Tender Documents and EMD have to be submitted only through online payment modes available on IREPS portal like net banking, debit card, credit card etc. Manual payments through Demand draft, Banker's cheque, Deposit receipts, FDR etc. are not allowed. Payments against this tender towards tender document cost and earnest money are to be deposited /submitted before the schedule date & time of submission of the tender otherwise the Bid will not be considered. Amendments, if any, to the tender document will be notified in the above website as and when such amendments are notified. It is the responsibility of the bidders who have downloaded the tender documents from the website to keep themselves abreast of such amendments before submitting the tender documents.

Intending bidders are requested to register themselves on IREPS portal through https://www.ireps.gov.in for obtaining User ID and Password by paying Vendor registration fee and processing fee for participating in the above-mentioned tender.

"Vender Manual" containing the detailed guidelines for E-Tendering is available on www.ireps.gov.in

# DFCCIL has decided to use process of E- Tendering for inviting this tender and thus the physical copy of the tender documents would not be sold/ accepted.

- i) Amendments, if any, to the tender document will be notified in the above website as and when such amendments are to be notified. It is the responsibility of the Tenderer who has downloaded the tender documents from the website to keep themselves abreast of such amendments and attach all the addendum/addenda/corrigendum/corrigenda (if any) duly signed along with the submission of the tender documents.
- To participate in the E-bid submission, it is mandatory for the Bidders to get themselves registered with the IREPS (www.ireps.gov.in) and to have User ID and Password.

#### 6. Bank Account Details of DFCCIL

Name	CGM DFCCIL, Ahmedabad
Bank account number	312601010330681
IFSC code	UBIN0546836
Bank Name	Union Bank of India
Bank Branch	Moti Bagh, New Delhi
GST No.	24AACCD4768M1ZB

# 7. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION AS PER BID:-

The bidder shall furnish, as part of his bid document establishing the bidder's eligibility. All these documents should be numbered and should be signed by bidder in each page.

- 7.1 Tender fee & EMD has to be deposited through e-payment only. The tender processing fees as per applicable rate payable through the e-payment gateways to IREPS portal is Non-refundable. Payments against this tender towards tender document cost and earnest money are to be done before the schedule date & time of submission of the tender otherwise the Bid will not be considered.
- 7.2 Each page of the tender papers is to be digitally signed by the tenderers or such person/s on his/their behalf that is/are legally authorized to sign for him / them.
- 7.3 Copy of PAN card.
- 7.4 The authenticated copy of registered partnership deed and registration of the firm from registrar of firm in case of partnership firm.
- 7.5 In case of proprietorship firm bidder will submit an affidavit, attested by Notary Public that "I am a sole proprietor of the firm \_\_\_\_\_\_ in case of \_\_\_\_\_ proprietorship firm on Non judicial stamp paper.
- 7.6 Bidder's profile duly filled in, as per tender document.
- 7.7 Power of Attorney for signing the Application. If applicable, the Power of Attorney for Lead Member of JV;
- 7.8 Article of association and memorandum in case of private/public limited company.
- 7.9 Copy of E.P.F. registration.
- 7.10 Copy of ESI Certificate.
- 7.11 Copy of GST registration no.
- 7.12 Certificate for non near relative in DFCCIL.
- 7.13 Memorandum of Understanding (in case of JV) as per Form-9 (Part-IV, Chapter- II of BID DOCUMENT.)
  - Note: (i) Any discrepancy found in the downloaded tender document submitted by the bidder compared to uploaded tender document, the tender document uploaded by the DFCCIL will be treated as valid and any changes (found in the tender document submitted by the bidder) at any stage, will be treated as fraud done to the DFCCIL, and will be liable to cancellation of agreement done (if any) & appropriate action will be taken against the bidder.
    - (ii) While submitting the Tender Online the Tenderer shall read the terms & conditions and accept the same in order to proceed further to submit their Tender.
- 8. The following "FOUR KEY INSTRUCTIONS for BIDDERS" must be assiduously adhered to:
- 1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
- 2. Register your organization on ETS well in advance of your first tender submission deadline on ETS.
- 3. Get your organization's concerned executives trained on ETS using online training module well in advance of your tender submission deadline on ETS.
- 4. Submit your bids well in advance of tender submission deadline on ETS (DFCCIL should not be responsible for any problem arising out of internet connectivity

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC issues).

#### 9. Modification / Withdrawal of bids:

- (i) The Bidder may modify/ withdraw its e- bid after submission prior to the Bid Due Date & time. No Bid shall be modified / withdrawn by the Applicant on or after the Bid Due Date & time.
- (ii) Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.
- (iii) For modification of e-bid, applicant has to detach its old bid from e-tendering portal and upload / resubmit digitally signed modified bid.
- (iv) For withdrawal of bid, applicant has to click on withdrawal icon at e-tendering portal and can withdraw its e-bid.

#### 10. Method for submission of bid documents

In this TENDER, the Tenderer has to participate in e-Tendering online. Tender Document fee & EMD in respect of e-tendering should accept through net banking or payment gateway only before the schedule date.

**Note**: The Bidder has to upload the Scanned copy of all required above said documents during Online Bid submission.

#### Other instructions

- a) It is recommended that the Tenderer/vendor should visit the portal (ireps.gov.in), peruse the information provided under the relevant links and login to it and upload documents of bid.
- b) 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.
- c) Information as required as per various Forms/Annexures to tender document should be submitted by the tenderers without fail strictly as per formats.

#### 11. 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.

# PART- I Chapter I

# **NOTICE INVITING TENDER**

# PART- I Chapter I

# NOTICE INVITING TENDER E TENDER

Dear Sir,

Name of Work: Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, Ahmedabad.

Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, invites tenders in prescribed forms from firms/ Companies/ Joint Ventures (If Applicable) having requisite experience and financial capacity for execution of the following work:

	Table 1			
S. No.	Name of work	Tender cost ( Rs)	Earnest money (Rs)	Completion Period
1.	Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, Ahmedabad.	4,45,66,875/-	8,91,400/-	7 months

- **1.1.1** 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 and General instruction to tenders (Part-I, Chapter III).
- 2 The tender documents for this work can be downloaded from website <a href="www.ireps.gov.in">www.ireps.gov.in</a>, <a href="www.ireps.gov.in">www.dfccil.com</a>, and Central Procurement Portal, <a href="eprocure.gov.in">eprocure.gov.in</a>. and offer of the same shall be uploaded only in the website <a href="www.ireps.gov.in">www.ireps.gov.in</a>. The tenderers shall carefully study the conditions given below and submit the offers accordingly, failing which the offers are liable to be not considered:
- 3 A master copy of the document downloaded from the website mentioned above shall be kept in the office of the tender inviting authority. In case of any discrepancy between the tender document downloaded from the website and the master copy, the latter shall prevail and shall be binding on the tenderer. The offer received shall be deemed to have been submitted on the document as uploaded and appearing in the website mentioned above whose master copy is kept in the office of the tender inviting authority and the agreement shall also be prepared on the basis of master document kept in the office of tender inviting authority.
- 4 The cost of tender document (tender fee) as mentioned in the notice inviting tender on website www.ireps.gov.in, should be accepted through net banking on payment gateway. The cost of tender document shall not be clubbed with the earnest money deposit. The tenders unaccompanied with the requisite cost of tender documents in

- appropriate form shall not be considered or as per instruction given on website www.ireps.gov.in.
- **5** The tenders shall be filled up after careful study of the documents and the site and any clarification required may be obtained from the tender inviting authority.
- 6 The tenderers downloading the documents from internet must keep themselves updated through the website from which the tender document is downloaded regarding corrigenda, if any, to the notice inviting tender or the tender document, which shall be uploaded in the same website. The offers received without such corrigenda published through website shall be liable to be rejected.
- 7 Any wilful changes/deletion/addition in printing carried out in the tender documents shall be viewed very seriously, whether detected at the time of opening/award of tender or after award of work and the same may result in penal action including banning of further business with the defaulting tenderers. In addition, the tenderers are liable to be prosecuted for the same as per law.
- 8 I/We certified that I/we am/are not black listed or debarred by Railways or any other Ministry/Department of the Government of India/State Government from participation in tenders/contract on the date of opening of tenders/bids.
- **1.1.3** E-Tenders shall be opened online at the time and given date as per NIT.

# Section -2 Instructions to Bidders (ITB)

#### 2.0 SUBMISSION OF E-TENDER: -

- 2.1 Tender Document Obtaining Process
- 2.1.1 It is mandatory for all Tenderers to have Class-III Digital Signature Certified from any of the Licensed Certifying Agencies ('CA') to participate in E-Tendering of DFCCIL, (Tenderer can see the list of Licensed CAs from the link <a href="www.cca.gov.in">www.cca.gov.in</a>), in the name of the person who will submit the Online tender and is authorized to do so.
- **2.1.2** To participate in E-Tender, it is mandatory for Tenderers to get themselves registered with the IREPS (<a href="www.ireps.gov.in">www.ireps.gov.in</a>) and to have User ID and Password.
- **2.1.3** <u>www.ireps.gov.in</u> is the only website for submission of tender. '<u>Vender Manual</u>' containing the detailed guidelines for E-Tendering is available on <u>www.ireps.gov.in</u>.
- 2.1.4 A master copy of the document downloaded from the website mentioned above shall be kept in the office of the tender inviting authority. In case of any discrepancy between the tender document downloaded from the website and the master copy, the latter shall prevail and shall be binding on the tenderer. The offer received shall be deemed to have been submitted on the document as uploaded and appearing in the website mentioned above whose master copy is kept in the office of the tender inviting authority and the agreement shall also be prepared on the basis of master document kept in the office of tender inviting authority.
- 2.2 The tenderers downloading the documents from internet must keep themselves updated through the website from which the tender document is downloaded regarding corrigenda, if any, to the notice inviting tender or the tender document, which shall be uploaded in the same website. The offers received without such corrigenda published through website shall be liable to be rejected.
- 2.3 The cost of tender document (tender fee) as mentioned in the notice inviting tender on website <a href="www.ireps.gov.in">www.ireps.gov.in</a>, should be accepted through net banking on payment gateway. The cost of tender document shall not be clubbed with the earnest money deposit. The tenders unaccompanied with the requisite cost of tender documents in appropriate form shall not be considered or as per instruction given on website <a href="www.ireps.gov.in">www.ireps.gov.in</a>.
  - 2.4 The tenders shall be filled up after careful study of the documents and the site and any clarification required may be obtained from the tender inviting authority.
    - **2.4.1** The detailed instructions of e-tendering can be read through website <a href="https://www.ireps.gov.in">www.ireps.gov.in</a>
    - **2.4.2** The Addendum/Corrigendum, if any; shall be hosted on the website www.ireps.gov.in
    - **2.4.3** The tender will be accepted only in e-tendering mode and no other mode of submission shall be accepted.

- **2.4.4** The supporting documents for all Eligibility Criteria, JV (If applicable) etc. are essentially required to be uploaded on the website www.ireps.gov.in.
- 2.4.5 Tenderers are required to give Un-Conditional Offers. A Conditional Offer is liable to be rejected. DFCCIL reserves the right to modify, expand, restrict, scrap, reject and re-float tender without assigning any reasons whatsoever.
- 2.5 The Tenderers shall closely peruse all the clauses, instructions, terms and conditions, scope of work, specification etc. as indicated in the Tender Document before quoting the offer.
- 2.6 Bid Document shall be accompanied by all the documents required to be submitted as specified in the Tender Document along with all Addendums and Corrigendum.
- 2.7 All Bids shall be submitted in accordance with the instructions contained in the Tender Document (Bid Document). Non-compliance of any of the instructions contained in the Tender Document is liable in Bid being rejected.
- 2.8 After award of contract to the Successful Contractor, if it is observed that there is any discrepancy or ambiguity about any terms and conditions mentioned in the Tender Document, the interpretation of same given by DFCCIL shall be considered as final and binding.
- **2.9** Contractor may visit the site on any working day to assess the Scope of Work before submitting their offer.
- **2.10** Completed tender documents should be uploaded on or before the date and time of closing of tender specified in the NIT and tender document.
- 2.11 Any tender received without Earnest money and cost of tender documents in the form as specified in the tender documents shall not be considered and shall be summarily rejected.
- 2.12 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.
- 2.13 Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such tenderers shall be forfeited. The decision of DFCCIL in this regards shall be final and binding.
- **2.14** Information as required as per various Forms to tender document should be submitted by the tenderers without fail strictly as per formats provided.
- 2.15 The validity of offer shall be 60 days from the date of opening of the tender.

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# PART - I Chapter II

# **GENERAL INFORMATION / DATA SHEET**

# $Tender\ No.\ DFC\_ADI\_ENG\_ORH\_OCC$

# PART - I Chapter II GENERAL INFORMATION/DATA SHEET

GENERAL INFORMATION/DATA SHEET			
TENDER NOTICE NO.	DFC_ADI_ENG_ORH_OCC		
Name of the work	Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, Ahmedabad.		
Tender Value	Rs. 4,45,66,875/-		
Completion Period	7 months		
Earnest Money	Rs. 8,91,400/-		
Cost of Tender Document	Rs. 11800/- (10,000 + 18% GST)  Rs. 10,000/- (Rs. Ten Thousand only) + 18 % GST 11,800/- to be paid online through payment gateway provided at <a href="https://www.ireps.gov.in">www.ireps.gov.in</a> payable in favour of "Dedicated Freight Corridor Corporation of India Limited, Ahmedabad"		
Bidding Start Date	23.06.2023		
Bidding closing Date and Time	07.07.2023 up to 15:00 Hrs		
E-Tendering Web site Address:	www.ireps.gov.in www.ireps.gov.in/ itslink at www.dfccil.com (Help Desk of IREPS : 011-23761525) For any clarification, help and registration for E- Tendering & matter relating to Digital Signature, contact at Help Desk.		
Validity of offer	60 days		
Security Deposit	5 % of Contract Value		
Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 21(thirty) days from the date of issue of Letter Of Acceptance (LOA), amounting to 3% of the contract value in the form as give in clause 16.(4) of GCC.		
Office Address	Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat		

# PART- I Chapter- III

# PREAMBLE & GENERAL INSTRUCTION TO TENDERERS

#### PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS

#### 1.3.1 Introduction

#### (i) General

Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), a public sector under taking 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) Dedicated Freight Corridor

Eastern DFC Route will be approximately 1839 Km long from Dankuni to Ludhiana via Dankuni – Asansole – Dhanbad – Gaya – Sonnagar - Mughalsarai - Allahabad - Kanpur - Tundla - Aligarh - Khurja - Bulandshahr – Meerut – Saharanpur – Ambala - Ludhiana.

Western DFC Route will be approximately 1520 Km long from Dadri to JNPT via Rewai – Iqbalgarh - Vadodara- JNPT.

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. Level Crossings (LC's) are generally unsafe locations and also a congestion points for road/rail"s users. These LC's are operational bottlenecks for Railways /DFCCIL in terms of loss in punctuality and reduction in line capacity..

# (iii) Scope of Work

On behalf of MD DFCCIL, Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, herein after referred to as 'DFCCIL' is inviting e-tenders from Firms/ Companies/Joint Ventures having requisite experience and financial capacity for execution of the following work:

"Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, Ahmedabad."

- (a) The proposed work for construction of Officer Rest House (ORH) as per approved drawing, design, specification and as instructed by representative of DFCCIL i.e. Executive/JPM/Dy.PM/PM of the section.
- (b) It is proposed to construct Officer rest house of approximate 800 to 900 Sqm. built up area Ground + 2 floors as per drawing attached on available 40X11m. size of land at CGM office DFCCIL Ahmedabad.
- (c) Ground floor will be of Conference Hall, Reception, Care taker room etc.

- (d) Two suit rooms shall be planned at First floor and 4 rooms with attached toilet shall be planned at second floor.
- (e) There will be provision of minimum 6 person capacity lift with spacious stair case.
- (f) All room having sufficient capacity of AC, provision of internet, telecom facilities proper CCTV arrangement etc.
- (g) Latest sanitary fittings to be provided. And allied works related to complete the ORH.
- (h) Scope of work is as per the requirements given as per Drawing/ Plans/ Design etc. however, DFCCIL reserves right to addition/alteration at their own discretion without assigning any reason and contractor is bound to carry out the work.
- (iv) Cost of the work: The estimated cost of the work is shown as per NIT which includes GST Rs. 4,45,66,875/- (Including GST)
- (v) The tenderer shall be governed by General Conditions of Contract (GCC), Preamble and 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, decision of DFCCIL in this connection shall be final and binding to contract.
  - 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 shall be executed in the jurisdiction of Chief General Manager/DFCCIL/Ahmedabad Unit. However, DFCCIL reserves right to change the site of work anywhere in adjacent / adjoining area of the work defined in Para 1.3.1 (iii) above 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:-

#### 1.3.2(b) Form of Tender

The Tender documents shall be in single packet system.

# **DFCCIL RAILWAY**

# **TENDER FORM (First Sheet)**

Tender No.
Name of Work
To The Chief General Manager, DFCCIL, Ahmedabad Acting through the Railway
I/We have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this offer open for acceptance for a period of days from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for DFCCIL, at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects within months from the date of issue of letter of acceptance of the tender.
2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Standard Schedule of Rates (SSOR), DSR Vol-I & Vol-II and it's specification with all correction slips up-to-date for the present contract.
3. A Bid Security of Rs has already been deposited online/ submitted as Bank Guarantee bond. Full value of the Bid Security shall stand forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:  (a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
(b) I/We do not execute the contract documents within seven days after receipt of notice issued by the DFCCIL that such documents are ready; and
(c) I/We do not commence the work within fifteen days after receipt of orders to that effect.
4. (a) I/We am/are a Startup firm registered by Department of Industrial Policy and Promotion (DIPP) and my registration number is valid upto (Copy enclosed) and hence exempted from submission of Bid Security.
5. We are a Labour Cooperative Society and our Registration No. is withand hence required to deposit only 50% of Bid Security.

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6. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

Signature of Witnesses:	
(1)	Signature of Tenderer(s)
(2)	Date
	Address of the Tenderer(s)

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC TENDER FORM (Second Sheet)

- 1. **Instructions to Tenderers and Conditions of Tender**: The following documents form part of Tender / Contract:
  - a) Tender Forms
  - b) Special Conditions/Specifications (enclosed)
  - c) Schedule of approximate quantities (enclosed)
  - d) Standard General Conditions of Contract-2022 of Indian Railways and Standard Specifications (Works and Materials) of CPWD-2019 as amended/corrected upto latest correction slips are to be followed.
  - e) CPWD Delhi Schedule of Rates (Vol-I & Vol-II) of 2021, Delhi Schedule of Rates (E&M)-2022, SOR 2022-23 R&B Electrical works as amended / corrected upto latest correction slips are to be followed.
  - f) All general and detailed drawings pertaining to this work which will be issued by the Engineer/DFCCIL or his representatives (from time to time).
- 2. The Tenderer(s) shall quote his / their rates as a percentage above or below the Schedule of Rates of Tender and must tender for all the items shown in the Schedule of approximate quantities attached. The quantities shown in the attached Schedule are given as a guide and are approximate only and are subject to variation according to the needs of the DFCCIL. The DFCCIL does not guarantee work under each item of the Schedule. The tenderer(s) shall quote rates / rebates only at specified place in online financial Bid. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be summarily ignored and will not be considered.
- Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him / them.
- **4.** The works are required to be completed within a period of 7 **months** from the date of issue of acceptance letter.
- 5. Tenders not submitted in the proper Forms are liable to be rejected.

# 6. Documents to be enclosed with the BID -

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 Preamble and General Instructions to	Form No. 2A,2B &2C
(3)	Certificates for authenticity of documents	
(4)	Earnest money in accordance with P Tender Document in case of downloade with Para1.3.4.3 of Preamble and C Tenderers in an envelope.	d tenders in accordance
(5)	Written confirmation authorizing the sign commit the tenderer and other docume applicable, in accordance with para 1 General Instructions to Tenderers.	ents as per format as
	A copy of the tender documents includir signed by the tenderer in token of his happers carefully shall be attached with the	naving studied the tender
(7)	Summary of Prices, Schedule of Prices & Total Prices	Shall be quoted on www.ireps.gov.in system

# 1.3.3 Tender Document

This tender document consists of following five parts along with Instructions to bidders for online bidding:

PART/CHAPTERS	DESCRIPTION
General	Instructions to bidders for Online bidding
PART – I	
Chapter I	Notice Inviting E-Tender
Chapter II	General Information / Data sheet
Chapter III	Preamble and General Instructions to Tenderers
Chapter IV	General Conditions of Contract
Chapter V	Special Conditions of Contract
PART – II	Technical Specifications
PART – III (A)	Additional Technical Specifications

PART – III (B)	Additional Technical Specifications- II	
PART – IV		
Chapter I	Milestones and Time Schedule	
Chapter II	Tender Forms (including Schedule of Prices)	
PART – V	Drawings	

#### 1.3.4 Sale and Submission of Tender Document

1.3.4.1 The tender documents for this work can be downloaded from website <a href="www.ireps.gov.in">www.ireps.gov.in</a>, <a href="www.ireps.gov.in">www.dfccil.com</a>, and Central Procurement Portal, <a href="eprocure.gov.in">eprocure.gov.in</a>. and offer of the same shall be uploaded in the website <a href="www.ireps.gov.in">www.ireps.gov.in</a>. Amendment(s) (if any) will be uploaded on above mentioned websites. For submitting the tender, the Tender documents and amendment(s) can be downloaded from the www.ireps.gov.in by the registered tenderers only.

## 1.3.4.2 Clause applicable for tender documents downloaded from Internet

Tenderer/s is free to download tender documents at their own cost, for the purpose of perusal as well as for using the same as tender document for submitting their offer. Master copy of the tender document will be available in the <u>Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat.</u> 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 the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat 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 submission of 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 mentioned in NIT. The cost of the tender document shall be deposited through e-payment mode at www.ireps.gov.in only. In case, the cost of the tender document as detailed above is not deposited, 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 Notice Inviting E-Tender.
- **1.3.4.5** Tender Document 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 offer (after filling the rates) should neither be scanned & uploaded, nor, the hard copy of the same should be submitted.

#### 1.3.4.6 Deleted

**1.3.4.7** Each page of the tender papers is to be digitally signed 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 –

- (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 and that the quoted rates by tenderer in tender forms are adequate and all-inclusive in item of Taxes, Duties & Levies etc. in terms of General/Special Conditions of Contract for the completion of works to the entire satisfaction of the Employer.
- Tenderers will examine the various provisions of the Central Goods and Services (ii) 2017(CGST)/Integrated Act. Goods and Services Tax Act. Territory 2017(IGST)/Union 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.
- 1.3.4.9 Tenders containing erasures and/or alteration of the tender documents are liable to be rejected.
  1.3.4.9.1 All communication between the Employer and the tenderer shall be in writing. For the purposes of seeking clarification, the Employer's address is:
  - Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat. Electronic mail address: <a href="mailto:cgmdfcadi@gmail.com">cgmdfcadi@gmail.com</a>
- 1.3.4.10 Tenderers are required to give Un-Conditional offers. A Conditional Offer is liable to be rejected. DFCCIL reserves the right to modify, expand, restrict, cancel, reject and re-float tender without assigning any reasons whatsoever.
- 1.3.4.11 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.
- 1.3.4.12 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 Notice Inviting E-Tender as per IREPS.
- (b) After the opening of tender documents of all the tenderers, these bids shall be scrutinized and analysed. 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 short listed.
- (c) The earnest money of non-qualifying tenderers will be returned back within a reasonable period.

#### 1.3.6 Documents to be Submitted Along with Tender

- 1.3.6.1 The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / Company / Joint Venture (JV) / Registered Society / Registered Trust / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.
- 1.3.6.2 Following documents shall be submitted by the tenderer:

## (a) Sole Proprietorship Firm:

(i) All documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

#### (b) HUF:

- (i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.
- (ii) All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

#### (c) Partnership Firm:

(i) All documents as mentioned in para 1.3.33 of the Preamble and General Instruction to Tenderers Part I, Chapter III.

#### (d) Joint Venture (JV):

All documents as mentioned in para 1.3.32 of the Preamble and General Instruction to Tenderers Part I, Chapter III.

## (e) Company registered under Companies Act 2013:

- (i) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
- (ii) A copy of Certificate of Incorporation

- (iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender on behalf of the company and create liability against the company.
- (iv) All other documents in terms Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

# (f) LLP (Limited Liability Partnership):

- (i) A copy of LLP Agreement
- (ii) A copy of Certificate of Incorporation
- (iii) A copy of Power of Attorney/Authorization issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP.
- (iv) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- (v) All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

## (g) Registered Society & Registered Trust:

- (i) A copy of Certificate of Registration
- (ii) A copy of Memorandum of Association of Society/Trust Deed
- (iii) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.
- (iv) A copy of Rules & Regulations of the Society
- (v) All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.
- 1.3.6.3 If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.
- 1.3.6.4 After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF/LLP etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in Railway's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.
- 1.3.6.5 A tender from JV shall be considered only where permissible as per the tender conditions.
- 1.3.6.6 The DFCCIL will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. DFCCIL may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

The tenderer whether sole proprietor / a company or a partnership firm / joint venture (JV) / registered society / registered trust / HUF / LLP etc if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly

stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, specifically authorizing him/them to sign the tender, submit the tender and further to deal with the Tender/ Contract up to the stage of signing the agreement except in case where such specific person is authorized for above purposes through a provision made in the partnership deed / Memorandum of Understanding / Article of Association /Board resolution, failing which tender shall be summarily rejected.

A separate power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, shall be submitted after award of work, specifically authorizing him/them to deal with all other contractual activities subsequent to signing of agreement, if required.

Note: A Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate.

# 1.3.7 Validity of Tender:-

Tenderer shall keep his offer open as mentioned in the Tender Notice.

# 1.3.8 Bid Security:

(1) (a) The tenderer shall be required to submit the Bid Security with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender.

#### Note:

- (i) The Bid Security shall be rounded off to the nearest Rs. 100. This Bid Security shall be applicable for all modes of tendering.
- (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.
- (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- (b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.
- (c) If his tender is accepted, this Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the General Conditions of Contract, Part-I Chapter IV. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.
- (2) The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall

- be as per Form No. 26 and shall be valid for a period of 90days beyond the bid validity period.
- (3) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:
- i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
- ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within 5 working days of deadline of submission of bids.
- iii. Non submission of scanned copy of Bank Guarantee with the bid on etendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
- iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
- v. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected.
- vi. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification "Bid for the \*\*\*\*\* Project" and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
- vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.
- viii. If the envelope is not sealed and marked as instructed above, the DFCCIL assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.
- 1.3.9.1 Right of DFCCIL to Deal with Tenders: 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 reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by DFCCIL administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.
- 1.3.9.2 Clarification of Bids: To assist in the examination, evaluation & comparison and prequalification of the Tender, the DFCCIL may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the DFCCIL shall not be entertained or considered. The DFCCIL request for clarification and the response of the bidder in this regard shall be in writing.

However, if a Bidder does not provide clarification of its bid by the date and time communicated in the DFCCIL request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.

# 1.3.9.3 Execution of Contract Agreement:-

The Tenderer whose tender is accepted shall be required to appear in person at the Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from DFCCIL that the Contract Agreement is ready. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by DFCCIL only after submission of valid Performance Guarantee by the Contractor. In such cases the DFCCIL may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the DFCCIL shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in the re-tender for that work.

#### 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 Rights of DFCCIL to Deal with Tenders

- a. 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.
- b. If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the DFCCIL reserves the right to reject such tender at any stage.
- c. If any partner(s) of a partnership firm expires after the submission of its

tender or after the acceptance of its tender, the DFCCIL shall deem such tender as cancelled/contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its character as per partnership agreement. If a sole proprietor expires after the submission of tender or after the acceptance of tender, the DFCCIL shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

## 1.3.13(i) Eligibility Criteria:

- (A). Technical Eligibility Criteria:
- (a) The tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:
  - (i) Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or
  - (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or
  - (iii) One similar work costing not less than the amount equal to 60% of advertised value of the tender.

# Similar works means "Construction of any Building Work".

- (b) (1) In case of tenders for composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges substructure, superstructure etc.), tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:
  - (i) Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or
  - (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or
  - (iii) One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.
- Note for (b) (1): Separate completed works of minimum required values shall also be considered for fulfilment of technical eligibility criteria for different components.
- (b) (2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity.
- (b) (3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in para 1.3.9.1 of the Preamble

and General Instruction to Tenderers through subcontractor fulfilling the requirements as per Para 1.3.9.1 or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief General Manager/General Manager in writing.

However, if required in tender documents by way of Special Conditions, a formal agreement duly notarised, legally enforceable in the court of law, shall be executed by the main contractor with the subcontractor for the component(s) of work proposed to be executed by the subcontractor(s), and shall be submitted along with the offer for considering subletting of that scope of work towards fulfilment of technical eligibility. Such subcontractor must fulfil technical eligibility criteria as follows:

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted, in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract.

Note: for subletting of work costing up to Rs. 50 lakh, no previous work experience of subcontractor shall be asked for by the DFCCIL/Railway.

In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per Para 1.3.9.1, with prior approval of GM/Dy.CPM/DFCCIL in writing.

#### Note for Item (A):

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

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

#### (B) Financial Eligibility Criteria: (ACS-1 dt. 14.07.2022)

The tenderer must have minimum average annual contractual turnover of V/N or V whichever is less; where

V= Advertised value of the tender in crores of Rupees

N= Number of years prescribed for completion of work for which bids have been invited.

The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

The tenderers shall submit requisite information as per Form No. 2B, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

# (C) Bid Capacity:

The tender/technical bid will be evaluated based on bid capacity formula detailed as Form No. 23.

- (D) No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.
- (E) Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:

The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date or immediately previous date for which rates have been published.

Explanation for Para 1.3.13(i) of the Preamble and General Instruction to Tenderers Part I, Chapter III including Para 1.3.13(i) (A) to 1.3.13(i) (E) – Eligibility Criteria:

- Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.
- 2. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfilment of credentials.
- If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfilment of credentials
- 4. In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill

is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work.

In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.

- 5. If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 1.3.13.(i) (A) Para 1.3.13.(i) of the Preamble and General Instruction to Tenderers Part I, Chapter III, the same shall be considered for the purpose of fulfilment of credentials.
- 6. In case a work is considered similar in nature for fulfilment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
- 7. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3 x 0.2 x Value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
- 8. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm(e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
- 9. In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.
- 10. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.

- 11. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.
- 12. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.
- 13. In a partnership firm "AB" of A&B partners, in case A also works as propriety firm "P" or partner in some other partnership firm "AX", credentials of A in propriety firm "P" or in other partnership firm "AX" earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.
- 14. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.
- 15. In case company A is merged with company B, then company B would get the credentials of company A also.]

#### 1.3.13 (ii) Tenderer Credentials:

Documents testifying tenderer previous experience and financial status should be produced along with the tender.

Tenderer(s) shall submit following along with his / their tender:

- (i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past.
- (ii) Audited Balance Sheet duly certified by the Chartered Accountant regarding contractual payments received in the past.
- (iii) The list of personnel / organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work.
- (iv) A copy of certificate stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the certificate to be submitted by the bidder is enclosed as Form No. 22. Non submission of a copy of certificate by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested / digitally signed by which they/he are/is gualifying the Qualifying Criteria mentioned in the Tender Document.
- (v) 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 rights of the DFCCIL there under.
- (vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to

forfeiture of the tender Bid Security besides banning of business for a period of upto five years.

(b) In case of any information submitted by tenderer is found to be false, forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the DFCCIL shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto five years.

Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

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

- 1. For the works tenders, it has been decided to adopt the certificate based (Form self- attested is required. Signature, Stamp on Each Page). 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 certificate stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the certificate to be submitted by the bidder is enclosed as Form-22. Non submission of a certificate (Form No. 22) 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

#### 1.3.14 Period of Completion

The entire work is required to be completed in all respects within 7 months (Seven 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 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.

#### 1.3.16 Quantum of work and materials:

The indicative schedule of quantities of various items of works shall be available at www.ireps.gov.in.

## 1.3.17 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.

#### 1.3.18 Schedule of Prices

The Summary of prices and schedule of prices shall be available at www.ireps.gov.in.

#### 1.3.19 Performance Guarantee: Refer relevant clause 16.(4) of GCC.

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

#### 1.3.21 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 Nodated	
my original tender shall remain open for acceptance on its original terms and conditions,"	

#### 1.3.22 Pre-Bid Meeting :- Not Applicable.

#### 1.3.23 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 equipment 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.

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

#### 1.3.25 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
  - 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.

#### 1.3.26 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.

#### 1.3.27 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.

#### 1.3.28 Award of Contract

 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.

# 1.3.29 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.

# 1.3.30 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) 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

# 1.3.31 Employment/Partnership etc. of Retired Railway Employees:

#### (a) Should a tenderer

- i) be a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of any of the railways owned and administered by the MD/DFCCIL for the time being, OR
- ii) being partnership firm / joint venture (JV) / registered society / registered trust etc have as one of its partners a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, OR
- iii) being an incorporated company have any such retired Engineer of the gazetted rank or any other gazetted officer working before his retirement as one of its directors .AND

in case where such Engineer or officer had not retired from government service at least 1 year prior to the date of submission of the tender, THEN

the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the MD/DFCCIL or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

(b) In case, upon successful award of contract, should a tenderer depute for

execution of the works under or to deal matters related with this contract, any retired Engineer of gazette rank or retired gazetted officer working before his retirement in the Engineering or any other department of any of the railways owned and administered by the MD/DFCCIL for the time being, and now in his employment, then the tenderer will ensure that retired Engineer or retired gazetted officer had retired from government service at least 1 year prior to the date of his employment with tenderer and in case he had retired from service within a year then he possesses the requisite permission from the MD/DFCCIL or any officer, duly authorized by him in this behalf, to get associated with the tenderer.

(c) Should a tenderer or Contractor being an individual, have member(s) of his family or in the case of partnership firm/ company / joint venture (JV) / registered society / registered trust etc. one or more of his partner(s)/shareholder(s) or member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of the railway, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.

Note:- If information as required above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of Standard General Condition of contract.

# **JOINT VENTURE (JV) IN WORKS TENDERS**

(Participation of Joint Venture firms shall be applicable for tenders of value more than Rs. 10 Crore (Rupees Ten Crore) Each As per Railway Board's letter no. 2002/CE-I/CT/37JV. Pt-VIII dated 14.12.2012)

- 1.3.32 **Participation of Joint Venture (JV) in Works Tender:** This Para shall be applicable for works tenders wherein tender documents provide for the same.
- 1.3.32.1 Separate identity/name shall be given to the Joint Venture.
- 1.3.32.2 Number of members in a JV shall not be more than three, if the work involves only one department (say Civil or S&T or Electrical or Mechanical) and shall not be more than five, if the work involves more than one Department. One of the members of the JV shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV. The other members shall have a share of not less than 20% each in case of JV with upto three members and not less than 10% each in case of JV with more than three members. In case of JV with foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.
- 1.3.32.3 A member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender.
- 1.3.32.4 The tender form shall be purchased and submitted only in the name of the JV and not in the name of any constituent member. The tender form can however be submitted by JV or any of its constituent member or any person authorized by JV through Power of Attorney to submit tender.
- 1.3.32.5 Bid Security shall be submitted by JV or authorized person of JV either as:
  - (i) Cash through e-payment gateway or as mentioned in tender document, or
  - (ii) Bank Guarantee bond either in the name of JV, or in the name of all members of JV as per MOU irrespective of their share in the JV if the JV has not been constituted legally till the date of submission of tender.

- 1.3.32.6 A copy of Memorandum of Understanding (MoU) duly executed by the JV members on a stamp paper, shall be submitted by the JV along with the tender. The complete details of the members of the JV, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.
- 1.3.32.7 Once the tender is submitted, the MoU shall not normally be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Bid Security shall be liable to be forfeited.
- 1.3.32.8 Approval for change of constitution of JV shall be at the sole discretion of the DFCCIL. The constitution of the JV shall not normally be allowed to be modified after submission of the bid by the JV, except when modification becomes inevitable due to succession laws etc., provided further that there is no change in qualification of minimum eligibility criteria by JV after change of composition. However, the Lead Member shall continue to be the Lead Member of the JV. Failure to observe this requirement would render the offer invalid.
- 1.3.32.9 Similarly, after the contract is awarded, the constitution of JV shall not be normally allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 1.3.32.10 On award of contract to a JV, a single Performance Guarantee shall be submitted by the JV as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV and no splitting of guarantees amongst the members of the JV shall be permitted.
- 1.3.32.11 On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same shareholding pattern as was declared in the MOU/JV Agreement submitted along with the tender, shall be got registered before the Registrar of the Companies under 'The Companies Act -2013' (in case JV entity is to be registered as Company) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (in case JV entity is to be registered as Partnership Firm) or under 'The LLP Act 2008' (in case JV entity is to be registered as LLP). A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the DFCCIL before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation within 60 days of issue of LOA, contract is liable to be terminated. In case contract is terminated DFCCIL shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following Clauses:
  - 1.3.32.11.1 Joint and Several Liability Members of the entity to which the contract is awarded, shall be jointly and severally liable to the DFCCIL for execution of the project in accordance with General and Special Conditions of Contract. The members of the entity shall also be liable jointly and severally for the loss, damages caused to the DFCCIL during the course of execution of the contract or due to non-execution of the contract or part thereof.
  - 1.3.32.11.2 Duration of the Registered Entity It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.

- 1.3.32.11.3 Governing Laws The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.
- 1.3.32.12 Authorized Member Joint Venture members in the JV MoU shall authorize Lead member on behalf of the Joint Venture to deal with the tender, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV.
- **1.3.32.13** No member of the Joint Venture shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the DFCCIL in respect of the said tender/contract.
- **1.3.32.14** Documents to be enclosed by the JV along with the tender:
  - 1.3.32.14.1 In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:
    - (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
    - (ii) A copy of consent of all the partners or individual authorized by partnership firm, to enter into the Joint Venture Agreement on a stamp paper,
    - (iii) A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm.
    - (iv) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by DFCCIL or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.
  - 1.3.32.14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:
    - (i) A copy of notarized affidavit on Stamp Paper declaring that his Concern is a proprietary Concern and he is sole proprietor of the Concern OR he who is signing the affidavit on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.
  - 1.3.32.14.3 In case one or more members of the JV is/are companies, the following documents shall be submitted:
    - (i) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,
    - (ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
    - (iii) A copy of Certificate of Incorporation
    - (iv) A copy of Authorization/copy of Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual, to sign the tender, sign MOU/JV Agreement on behalf of the company and create liability against the company.

- 1.3.32.14.4 In case one or more members of the JV is/are LLP firm/s, the following documents shall be submitted:
  - (i) A copy of LLP Agreement.
  - (ii) A copy of Certificate of Incorporation of LLP.
  - (iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement.
  - (iv) A copy of Authorization /copy of Power of Attorney issued by the LLP firm (backed by resolution passed by the Partners) in favour of the individual, to sign the tender and/or sign the MOU/ JV agreement on behalf of the LLP and create liability against the LLP.
  - (v) An undertaking by all partners of the LLP that they are not blacklisted or debarred by DFCCIL/Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- 1.3.32.14.5 In case one or more members of the JV is/are Society/s or Trust/s, the following documents shall be submitted:
  - (i) A copy of Certificate of Registration
  - (ii) A copy of Memorandum of Association of Society/Trust Deed
  - (iii) A copy of Rules & Regulations of the Society
  - (iv) A copy of Power of Attorney, in favour of the individual to sign the tender documents and create liability against the Society/Trust.
- 1.3.32.14.6 All other documents in terms of Para 1.3.13.(i) of the Preamble and General Instruction to Tenderers, Part I, Chapter III above.
- **1.3.32.15** Credentials & Qualifying Criteria: Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfilment of the following criteria:
  - 1.3.32.15.1 Technical Eligibility Criteria ('a' or 'b' mentioned hereunder):
    - (a) For Works without composite components

The technical eligibility for the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall have technical capacity of minimum 10% of the cost of work i.e., each non-lead member of JV member must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of advertised value of the tender.

(b) For works with composite components

The technical eligibility for major component of work as per para 1.3.13.(i)(A)

Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV' and technical eligibility for other component(s) of work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'any member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for any component of the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall have technical capacity of minimum 10% of the cost of any component of work mentioned in technical eligibility criteria. i.e., each other (non-lead) member of must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of cost of any component of work mentioned in technical eligibility criteria.

#### Note for Para 1.3.32.15.1:

- (a) The Major component of the work for this purpose shall be the component of work having highest value. In cases where value of two or more component of work is same, any one work can be classified as Major component of work.
- (b) Value of a completed work done by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned technical eligibility criteria in the tender under consideration.

#### 1.3.32.15.2 Financial Eligibility Criteria

The JV shall satisfy the requirement of "Financial Eligibility" mentioned at para 1.3.13(i)(B) above. The "financial capacity" of the lead member of JV shall not be less than 51% of the financial eligibility criteria mentioned at para 1.3.13(i)(B) above.

The arithmetic sum of individual "financial capacity" of all the members shall be taken as JV's "financial capacity" to satisfy this requirement.

Note: Contractual payment received by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying compliance of the above mentioned financial eligibility criteria in the tender under consideration.

#### 1.3.32.15.3 **Bid Capacity**

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 1.3.13(i)(C) above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement.

# 1.3.33 Participation of Partnership Firms in works tenders:

- 1.3.33.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
- 1.3.33.2 The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized as per the Indian Partnership Act, prior to submission of tender.

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

If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform DFCCIL/Railway beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

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

(a) Joint and several liabilities:

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

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

The partnership deed/partnership firm agreement shall normally not be modified/altered/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of DFCCIL/Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

- (c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.
- (d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the DFCCIL/Railway.
- 1.3.33.10 The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:
  - a. A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
  - b. A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.
  - c. An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by DFCCIL/Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.
  - d. All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

# 1.3.33.11 Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfilment of the eligibility criteria laid down in Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

# PART - I

# **CHAPTER IV**

# GENERAL CONDITIONS OF CONTRACT

# **GENERAL CONDITIONS OF CONTRACT**

#### **DEFINITIONS AND INTERPRETATION**

- 1. (1) Definition: In these General conditions of Contract, the following terms shall have the meaning assigned hereunder except where the context otherwise requires:-
- (a) "Railway" shall mean the President of the Republic of India or the Administrative Officers of the DFCCIL or of the Successor DFCCIL authorized to deal with any matters which these presents are concerned on his behalf.
- (b) "DFCCIL" shall mean Dedicated Freight Corridor Corporation of India Ltd, a Govt. of India Enterprise (under Ministry of Railways) and a company incorporated under the provisions of the Companies Act, 1956 having it's registered office at 5th Floor, Supreme Court Metro Station Complex, New Delhi-110001 represented through its Managing Director or CGM/GM (hereinafter referred to as "DFCCIL") which expression shall, unless repugnant to the context, be deemed to include it's successors and assigns.
- (c) "MD/DFCCIL" shall mean the officer in-charge of the General Superintendence and Control of the DFCCIL (MD) and shall mean and include their successors, of the successor of DFCCIL (hereinafter referred to as "MD/DFCCIL").
- (d) "CGM" shall mean the officer in-charge of the CGM unit of DFCCIL and shall also include GM(Co) of DFCCIL.
- (e) "Engineer" shall mean Dy. CPM/DFCCIL or any other superior official of DFCCIL or PMC appointed by DFCCIL.
- (f) "Engineer's Representative" shall mean the PM/Dy.PM/APM /JPM/Sr. Executive/Executive in direct charge of the work and shall include appointed by the DFCCIL and shall mean and include the Engineer's Representative of the successor DFCCIL.
- (g) "Contractor" shall mean the person / Firm / Company / JV whether incorporated or not who enters into the contract with the DFCCIL and shall include their executors, administrators, and successors and permitted assigns.
- (h) "Contract" shall mean and include the Agreement of Work Order, the accepted Schedule of Rates of IR or the Schedule or Rates of CPWD modified by the tender percentage for items of works quantified, or not quantified, the Standard General Conditions of Contract, the Special Conditions of Contracts, if any; the Drawing, the Specifications, the Special Specifications, if any and Tender Forms, if any and all other documents included as part of contract.

- (i) "Works" shall mean the works to be executed in accordance with the contract.
- (j) "Specifications" shall mean the Specifications for materials and works referred / mentioned in tender documents.
- (k) "Schedule of rates of Railway" shall mean the schedule of rates issued under the authority of the Chief Engineer from time to time and shall also include Rates specified in tender document.

Standard Schedule of Rates (SSOR) shall mean the schedule of Rates adopted by the Railway, which includes-

- (i) "Unified Standard Schedule of Rates of the Railway (USSOR)" i.e. the Standard Schedule of Rates of the Railway issued under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents;
- (ii) "Delhi Schedule Of Rates (DSR)" i.e. the Standard Schedule of Rates published by Director General/ Central Public Works Department, Government of India, New Delhi, as adopted and modified by the Railway under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- (l) "Drawing" shall mean the maps, drawings, plans and tracings or prints there of annexed to the contract and shall include any modifications of such drawings and further drawings as may be issued by the Engineer from time to time.
- (m) "Constructional Plan" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or temporary works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.
- (n) "Temporary Works" shall mean all temporary works of every kind required for the execution completion and/or maintenance of the works.
- (o) "Site" shall mean the lands and other places on, under, in or through which the works are to be carried out and any other lands or places provided by the Railway/DFCCIL for the purpose of the contract.
- (p) "Period of Maintenance" shall mean the defect liability period from the date of completion of the works as certified by the Engineer.
- (q) "Bid" or "Tender", "Bidder" or "Tenderer" wherever appearing in this document shall have the same and interchangeable meaning.
- (r) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.

- (s) "Contractor's authorised engineer" shall mean a graduate engineer having more than 3 years experience in the relevant field of construction work involved in the contract, duly approved by Engineer.
- **1.(2) Singular and Plural**:- Words importing the singular number shall also include the plural and vice versa where the context requires.
- **1.(3) Headings & marginal headings:-**The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

#### **GENERAL OBLIGATION**

- 2. (1) Execution Co-relation and intent of contract Documents:-The contract documents shall be signed in triplicate by the DFCCIL and the Contractor. The contract documents are complementary, and what is called for by any one shall be as binding as if called for by all, the intention of the documents is to include all labour and materials, equipment's and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the DFCCIL to the contractors unless distinctly specified in the contract documents. Materials or works described in words which so applied have a well-known technical or trade meaning shall be held to refer to such recognized standards.
- 2.(2) If a work is transferred from the jurisdiction of one Railway to another Railway or to a Project Authority/ DFCCIL or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the Successor Railway/DFCCIL Project in the same manner & take effect all respects as if the Contractor and the Successor Project were parties there to from the inception and the corresponding officer or the Competent Authority in the Successor Railway/DFCCIL Project will exercise the same powers and enjoy the same authority as conferred to the Predecessor Railway/DFCCIL Project under the original contract/agreement entered into.
- 2.(3) If for administrative or other reasons the contract is transferred to the Successor Railway/Successor Project Authority of DFCCIL the contract shall not withstanding any things contained herein contrary there to, be binding on the Contractor and the Successor Railway /Project Authority / DFCCIL in the same manner and take effect in all respect as if the Contractor and the Successor Railway/ successor Project Authority of DFCCIL had been parties thereto from the date of this contract. The contract shall be Administered/Managed by GGM/GM/Co/ GM nominated by DFCCIL.
- **3. (1) Law governing the contract:-** The contract shall be governed by the law for the time being in force in the Republic of India.
- 3.(2) Compliance to regulations and bye-laws:-The contractor shall conform to the provision of any statute relating to the works and regulations and bylaws of any location authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reasons for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The contractor shall be bound to give all notices required by statute, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

#### 3.(3) Environmental and Forest clearances:

The DFCCIL/Railway represents and warrants that the environmental and forest clearances pertaining to the work commensurate with the progress of work/agreed programme, will be obtained by Engineer. In the event of any delay in securing respective clearances leading to delay in execution of work, the Contractor shall be entitled to Extension of Time for the period of such delay in accordance with the provisions of Clause-17A(ii).

- 4. Communications to be in writing:- All notices, communications, reference and complaints made by the Railway/DFCCIL or the Engineer or the Engineer's Representative or the Contractor inter-se concerning the works shall be in writing or e- mail on registered e-mail IDs i.e. the e mail id provided for correspondence in the contract agreement, otherwise email id registered with IREPS and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized.
- 5. Service of Notices on Contractors:- The contractor shall furnish to the Engineer the name designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the contractor if delivered to the contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post/email or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the contractor to the Engineer.
- 6. Occupation and use of land:- No land belonging to or in the possession of the Railway/DFCCIL shall be occupied by the Contractor without the permission of the Railway/DFCCIL. The Contractor shall not use, or allow to be used; the site for any purposes other than that of executing the works. Whenever non-railway bodies/persons are permitted to use Railway/DFCCIL premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.
- 7. Assignment or subletting of contract: The contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein any manner whatsoever without the special permission in writing of the DFCCIL. Any breach of this condition shall entitle the DFCCIL to rescind the contract under clause 62 of these conditions and also render the contractor liable for payment to the DFCCIL in respect of any loss or damage arising or ensuing from such cancellation. Provided always that execution of the details of the work by petty contractor under the direct and personal supervision of the Contractor or his agent shall not be deemed to be sub-letting under this clause.

In case Contractor intends to subcontract part of work, he shall submit a proposal in writing seeking permission of GM/Dy.CPM/DFCCIL for the same. While submitting the proposal to Railway/DFCCIL, Contractor shall ensure the following:

- (a) ) (i) Total value of work to be assigned to sub-contractor(s) shall not be more than 50% of total contract value.
  - (ii) The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract costing not

less than 35% value of work to be sublette, in last 5 years through a works contract directly given to him by a Govt. Department; or by a Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, registered at least 5 years back from the date of submission of proposal by Contractor to Railway/DFCCIL and work experience certificate issued by a person authorised by the Public Listed Company to issue such certificates.

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract in last 5 years, ending date of submission of proposal by Contractor to Railway/DFCCIL, costing not less than 35% value of work to be subletted, through a works contract. For fulfilment of above, Work Experience Certificate issued by a Govt. Department/Organisation shall be considered. Further, Work Experience Certificate issued by a Public listed company shall be considered provided the company is having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, registered at least 5 years back from the date of submission of proposal by Contractor to Railway/DFCCIL and work experience certificate issued by a person authorised by the Public Listed Company to issue such certificates.

Note: for subletting of work costing up to Rs 50 lakh no previous work experience shall be asked for by the Railway/DFCCIL.

In case contractor submits subcontractor's work experience certificate issued by public listed company, the contractor shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

- (iii) There is no banning of business with the sub-contractor in force over IR.
- (b) The Contractor shall provide to the Engineer a copy of the agreement to be entered into by Contractor with subcontractor. No subcontractor shall be permitted without a formal agreement between Contractor and subcontractor. This agreement shall clearly define the scope of work to be carried out by subcontractor and the terms of payment in clear & unambiguous manner.
- (c) On receipt of approval from GM/Dy.CPM/DFCCIL, Contractor shall enter into a formal agreement legally enforceable in Court of Law with subcontractor and submit a copy of the same to the Engineer.
- (d) The Contractor shall intimate to the Engineer not less than 7 days in advance, the intended date of commencement of subcontractor's work.
- (e) Once having entered into above arrangement, Contractor shall discontinue such arrangement, if he intends to do so at his own or on

- the instructions of Railway/DFCCIL, with prior intimation to GM/Dy.CPM/DFCCIL.
- (f) The Contractor shall indemnify Railway /DFCCIL against any claim of subcontractor.
- (g) The Contractor shall release payment to the Sub-contractor(s) promptly and shall endeavour to resolve all issues amicably and speedily with the Sub-contractor(s), so that the execution of work is not affected in any manner whatsoever.
- (h) In addition to issuance of work experience certificate to Contractor, the Engineer, when, based on documents, is satisfied that subcontracted work has been carried out by subcontractor, shall issue work experience certificate to the subcontractor also for the portion of work subcontracted and successfully completed by the sub-contractor.
- (i) The responsibility of successful completion of work by subcontractor shall lie with Contractor. Subcontracting will in no way relieve the Contractor to execute the work as per terms of the Contract.
- (j) Further, in case Engineer is of the view that subcontractor's performance is not satisfactory, he may instruct the Contractor to remove the subcontractor from the work and Contractor has to comply with the above instructions with due promptness. Contractor shall intimate the actual date of discontinuation of subcontract to Engineer. No claim of Contractor whatsoever on this account shall be entertained by the Railway/DFCCIL and this shall be deemed as "excepted matter" (matter not arbitrable).
- (k) The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub- contractor and the DFCCIL and shall not relieve the contractor of any responsibility under the contract.
- 8. Assistance by the DFCCIL for the Stores to be obtained by the Contractor:- Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the DFCCIL may have agreed without any liability therefore to endeavour to obtain or assist the contractor in obtaining the required quantities of such materials as may be specified in the tender. In the event of delay or failure in obtaining the required quantities of the aforesaid material the contractor shall not be deemed absolved of his own responsibility and shall keep in touch with day to day positions regarding their availability and accordingly adjust progress of works including employment of labour and the DFCCIL shall not in any way be liable for the supply of materials or for the non-supply thereof for any reasons whatsoever nor for any lossor damage arising in consequence of such delay or no supply.

#### 9. Deleted

10. Use of Ballast Trains: The Railway/DFCCIL may agree to allow the Contractor use of the ballast or material trains under such conditions as shall be specially prescribed, provided that the Contractor shall pay for the use thereof charges calculated at public tariff rates on the marked carrying capacity of each vehicle subject to specified minimum charge per day or part of day and provided further that the Contractor shall indemnify the Railway/DFCCIL against any claims or damages arising out of the use or misuse thereof and against any liabilities under the Workmen's Compensation Act, 1923 or any statutory amendments thereto.

- 11. Carriage of materials:- No forwarding orders shall be issued by the DFCCIL for the conveyance of contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight charges at public tariff rates therefore.
- 12. Representation on Works: The contractor shall, when he is not personally present on the site of the works place and keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or the engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the DFCCIL to rescind the contract under clause 62 of these conditions.
- 13. Relics and Treasures:- All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures relics antiquities and other similar things which shall be found in or upon the site shall be the property of the DFCCIL and the Contractor shall duly preserve the same to the satisfaction of the DFCCIL and shall from time to time deliver the same to such person or persons as the DFCCIL may appoint to receive the same.
- 14. **Excavated material:**-The contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stones, clay, ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings and produce shall be the property of the DFCCIL provided that the contractor may, with the permission of the Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.
- 15. Indemnity by Contractors:- The contractor shall indemnify and save harmless the Railway/DFCCIL from and against all actions, suit proceedings losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railways/DFCCIL by reason of any act or omission of the contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

#### 16. Security Deposit

16.(1) Security Deposit: The Security Deposit shall be 5% of the contract value. The Bid Security submitted by the Contractor with his tender will be retained/encashed by the Railways/DFCCIL as part of security for the due and faithful fulfilment of the contract by the Contractor. Provided further that, if Contractor submits the Cash or Term Deposit Receipt issued from a Scheduled commercial bank of India or irrevocable Bank Guarantee Bond from a Scheduled commercial bank of India, either Towards the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway/DFCCIL shall return the Bid Security, to the Contractor.

Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, the Railway/DFCCIL may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.

The Irrevocable Bank Guarantee submitted towards Security deposit shall be initially valid up to the stipulated date of Maintenance period plus 60 days and shall be extended from time to time, depending upon extension of contract granted in terms of Clause 17A and 17B of the Standard General Conditions of Contract. Note: Security Deposit deposited in cash by the Contractor or recovered from the running bills of a Contractor or submitted by contractor as Term Deposit Receipt(s) can be refunded/returned to the contractor, in lieu of irrevocable Bank Guarantee bond issued from scheduled commercial bank of India, to be submitted by him, for an amount equal to or more than the already available Security Deposit, provided however that, in a contract of value less than Rs. 50 Crore, such refund/ return of the already available Security Deposit is permitted up to two times and in a contract of value equal to or more than Rs. 50 Crore, such refund / return of the already available Security Deposit is permitted up to three times.

- **16.(2) (i) Refund of Security Deposit:** Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:
  - (a) Final Payment of the Contract as per clause 51.(1) and
  - (b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway/DFCCIL has No Claim on Contractor and
  - (c) Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1), in case applicable.
- **16. (2) (ii)** Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with railways/DFCCIL under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited.
- **16.(3)** No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 16.(4)(b) of this clause will be payable with interest accrued thereon.

#### 16.(4) Performance Guarantee

The procedure for obtaining Performance Guarantee is outlined below:

(a) The successful bidder shall have to submit a Performance Guarantee (PG) within 21 (Twenty one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty one) days and upto 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the

contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21(Twenty one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway/DFCCIL, submission of PG can be accepted on the next working day.

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

The failed Contractor shall be debarred from participating in re-tender for that work.

- (b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to 3% of the original contract value:-
- (i) A deposit of Cash;
- (ii) Irrevocable Bank Guarantee;
- (iii) Government Securities including State Loan Bonds at 5% below the market value;
- (iv) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India:
- (v) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;
- (vi) Deposit in the Post Office Saving Bank;
- (vii) Deposit in the National Savings Certificates:
- (viii) Twelve years National Defence Certificates;
- (ix) Ten years Defence Deposits;
- (x) National Defence Bonds and
- (xi) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of FA&CAO (free from any encumbrance) may be accepted.
- (c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.
- (d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.

- (e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.
- (f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India/DFCCIL is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
  - (i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
  - (ii) Failure by the Contractor to pay President of India/DFCCIL any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.
  - (iii) The Contract being determined or rescinded under clause 62 of these conditions.
  - 16. Force Majeure Clause:- If at any time, during the continuance of this contract, the Performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire. explosions, epidemics, strikes, lockouts or act of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other within 30 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non- performance of delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, provided further that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.
- 17A Extension of Time in Contracts (ACS no. 01 dt. 14.07.2022): Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the Contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:
- (i) Extension due to Modification: If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to

the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise.

- Extension for Delay not due to Railway/DFCCIL or Contractor: If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railwav's/DFCCIL employees or by other Contractor employed Railway/DFCCIL under Sub-Clause (4) of Clause 20 of these Conditions or in executing the work not forming part of the contract but on which Contractor's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Contractor not having received in due time necessary instructions from the Railway/DFCCIL for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time.
- (iii) Extension for Delay due to Railways/DFCCIL: In the event of any failure or delay by the Railway/DFCCIL to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway/DFCCIL due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the Contractor to damages or compensation therefor, but in any such case, the Railway/DFCCIL may grant such extension or extensions of the completion date as may be considered reasonable.

The Contractor shall indicate the period for which the work is likely to be delayed and shall seek extension of time as may be considered necessary under clause 17A(i) or/and 17A(ii) or/ and 17A(iii) above, as soon as the cause thereof shall arise and, in any case, not less than 15 days before the expiry of the date fixed for completion of the works. The Engineer shall consider the same and shall grant and communicate such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time; the same rates, terms and conditions of contract being applicable, as if such extended period of time was originally provided in the original contract itself.

The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.

# 17B Extension of Time with Liquidated Damages (LD) for delay due to Contractor:

The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be

completed not later than the date(s) as specified in the contract. If the Contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Clause 17 and 17A, the Railway/DFCCIL may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Proforma at Form no. 14) as the Engineer may decide. On such extension the Railway/DFCCIL will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the *rate of liquidated Damages as decided by Engineer, between 0.005% to 0.30% of contract value of the works for each week or part of the work.* 

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

Provided further, that if the Railway/DFCCIL is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the Railway/DFCCIL shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's Security Deposit and rescind the contract under Clause 62 of these Conditions, whether or not actual damage is caused by such default.

#### NOTE:

In a contract, where extension(s) of time have been allowed once under clause 17B, further request(s) for extension of time under clause 17A can also be considered under exceptional circumstances. Such extension(s) of time under clause 17A shall be without any Liquidated damages, but the Liquidated damages already recovered during extension(s) of time ranted previously under clause 17B shall not be waived. However, Price variation during such extension(s) shall be dealt as applicable for extension(s) of time under clause 17B.

- 17C Bonus for Early Completion of Work: In open tenders having advertised value more than Rs.50 crore and original period of completion 12 months or more, when there is no reduction in original scope of work by more than 10%, and no extension granted on either railway/DFCCIL or Contractor's account, Contractor shall be entitled for a bonus of 1% for each 30 days early completion of work. The period of less than 30 days shall be ignored while working out bonus. The maximum bonus shall be limited to 5% of original contract value. The completion date shall be reckoned as the date of issuance of completion certificate by Engineer.
  - 18.(1) Illegal Gratification:- Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the Contractor or his partner or agent or servant or anyone on his behalf, to any officer or employee of the Railway/DFCCIL or to any person on his behalf in relation to obtaining or execution of this or any other contract with the Railway/DFCCIL shall, in addition to any criminal liability which he may incur, subject Contractor to the rescission of the contract and all other contracts with the Railway/DFCCIL

- and to the payment of any loss or damage resulting from such decision and the Railway/DFCCIL shall be entitled to deduct the amounts so payable from the Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.
- 18.(2) The contractor shall not lend or borrow from or have or enter into any monitory dealings and transactions either directly or indirectly with any employee of the DFCCIL and if he shall do so, the DFCCIL shall be entitled forthwith to rescind the contract and all other contracts with the DFCCIL. Any question or dispute as to the commission or any such offence or compensation payable to the DFCCIL under this clause shall be settled by the Chief General Manager/Ahmedabad of the DFCCIL, in such a manner as he shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the contractor will not be paid any compensation whatsoever except payments for the work done up to the date of rescission.

#### **EXECUTION OF WORKS**

- 19.(1) Contractor's understanding:- It is understood and agreed that the contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.
- **19.(2)** Commencement of works:-The contractor shall commence the works within 10 days after the receipt by him of an order in writing to this affect from the Engineer and shall proceed with the same with due expedition and without delay.
- Accepted Programme of work (ACS no. 01 dt. 14.04.2022):- The contractor 19.(3) who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/ Chief General Manager. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery, that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall endeavour to fulfil this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

In Contracts for works of New Line/Gauge Conversion/Doubling/Railway Electrification, finalized through Tenders having advertised value more than Rs.

100 crores, the Contractor shall submit a detailed time programme to the Engineer within 30 days after issue of LOA. The program shall include the physical and Financial Progress vis-à-vis program and forecast cash flow adopting Project Management Software such as **Primavera/Sure Track/MS Project etc**. The program must identify the milestones, interface requirements and program reporting elements. The Contractor shall supply, free of cost one set of authorized software to the Engineer and the soft copy of structured program for the project. This shall be updated every month. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress. Each programme shall include:

The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage, Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing, each of these stages for work by each Subcontractor, if any, the sequence and timing of inspections and tests specified in the Contract, and a supporting report which includes:

A general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and details showing the Contractor's reasonable estimate for the number of each class of Contractor's Personnel & Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Engineer shall be entitled to rely upon the programme when planning their activities.

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause.

19. (4) Setting out of works:- The contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and shall check these at frequent intervals. The contractor shall provide all facilities like labour and instruments and shall co- operate with the Engineer's representative to check all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error shall appear or arise in any part of the work, the contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the contractor of his own responsibility of maintaining accuracy in the work. The contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.

- 20.(1) Compliance to Engineer's instructions:-The Engineer shall direct the order in which the several parts of the works shall be executed and the contractor shall execute without delay all orders given by the Engineer from time to time but the contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.
- 20.(2) Alterations to be authorized:-No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions from the Engineer, and the contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.
- **20.(3)** Extra works:- Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works which may be carried out by another contractor or contractors or by other means at the option of the DFCCIL.
- 20. (4) Separate contracts in connection with works: The DFCCIL shall have the right to let other contracts in connection with the works. The contractor shall afford other contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the contractors work depends for proper execution or result upon the work of another contractor(s), the contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The contractor's failure so-to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.
- 21. Instruction of Engineer's Representative: Any instructions or approval given by the Engineer's representative to contractor in connection with the works shall bind the contractor as though it had been given by the Engineer provided always as follows.
  - (a) Failure of the Engineer's representative to disapprove any work or materials shall not prejudice, the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.
  - (b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.
- 22. (1) Adherence to specifications and drawings: The site and the detailed drawings shall be made available to the contractor commensurate with the accepted programme of work submitted under clause 19(3). The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer he shall bear all the costs arising or ensuing therefore and shall be responsible for all loss to the DFCCIL.

- 22. (2) Drawings and specifications of the works: The contractor shall keep one copy of drawings and specifications at the site, in good order, and such contract documents as may be necessary available to the Engineer or the Engineer's representative.
- 22.(3) Ownership of drawings and specifications: All drawings and specifications and copies thereof furnished by the DFCCIL to the Contractor are deemed to be the property of the DFCCIL. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the contractor to the DFCCIL on completion of the work or termination of the contract.
- **22.(4)** Compliance with Contractor's request for details:- The Engineer shall furnish with reasonable promptness, after receipt by him of the contractor's request for the same, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawing and instructions shall be consistent with the contract Documents and reasonably inferable there from.
- **22.(5) Meaning and intent of specification and drawings:-** If any ambiguity arises as to the meaning and intent of any portion of the specifications and drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the contractor) to the GM/Dy.CPM/DFCCIL who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.
- Working during night: The contractor shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer/DFCCIL.
- 24. Damage to Railway / DFCCIL property or private life and property:-The contractor shall be responsible for all risk to the work and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway/ DFCCIL and this although all reasonable and proper precautions may have been taken by the contractor, and in case the Railway / DFCCIL shall be called upon to make good any costs, loss or damages, or to pay an compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the contractor the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Railway / DFCCIL may incur in reference thereto, shall be charged to the contractor. The Railway / DFCCIL shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to contractor, as aforesaid any sum or

sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the contractor.

25. Sheds, stores houses and Yards:-The contractor shall at his own expense provide himself with sheds, stores houses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the contractor shall keep at each such sheds, stores houses and yard a sufficient quantity of materials and plant in stock as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plan which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, store houses or yards by the contractor. The contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipment necessary for the execution of the works.

#### 26. Provision of efficient and competent Staff at work sites by the Contractor:-

- 26.1 The contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and labourers in or about the execution of any of these works as are careful and skilled in the various trades.
- 26.2 The contractor shall at once remove from the works any agents, permitted sub- contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.
- 26.3 In the event of the Engineer being of the opinion that the contractor is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed, the contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the contractor to comply with such instructions will entitle the Railway/DFCCIL to rescind the contract under clause 62 of these conditions.

# 26A. Deployment of Qualified Engineers at Work Sites by the Contractor:-

- **26A.1** The contractor shall also employ Qualified Graduate Engineer or Qualified Diploma Holder Engineer, based on value of contract, as may be prescribed by the Ministry of Railways through separate instructions from time to time.
- **26A.2** In case the contractor fails to employ the Engineer, as aforesaid in Para 26A.1, he shall be liable to pay penalty at the rates, as may be prescribed by the Ministry of Railways through separate instructions from time to time for the

default period for the provisions, as contained in Para 26A.1.

- 26A.3 Deleted
- 27.(1) Workmanship and testing:- The whole of the works and / or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings may be found requisite to be given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions which the contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the contractor.
- 27. (2) Removal of improper work and materials:- The Engineer or the Engineer's Representative shall be entitled to order from time to time:
  - (a) The removal from the site within the time specified in the order of any materials which in his opinion are not in accordance with the specifications or drawings.
  - (b) The substitution of proper and suitable materials, and
  - (c) the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefore, of any work which in respect of materials or workmanship; is not in his opinion in accordance with the specifications and in case of default on the part of the contractor in carrying out such order the DFCCIL shall be entitled to rescind the contract under clause 62 of these conditions.
  - (d) The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.
- **Facilities for inspection:-** The contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, planks, ladders, pumps, appliances and things of every kind required for the purpose and the Engineer and the Engineer's Representative shall at all times have free access to every part of the works and to all places at which materials for the works are stored or being prepared.
- 29. Examination of work before covering up:- The contractor shall give 7 days" notice to the Engineer or the Engineer's representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the reach of measurements in order that the work may be inspected or that correct dimensions may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's representative be uncovered and measured at the contractor's expense or no allowance shall be made for such work or materials.

- Temporary Works: All temporary works necessary for the proper execution of the works shall be provided and maintained by the contractor and subject to the consent of the Engineer shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charges shall be recovered from the contractor. If temporary huts are provided by the contractor on the Railway / DFCCIL land for labour engaged by him for the execution of works, the contractor shall arrange for handing over vacant possession of the said land after the work is completed; if the contractor's labour refuse to vacate, and have to be rejected by the Railway / DFCCIL necessary expenses incurred by the Railway / DFCCIL in connection therewith shall be borne by the contractor.
- 31. (1) Contractor to supply water for works: Unless otherwise provided in the contract, the contractor shall be responsible for the arrangements to obtain supply of water necessary for the works.
  - **31.(2)** Deleted
  - 31.(3) **Deleted**
  - **31.(4)(a)Contractor to arrange supply of Electric power for works:**Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of electric power for the works.

# 31.(4)(b) **Deleted**

- **32.** Property in materials and plant: The materials and plant brought by the Contractor upon the site or on the land occupied by the Contractor in connection with the works and intended to be used for the execution thereof shall immediately, they are brought upon the site of the said land, be deemed to be the property of the Railway / DFCCIL. Such of them as during the progress of the works are rejected by the Engineer under Clause 25 of these conditions or are declared by him not to be needed for the execution of the works or such as on the grant of the certificate of completion remain unused shall immediately on such rejection, declaration or grant cease to be deemed the property of the Railway / DFCCIL and the Contractor may then (but not before) remove them from the site or the said land. This clause shall not in any way diminish the liability of the Contractor nor shall the Railway / DFCCIL be in any way answerable for any loss or damage which may happen to or in respect of any such materials or plant either by the same being lost, stolen, injured or destroyed by fire, tempest or otherwise.
- 33. (1) Tools, Plant and Materials Supplied by Railway / DFCCIL: The Contractor shall take all reasonable care of all tools, plant and materials or other property whether or a like description or not belonging to the Railway/DFCCIL and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents, permitted subcontractor, or his workmen or others while they are in his charge. The Contractors shall sign accountable receipts for tools, plants and materials made over to him by the engineer and on completion of the works shall hand over the unused balance of the same to the Engineer in good order and repair, fair

wear and tear excepted, and shall be responsible for any failure to account for the same or any damage done thereto.

- 33.(2) Hire of DFCCIL / Railway's Plant:- The DFCCIL may hire to the Contractor such plant as concrete mixers, compressors and portable engines for use during execution of the works on such terms as may be specified in the special conditions or in a separate agreement for Hire of Plant.
- 34. (1) Precaution during progress of works: During the execution of works, unless otherwise specified, the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property.
- **34.(2)** Roads and Water courses:- Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alterations, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due to him in terms of contract, or otherwise according to law.
- 34.(3) Provision of access to premises:- During progress of work in any street or thoroughfare, the Contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may be interrupted by reasons of the execution of the works and shall react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.
- **34.(4) Safety of Public:-** The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or DFCCIL/Railway property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.
- 35. Deleted.
- **36.(1)** Suspension of works:- The Contractor shall on the order of the Engineer, suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is:-
  - (a) Provided for in the contract, or
  - (b) Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Contractor, and/or
  - (c) Necessary for the safety of the works or any part thereof.
  - (d) Necessary for the safety of adjoining public or other property or safety of the

- public or workmen or those who have to be at the site, or
- (e) Necessary to avoid disruption of traffic and utilities, as also to permit fast repair and restoration of any damaged utilities, or
- (f) Due to instruction of The National Green Tribunal or any other statutory authority due to high level of pollution in the city of worksite.
- 36.(2) The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspensions exceeds 14 days, the contractor shall be entitled to such extension of time for completion of the work as the Engineers may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspension.
- 36.(3) Suspension lasting more than 3 months:- If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the DFCCIL.
- Rates for items of works:- The rates, entered in the accepted Schedule of 37. Rates of the Contract are intended to provide for works duly and properly completed in accordance with the general and special (if any) conditions of the contract and the specifications and drawings together with such enlargements, extensions. diminutions. reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply, including full freight, of materials, stores, patterns, profiles, moulds, fittings, centring, scaffolding, shoring props, timber, machinery, barracks, tackle, roads, pegs, posts, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the DFCCIL, the erection, and, buildings, all maintenance and removal of all temporary works watching, lighting, bailing, pumping and draining, all prevention of or compensation for trespass, all barriers and arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the DFCCIL, the setting of all work and of the construction, repair and upkeep of all centre lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties of expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the

execution of the contract, and all such other incidental charges or contingencies as may have been specially provided for in the specifications.

#### 38. Deleted

# 39.(1) Rates for Extra Item(s) of Works (ACS no. 01 dt. 14.07.2022):

- (a) Standard Schedule of Rates (SSOR) Items: Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted rates/schedule but figures in the Standard Schedule of Rates (SSOR), shall be executed at the rates set forth in the "Standard Schedule of Rates (SSOR)" modified by the tender percentage as accepted in the contract for that chapter of Standard Schedule of Rates (SSOR).
  - For item(s) not covered in this sub clause, the rate shall be decided as agreed upon between the Engineer and the Contractor before the execution of such items of work as per sub clause (b).
- (b) Other Items: For any item of work to be carried out by the Contractor but not included in the accepted rates/schedule and also not covered under sub clause (a) above, the Contractor shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted rates/schedule does not include rate or rates for such extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the Railway shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.

The assessment of rates for extra item(s) shall be arrived at based on the prevailing market rates of labour, machinery & materials and by taking guidance from the following documents in order of priority:

- i. Analysis of Rates for "Unified Standard Schedule of Rates of Indian Railways (USSOR)"
- ii. Analysis of Rates for "Delhi Schedule of Rates issued by CPWD (DSR)"
- iii. Market Analysis
- 39.(2) Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore- mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of rates as aforesaid according to the rates as shall be fixed by the Engineer. However if the Contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the Chief Engineer/Chief General Manager. within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Chief Engineer's/ Chief General Manager's decision after hearing both the parties in the matter would be final and binding on the Contractor and the DFCCIL.

- 40. (1) Handing over of works: The Contractor shall be bound to hand over the works executed under the contract to the DFCCIL complete in all respects to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The Engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the contractor shall be bound to observe any such determination of the Engineer.
- 40.(2) Clearance of site on completion:- On completion of works, the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the works shall be paid, held to be due or shall be made to the, Contractor till, in addition to any other condition necessary for final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. Should it become necessary for the Engineer to have the site cleared at the expenses of the Contractor, the DFCCIL shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be effected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.
- 40A Offloading of Part(s) of Work: At the final stage of completion/ commissioning of work, in case the contractor fails to complete the final part(s) of the work and the value of such part(s) of the work is limited to 5% of the original contract value, the Engineer may allow/decide for offloading of such part(s) of works, either after the Contractor's request in writing to do so or after serving a 14 (Fourteen) days suomoto notice (as per Form no. 27A), if the Engineer is of the opinion that:-
  - (i) Such Offloading of works (up to 5% of original contract value) would enable successful completion of contract/work,
  - (ii) Termination/ Part termination of the contract at this stage is not be in the interest of the Railway/work;, and
  - (iii) The anticipated additional cost for execution of such works through other mode would not be substantial and can be recovered from the pending dues of the contractor:

The Contractor shall be informed, in due course, by the Engineer of the mode and cost of execution of such offloaded work through other agency(ies) (as per Form No. 27B). The extra expenditure so incurred in execution of the offloaded work, shall be recovered from subsequent Bill(s) or any other dues of the Contractor, but not exceeding the value of Performance Guarantee available in the contract. There shall be no other repercussion of such offloading on execution of the balance contract. The Contractor shall have no claim on account of above mentioned offloading of works.

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC VARIATIONS IN EXTENT OF CONTRACT

- 41. Modification to contract to be in writing: In the event of any of the provisions of the contract requiring to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the DFCCIL and the Contractor and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the DFCCIL unless and until the same is incorporated in a formal instrument and signed by the DFCCIL and the Contractor, and till then the DFCCIL shall have the right to repudiate such arrangements.
- **42.(1)** Powers of modification to contract:- DFCCIL shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.
- **42.(2)** (i) Unless otherwise specified in the contract, the accepted variation in quantity of each individual item of the contract would be up to 25% of the quantity originally contracted, except in case of foundation work. (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub- para (iii) below.
  - (ii) The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.
  - (iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates.
    - (a) Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
    - (b) Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
    - (c) Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
    - $\label{eq:definition} \mbox{(d) Variation to quantities of Minor Value Item:}$ 
      - The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original agreement value.
      - d.(i) Quantities operated upto and including 100% of the agreement

- quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;
- d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;
- d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
- (iv) In case of earthwork, the variation limit of 25% shall apply to the gross quantity of earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit. In case of foundation work, no variation limit shall apply and the work shall be carried out by the Contractor on agreed rates irrespective of any variation.
- (v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).
- **Valuation of variations:-** The enlargements, extensions, diminution, reduction, alterations or additions referred to in sub-clause (2) of this clause shall in no degree affect the validity of the contract but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted schedule of rates. Any extra items / quantities of work falling outside the purview of the provisions of sub-clause (2) above shall be paid for at the rates determined under clause-39 of these conditions.

#### **CLAIMS**

- 43. (1) Monthly Statement of Claims: The Contractor shall prepare and furnish to the Engineer once in every month an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding month quarter and no claim for payment for and such work will be considered which has not been included in such particulars.
- **43.(2) Signing of "No Claim" Certificate:-** The Contractor shall not be entitled to make any claim whatsoever against the DFCCIL under or by virtue of or arising out of this contract, nor shall the DFCCIL entertain or consider any such claim, if made by the Contractor, after he shall have signed a "No Claim" Certificate in favour of the DFCCIL in such form as shall be required by the DFCCIL after the works are finally measured up. The contractor shall be debarred from disputing the correctness of the items covered by "No Claim" Certificate or demanding a clearance to arbitration in respect thereof.

### **MEASUREMENTS, CERTIFICATES AND PAYMENTS**

- 44. Quantities in schedule annexed to Contract: The quantities set out in the accepted schedule of rates with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the work to be executed by the Contractor in fulfilment of his obligations under the contract.
- Measurement of works by Railways /DFCCIL: The Contractor shall be paid 45.(i) for the works at the rates in the accepted schedule of rates and for extra works at rates determined under Clause 39 of these conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the DFCCIL. The quantities for items the unit of which in the accepted schedule of rates is 100 or 1000 shall be calculated to the nearest whole number, any; fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted schedule of rates is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which "on account" or final measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measures. Failing the Contractor's attendance the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:
  - (a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequence of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.
  - (b) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.
- 45.(ii) Measurement of works by Contractor's Authorised Representative (If so allowed or instructed):-
  - (a) The Contractor shall be paid for the works at the rates in the accepted schedule of rates and for extra works at rates determined under Clause 39 of these conditions on the measurements taken by the Contractor's Authorised Engineer in accordance with the rules prescribed for the purpose by the DFCCIL. The quantities for items the unit of which in

the accepted schedule of rates is 100 or 1000 shall be calculated to the nearest whole number, any; fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted schedule of rates is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time. The date and time on which "on account" or "final" measurements are to be made shall be communicated to the Engineer.

The date and time of test checks shall be communicated to the contractor who shall be present at the site and shall witness the test checks, failing the contractor's attendance the test check may be conducted in his absence, and such test checks shall not withstanding such absence be binding upon contractor provided always that any objection made by contractor to test check shall be duly investigated and considered in the manner set out below:

- (i) It shall be open to the Contractor to take specific objection to test checks of any recorded measurement within 7 days of date of such test checks. Any re-test check done by the concerned Railway's authority in the presence of the Contractor or in his absence after due notice given to him in consequent of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.
- (ii) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.
- (b) Incorrect Measurement, actions to be taken: If in case during test check or otherwise, it is detected by Engineer that agency has claimed any exaggerated measurement or has claimed any false measurement for the works which have not been executed; amounting to variation of 5% or more of claimed gross bill amount, action shall be taken as following:
  - (i) On first occasion of noticing exaggerated/false measurement, Engineer shall impose a penalty of 10% of the claimed gross bill value.
  - (ii) On any next occasion of noticing any exaggerated / false measurement, DFCCIL shall impose penalty of 15% of claimed gross bill value. In addition the facility of recording of measurements by contractor as well as release of provisional payment shall be withdrawn. Once withdrawn, measurement shall be done by DFCCIL as per Clause 45(i) above.
- 46. (1) "On-Account" Payments:- The Contractor shall be entitled to be paid from time to time by way of "One-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's/Engineer's Representative's certificates of measurements or Engineer's certified "Contractor's authorized Engineer's measurements" shall be subject to any deductions which may be made

under these presents and shall further be subject to, unless otherwise required by Clause 16 of these Conditions, a retention of 6% (Six) by way of Security Deposits, until the amount of Security Deposit by way of such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate, if the works or any part thereof are not being carried out to his satisfaction.

- **46.(2)** Rounding off amounts: The total amount due on each certificate shall be rounded off to the nearest rupee i.e. sum less than 50 paise shall be omitted and sums of 50 paise and more up to Re. 1/- will be reckoned as Re. 1/-
- 46.(3) On Account Payments not prejudicial to final settlement: "On-Account" payments made to the "Contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the easurement Book as "Final Measurements" and as such have been signed by the Contractor) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.
- 46.(4) If payment(s) of Advances are applicable in the contract, as mentioned in the Tender Documents, Railway/DFCCIL shall make payment(s) of Interest bearing advances, on the request of contractor. The payment and recovery of such Advances shall be made as under:

### (a): Mobilisation Advance -

This shall be limited to 10% of the Contract value and shall be paid in 2 stages: Stage 1–5% of Contract Value on signing of the contract agreement.

Stage 2 – 5% on mobilization of site-establishment, setting up offices, bringing in equipment and actual commencement of work.

The stage 1 of advance shall be payable immediately after signing of contract agreement.

The stage 2 of advance shall be payable at the time of mobilisation, only after submission of an utilization certificate by the contractor that the Stage 1 advance has been properly utilized in the contract.

These Advances shall be payable against irrevocable guarantee (Bank Guarantee, FDRs) from a scheduled commercial bank of India of at least 110% of the value of the sanctioned advance amount (covering principal plus interest).

### (b): Advance Against Machinery and Equipment -

This advance shall be limited to a maximum of 10% of the contract value against new Machinery & Equipment, involving substantial outlay, brought to site and essentially required for the work. This advance shall not exceed 75% of the purchase price of such Equipment and shall be payable when Equipment is hypothecated to the President of India by a suitable bond or alternatively covered by an irrevocable Bank Guarantee from a scheduled commercial bank of India for full cost of the Plant & Equipment in a form acceptable to Railways. The Plant & Equipment shall be insured for the full value and for the entire period, they are required for the work. This Plant & Equipment shall not be

removed from the site of work without prior written permission of the Engineer. No advance should be given against old Plant & Machinery.

# The advances under sub clause (a) and (b) above, are subject to the following conditions –

- (i) The full amount of Advances shall be recovered from contractor dues. The recovery shall commence when the value of contract executed reaches 15% of original contract value and shall be completed when the value of work executed reaches 85% of the original contract value. The instalments on each "on account bill" will be on pro-rata basis.
  - Interest shall be recovered on the advance outstanding for the period commencing from the date of payment of advance till date of particular on-account bill (through which recovery of principal is effected) and adjusted fully against on-account bill along with pro-rata principal recovery. In the event of any short-fall, the same shall be carried forward to the next on-account bill and shall attract interest.
- (ii) The advances shall be used by the Contractor for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interest in one go without demur. The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilisation advance.
- (iii) If the Contractor is found to have contravened the provision, it will constitute a breach of contract and Railway shall be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.
- (iv) In cases, where the Contract is rescinded as per clause 62 of the contract or short closed under any other condition(s) of the contract, without making full recovery of advances and accrued interest thereon, by the Railway, such balance of advances and accrued interest thereon shall immediately become due and payable by the Contractor to the Railway. The same shall be recovered from any due of Contractor with the Government of India.
- **46.(5) Manner of Payment:** Unless otherwise specified payments to the Contractor will be transferred electronically to his bank account.

# 46 Price Variation Clause (PVC): (ACS no. 01 dt. 14.07.2022)

- **46A.1 Applicability**: Price Variation Clause (PVC) shall be applicable only in tender having advertised value above Rs. 2 Crores. Provided further that, in a contract where PVC is applicable, following shall be outside the purview of price adjustments (i.e. shall be excluded from the gross value of the work for the purpose of price variation):
  - a) Materials supplied by Railway/DFCCIL to the Contractors, either free or at fixed rate;
  - b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (I)(b) of these Standard General Conditions, unless applicability of PVC and 'Base Month' has been specially agreed, while fixing the rates of such extra item(s).

**46A.2 Base Month:** The Base Month for 'Price Variation Clause' shall be taken as the one month prior to closing of tender, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following the Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.

### 46A.3 Validity:

Rates accepted by DFCCIL Railway Administration shall hold good till completion of work and no additional

individual claim shall be admissible except:

- (a) Payment/recovery for increase/decrease in GST on works contract or imposition/removal of any tax/cess on Works Contract as per Clause 37,
- (b) Payment/recovery for overall market situation as per Price Variation Clause given hereunder.
- **46A.4** Components of various items in a contract on which variation in prices be admissible, shall be steel, cement, ferrous material, non-ferrous material, insulators, zinc and other materials, labour, plant & machinery, fuel, explosives, detonators etc. Adjustment for variation in prices of these items shall be determined in the manner prescribed.
- **46A.5** No price variation shall be admissible for fixed components.
- **46A.6** The percentages of various components in various type of works shall be as specified for all item (s)/ Bill(s) of Quantities in tender document and the same shall be fixed as per table & classifications given below:

# (I) For Civil Engineering Works

S	Classification									., &	, ,	-, O	, II)
N	Components		1A, 2 & 3A	4A	5A	6A	7	8A	9A	1B, 3B, 4B 5B, 6B, 8B e 9B	1C, 3C, 4C, 5C, 6C, 8C, & 9C	3D, 4D, 5D, 6D, 8D,& 9D	3E, 4E, 5E, 6E, 8E,& 9E
1	Fixed	*	15	15	15	15	15	15	15	15	15	15	15
2	Labour	L <sub>C</sub>	20	25	30	20	50	20	20	0	0	10	25
3	Steel	$S_{\rm C}$	0	0	0	0	0	0	0	85	0	50	0
4	Cement	$C_{\rm C}$	0	0	15	0	0	0	0	0	85	0	0
5	Plant Machinery & Spares	PM C	30	15	5	20	15	20	30	0	0	10	30
6	Fuel & Lubricant	$F_{C}$	25	15	5	15	15	20	15	0	0	10	20
7	Other Materials	$M_{\rm C}$	10	15	30	30	5	25	20	0	0	5	10
8	Detonators & Explosive	E <sub>C</sub>	0	15	0	0	0	0	0	0	0	0	0
Total			100	100	100	100	100	100	100	100	100	100	100

\*It shall not be considered for any price variation.

The classification mentioned in the table above represents following type of item(s) in the work(s) –

#### 1 Earthwork in Formation

- 1A All Item(s) excluding 1B or/and 1C
- 1B Item(s) for supply of Steel
- 1C Item(s) for supply of Cement

### 2 Ballast Supply Works

### 3 Tunnelling Works (Without Explosives)

- 3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E
- 3B Item(s) for supply of Steel
- 3C Item(s) for supply of Cement or/and Grout
- 3D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

### 4 Tunnelling Works (With explosives)

- 4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E
- 4B Item(s) for supply of Steel
- 4C Item(s) for supply of Cement or/and Grout
- 4D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 4E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

## **5 Building Works**

- 5A All Item(s) excluding 5B or/and 5C or/and 5D or/and 5E
- 5B Item(s) for supply of Steel
- 5C Item(s) for supply of Cement
- 5D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 5E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

### 6 Bridges & Protection work

- 6A All Item(s) excluding 6B or/and 6C or/and 6D or/and 6E
- 6B Item(s) for supply of Steel
- 6C Item(s) for supply of Cement
- 6D Item(s) for Fabrication, Assembly, Erection& Launching of Girders including supply of Steel
- 6E Item(s) for Fabrication, Assembly, Erection & Launching of Girders excluding supply of Steel

## 7 Permanent Way linking

### 8 Platform, Passenger Amenities

- 8A All Item(s) excluding 8B or/and 8C or/and 8D or/and 8E
- 8B Item(s) for supply of Steel item/fittings
- 8C Item(s) for supply of Cement Item
- 8D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 8E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

### 9 Any Other Works not covered in Classification 1 to 8

- 9A All Item(s) excluding 9B or/and 9C or/and 9D or/and 9E
- 9B Item(s) for supply of Steel
- 9C Item(s) for supply of Cement or/and Grout
- 9D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 9E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

46A.7 Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:

(i) 
$$L = (W \text{ or Wsf or } W_F \text{ or Wsfl or Wfl}) \times (L_Q - L_B) \times L_C$$
  
 $L_B \times 100$ 

(ii) 
$$M = (W \text{ or Wsf or Wfl or Wsfl or Wfl}) \times (MQ - MB) \times MC$$

$$MB \times 100$$

(iii) 
$$F = (W \text{ or } W_{SF} \text{ or } W_{F} \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_{Q} - F_{B}) \times F_{C}$$

$$F_{B} \times 100$$

(iv) 
$$E = (W) x (E_Q - E_B) x E_C$$
  
 $E_B x 100$ 

(v) 
$$PM = (W \text{ or Wsf or Wsfl or Wsfl or Wsfl}) \times (PMQ-PMB) \times PMC$$
  
 $PMB \times 100$ 

(vi) 
$$S = (W \text{ or } Ws \text{ or } WsF) \times (SQ-SB) \times SC$$
  
 $SB \times 100$ 

(vii) 
$$C = (W \text{ or } Wc) \times (CQ - CB) \times Cc$$
  
 $CB \times 100$ 

### (II) For DFCCIL Electrification Works:

(viii) 
$$T = [0.4136x(C_Q - C_B) / C_B] \times 85$$
  
(ix)  $R = [0.94x(R_T - R_O) / R_O + 0.06x(Z_T - Z_O) / Z_O] \times 85$   
(x)  $N = [(P_T - P_O) / P_O] \times 85$   
(xi)  $I = [(I_T - I_O) / I_O] \times 85$   
(xii)  $G = [(M_Q - M_B) / M_B] \times 85$   
(xiii)  $E = [(L_Q - L_B) / L_B] \times 85$ 

# Where,

- L Amount of price variation in Labour
- M Amount of price variation in Materials
- F Amount of price variation in Fuel
- E Amount of price variation in Explosives
- PM Amount of price variation in Plant, Machinery and Spares

- S Amount of price variation in Steel Supply Item
- C Amount of price variation in Cement Supply Item
- T Percentage variation payable on the gross value of bill of Concreting (Bill(s) of Quantities for concrete items)
- R Percentage variation payable on the gross value of bill of Ferrous Items (Bill(s) of Quantities for ferrous items)
- N Percentage variation payable on the gross value of bill of Non-Ferrous Items (Bill(s) of Quantities for non-ferrous items)
- I Percentage variation payable on the gross value of bill of Insulator (Bill(s) of Quantities for Insulator items)
- G Percentage variation payable on the gross value of bill of General Works (Bill(s) of Quantities for General items)
- Er Percentage variation payable on the gross value of erection (Bill(s) of Quantities for Erection Item)
- Lc % of Labour Component in the item(s)
- Mc % of Material Component in the item(s)
- Fc % of Fuel Component in the item(s)
- Ec % of Explosive Component in the item(s)
- PMc % of Plant, Machinery and Spares Component in the item(s)
- Sc % of Steel Supply item Component in the item(s)
- Cc % of Cement Supply item Component in the item(s)
- W Gross value of work done by Contractor as per on-account bill(s) excluding the Gross value of work under Ws or/and Wc or/and WsF or/and WF or/and WsFL or/and WFL and cost of materials supplied by Railway either free or at fixed rate,
- Ws Gross value of work done by Contractor for item(s) of supply of steel.
- Wc Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.
- WsF Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.
- W<sub>F</sub> Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.
- Wsfl Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.
- WFL Gross value of work done by Contractor for item(s) of Fabrication, Assembly,

- Erection / Launching of Girders excluding supply of Steel.
- LB Consumer Price Index for Industrial Workers All India: Published in R.B.I. Bulletin for the base period
- Lo Consumer Price Index for Industrial Workers All India: Published in R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration
- MB Wholesale Price Index: All commodities as published in the R.B.I. Bulletin for the base period
- Mo Wholesale Price Index: All commodities as published in the R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration
- FB The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the base period
- Fo The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the 3 months of the quarter under consideration
- EB Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the base period.
- Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the average price index of 3 months of the quarter under consideration.
- PMB Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin, for the base period.
- PMo Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction' published in RBI (Reserve Bank of India) Bulletin, for the average price index of 3 months of the quarter under consideration.

- S<sub>B</sub> The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the base period.
- So The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the 3 months of the quarter under consideration.
- C<sub>B</sub> Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period
- No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the average price index of the 3 months of the quarter under consideration
- R<sub>T</sub> IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.
- Ro IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is one month prior to date of opening of tender.
- P<sub>T</sub> IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.
- Po IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.
- Z<sub>T</sub> IEEMA price index for Zinc for the month which is two months prior to date of inspection of material
- Zo IEEMA price index for Zinc for the month which is one month prior to date of opening of tender
- IT RBI wholesale price index for the sub-group "Insulators" for the month which is two months prior to date of inspection of material
- RBI wholesale price index for the sub-group "Insulators" for the month which is one month prior to date of opening of tender

# (III) SIGNALING & TELECOMMUNICATION WORKS:

- (a) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:
- SIGWK = Value of signalling works for a stage payment of the item signalling works;
- INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works;

INTGTESTSIG = Value of integrated testing and commission for signalling works of the Railway Project;

COMWK= Value of telecommunication works for a stage payment of the item telecommunication works;

INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works; and

INTGTESTCOM = Value of integrated testing and commission for telecommunication works of the Railway Project.

- (b) Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:
  - (i) VSIGWK = 0.85 SIGWK x [PELEX x (ELEXi ELEXo)/ ELEXo + POFC x (OFCi OFCo)/OFCo + PLB x (LBi LBo)/LBo + POTH x (OTHi OTHo)/OTHo + S30C x (P30Ci P30Co)/ P30Co + S24C x (P24Ci P24Co)/ P24Co + S19C x (P19Ci P19Co)/ P19Co + S12C x (P12Ci P12Co)/ P120Co + S9C x (P9Ci P9Co)/ P9Co + S6C x (P6Ci P6Co)/ P6Co + S4C x (P4Ci P4Co)/ P4Co + S2C x (P2Ci P2Co)/ P2Co + S12C2.5 x (P12C2.5i P12C2.5o)/ P12C2.5o + S2C2.5 x (P2C2.5i P2C2.5o)/ P2C2.5o + QC x (PQCi PQCo)/PQCo;
  - (ii) VINVSIG = 0.85 SIGWK x [PELEX x (ELEXi ELEXo)/ ELEXo + POTH x (OTHi OTHo)/OTHo];
  - (iii) VINTGTESTSIG = 0.85 INTGTESTSIG x [PLB x (LBi LBo)/LBo + POTH x (OTHi- OTHo)/OTHo];
  - (iv) VCOMWK = 0.85 COMWK x [PELEX x (ELEXi ELEXo)/ ELEXo + POFC x (OFCi OFCo)/OFCo + PLB x (LBi LBo)/LBo + POTH x (OTHi OTHo)/OTHo + S30C x (P30Ci P30Co)/ P30Co + S24C x (P24Ci P24Co)/ P24Co + S19C x (P19Ci P19Co)/ P19Co + S12C x (P12Ci P12Co)/ P120Co + S9C x (P9Ci P9Co)/ P9Co + S6C x (P6Ci P6Co)/ P6Co + S4C x (P4Ci P4Co)/ P4Co + S2C x (P2Ci P2Co)/ P2Co+ S12C2.5 x (P12C2.5i P12C2.5o)/ P12C2.5o + S2C2.5 x (P2C2.5i P2C2.5o)/ P2C2.5o + QC x (PQCi PQCo)/ PQCo+ PCEQP x (CEQPi CEQPo)/CEQPo];
  - (v) VINVCOM = 0.85 SIGWK x [PELEX x (ELEXi ELEXo)/ ELEXo + PCEQP x (CEQPi CEQPo)/CEQPo + POTH x (OTHi OTHo)/OTHo]; and
  - (vi) VINTGTESTCOM = 0.85 INTGTESTCOM x [PLB x (LBi LBo)/LBo + POTH x (OTHi OTHo)/OTHo].

#### Where

VSIGWK = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINVSIG = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINTGTESTSIG = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINVCOM = Increase or decrease in the cost of inventory for telecommunications works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;

CEQPo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called "WPI") for communication equipment for the month of the Base Month;

CEQPi = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;

ELEXo = The WPI for electronics for the month of the Base Month;

ELEXi = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;

 $P30C_i$  = Price payable per Km as adjusted in accordance with price variation Clause for size  $30C \times 1.5$  sq mm signalling cable

P30C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.

S30C = Percentage of size 30C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P24C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable

P24C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.

- S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- P19C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable
- P19C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S19C = Percentage of size 19C  $\times$  1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- P12C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable
- P12C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S12C = Percentage of size 12C  $\times$  1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- $P9C_i$  = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable
- P9C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S9C = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- P6C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable
- P6C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S6C = Percentage of size 6C  $\times$  1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- P4C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable
- P4C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S4C = Percentage of size 4C  $\times$  1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
- P2C<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable
- P2C<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.
- S2C = Percentage of size 2C  $\times$  1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

 $P12C2.5_i$  = Price payable per Km as adjusted in accordance with price variation Clause for size  $12C \times 2.5$  sq mm signalling cable

P12C2.5<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.

S12C2.5 = Percentage of size  $12C \times 2.5$  sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

 $P2C2.5_i$  = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 2.5 sq mm signalling cable

P2C2.5<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.

S2C2.5 = Percentage of size 2C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C25<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable

P2C25<sub>o</sub> = Price per Km of cable as per purchase order/ Contract agreement.

S2C25 = Percentage of size 2C x 25 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

PQC<sub>i</sub> = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.

PQC₀= Price per Km of cable as per purchase order/ Contract agreement.

QC = Percentage of size 0.9mm dia, 6 Quad cable shall govern the price.

LBo = The consumer price index for industrial workers — All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "CPI") for the month of the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFCo = The WPI for fibre cables for the month of the Base Month;

OFCi = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTHo = The WPI for all commodities for the month of the Base Month; and

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

(c) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication works:

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	S	ignalling	ļ	Telec	ommuni	cation
Component	Signalling Works	Signalling inventory	Integrated testing and Commissioning	Telecommunication Works	Telecomm inventory	Integrated testing and Commissioning
Electronics (PELEX)	***%	***%	-	***%	***%	-
Communication Equipment (PCEQP)	-	-	-	***%	***%	-
Optical Fibre Cable (POFC)	***%	-	-	***%	-	-
30C x 1.5 sq mm signalling cable(S30C)	***%	-	-	***%	-	-
24C x 1.5 sq mm signalling cable (S24C)	***%	-	-	***%	-	-
19Cx 1.5 sq mm signalling cable (S19C)	***%	-	-	***%	-	-
12C x 1.5 sq mm signalling cable (S12C)	***%	-	-	***%	-	-
9C x 1.5 sq mm signalling cable (S9C)	***%	-	-	***%	-	-
6C x 1.5 sq mm signalling cable (S6C)	***%	-	-	***%	-	ı
4C x 1.5 sq mm signalling cable (S4C)	***%	-	-	***%	-	ı
2C x 1.5 sq mm signalling cable (S2C)	***%	-	-	***%	-	-
12C x 2.5 sq mm signalling cable (S12C2.5)	***%	-	-	***%	-	ı
2C x 2.5 sq mm signalling cable (S2C2.5)	***%	-	-	***%	-	ı
2C x 25 sq mm signalling cable (S2C25)	***%	-	-	***%	-	ı
0.9 mm dia, 6Quad cable (QC)	***%	_	_	***%	_	
Labour (PLB)	***%	_	***%	***%	***%	***%
Other materials	***%	***%	***%	***%	***%	***%
Total	100%	100%	100%	100%	100%	100%

(Note- the percentages may be finalized by tendering authority depending on BOQ)

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC FORMULAE FOR SIGNALING & TELECOM CABLE

The price payable for signalling cables is variable as per Price Variation Formula given below:

For Signalling Copper Cables:

Pi= Po+CuF (Cu-Cuo) + CCFcu(CC-CCo) + FeF (Fe-Feo)

For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable

Pi= Po+CuF (Cu-Cuo) + AlFcu(Al-Alo) + CCFcu (CC-Cco) + FeF (Fe-Feo)

For Aluminium Power Cables:

Pi= Po+AIF (AI-AIo) + CCFAI(CC-CCo) + FeF (Fe-Feo)

Where,

P<sub>i</sub> = Price payable per KM as adjusted in accordance with Price variation clause.

Po = Price per KM of cable as per Purchase order.

CuF = Variation factor for Copper

Cuo = Price of copper Rod in Rs. Per MT

CCFCu = Variation factor for PVC Compound for Copper Signalling & Telecom cable

CCo = Price of PVC Compound in Rs. Per MT

AIF = Variation factor for Aluminium

Alo = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

CCFAI = Variation factor for PVC Compound for Aluminium power cable

FeF = Variation factor for Steel

Feo = Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per

MT

(Prices per MT for Cuo, CCo, Feo, Alo as applicable on the 1<sub>st</sub> working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/-- one month prior to the deadline for submission of bids.)

Cu= Price of Copper Rod in Rs. Per MT.

Cc= Price of PVC Compound in Rs. Per MT.

Fe= Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs.

Per MT.

AI = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu, CC, Fe, Al as prevailing on 1stworking day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for some of the types of signalling cable is as given under:-

Underground Railway Signalling Cable unscreened and armoured copper conductor

- (i) Size 30 C x 1.5 sq.mm.
  - P30Ci=P30Co+0.391(Cu-Cuo) +0.557(CC-CCo) +0.425(Fe-Feo)

For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (ii) Size 24C x 1.5 sq.mm
  - P24Ci= P24Co+0.313(Cu-Cuo) + 0.481 (CC-CCo) +0.398(Fe-Feo)

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (iii) Size 19C x 1.5 sq.mm
  - P19Ci= P19Co+0.248(Cu-Cuo) + 0.395(CC-CCo) +0.343(Fe-Feo)

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (iv) Size 12C x 1.5 sq.mm
  - P12Ci=P12Co+0.157(Cu-Cuo) + 0.277(CC-CCu) +0.289(Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (v) Size 9C x 1.5 sq.mm
  - P9Ci= P9Co+0.117(Cu-Cuo) +0.241(CC-CCu) +0.383(Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vi) Size 6Cx 1.5 sq.mm
  - P6Ci= P6Co+0.078(Cu-Cuo) +0.199(CC-CCu) +0.329(Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vii) Size 4Cx1.5 sq.mm
  - P4Ci=P4Co+0.052(Cu-Cuo) +0.152(CC-CCo) +0.277(Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (viii) Size 2C x 4 sq.mm(multistrand)
  - P2Ci= P2Co+0.073(Cu-Cuo) +0.156(CC-CCo) +0.3(Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (ix) Size 12C x 2.5 sq.mm
  - P12C2.5= P12C2.5o+0.282 (Cu-Cuo) +0.371 (CC-CCo) +0.342 (Fe-Feo)

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (x) Size  $2C \times 2.5 \text{ sq.mm}$ 
  - P2C2.5= P2C2.5o+0.047 (Cu-Cuo) +0.139 (CC-CCo) +0.277 (Fe-Feo)

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (xi) Size 2C x 25 sq.mm PVC insulated, armoured, Aluminium power cable P2C25i= P2C25o+0.146 (Al-Alo) +0.303 (CC-CCo) +0.306 (Fe-Feo) For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.
- (xii) For Jelly filled, 0.9mm dia, 6 quad cable
   PQC<sub>i</sub> = PQCo + 0.135 (Al-Alo) + 0.139 (Cu-Cuo) + 0.515 (CC-Cco) + 0.693 (Fe-Feo).
   For PVC Compound Grade CW-22, is to be taken into consideration.
- 46A.8 The demands for escalation of cost shall be allowed on the basis of provisional indices as mentioned above in Clause 46A.7. Any adjustment needed to be done based on the finally published indices shall be made as and when they become available.

46A.9: (1) Relevant categories of steel for the purpose of operating Price Variation formula as mentioned in this Clause shall be as under:

SN	Classification	Rates to be used for calculating Sq or SB					
1.	Reinforcement bars and other rounds	Average of per tonne rates of 10mm dia TMT & 25mm dia TMT; confirming IS1786; Fe 500					
2.	All types and sizes of angles, channels and joists	Average of per tonne rates of 'Angle 75x75x6mm, Mild Steel Plate 10mm thickness and Channel 150x75mm; confirming IS2062, E250 Gr "A"					
3.	All types and sizes of plates	Average of per tonne rates of 'MS Plates 10mm thickness and 25mm thickness; confirming IS2062, E250 Gr "A"					
4.	Any other section of steel not covered in the above categories	Average of price for the 3 categories covered under SL 1, 2 & 3 in this table.					

(2). Relevant city for referring "JPC (Joint Plant Committee)" rates of steel items (SQ /SB) in different Zonal Railways shall be as under:

SL	City	Railway				
1.	Delhi	Northern , North Central, North Eastern, North Western				
2.	Kolkata	Eastern, East Central, East Coast, Northeast Frontier, South Eastern, Southeast Central				
3.	Mumbai	Central, Western, West Central				
4.	Chennai	Southern, South Central & South Western				

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC 46A.10 Price Variation during Extended Period of Contract

The price adjustment as worked out above, i.e. either increase or decrease shall be applicable upto the stipulated date of completion of work including the extended period of completion where such extension has been granted under Clause 17A of the Standard General Conditions of Contract. However, where extension of time has been granted due to Contractor's failure under Clause 17B of the Standard General Conditions of Contract, price adjustment shall be done as follows:

- a. In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17A, the price adjustment for the period of extension granted under Clause 17B shall be limited to the amount payable as per the Indices applicable to the last month of the original completion period or the extended period under Clause 17A of the Standard General Conditions of Contract; as the case may be.
- b. In case the indices fall below the indices applicable to the last month of original/ extended period of completion under Clause 17A, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17B of the Standard General Conditions of Contract.
- 47.0 **Maintenance of works** The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the Tender Form after the date of issue of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer be responsible for and effectively maintain and uphold in good substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the contractor shall be liable for and shall pay and make good to the DFCCIL or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to by reasons or in consequence of the operations of the Contractor or of his failure in any respect.
  - 48. (1) Certificate of completion of works: As soon as in the opinion of the Engineer, the works has been completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect, of the work and the period of maintenance of the work shall commence from the date of completion mentioned in such certificate. The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by contractor and that there is no due from the contractor to Railways/DFCCIL against the contract concerned.

The Engineer may also issue such a certificate indicating date of completion with respect to any part of the work (before the completion of the whole of work), which has been both completed to the satisfaction of the Engineer and occupied or used by the DFCCIL. When any such certificate is given in respect of part of a work, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of

completion mentioned in the completion certificate issued for that part of the work.

- 48.(2) Contractor not absolved by completion Certificate:- The Certificate of completion in respect of the works referred to in sub-clause (1) of this clause shall not absolve the Contractor from his liability to make good any defects imperfections, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawings or specifications or instruction of the Engineer, which defects, imperfections, shrinkages or faults shall upon the direction in writing of the Engineer be amended and made good by the Contractor at his own cost: and in case of default on the part of Contractor the Engineer may employ labour and materials or appoint another Contractor to amend and make good such defects, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.
- 48.(3) Final Supplementary Agreement: After the work is completed or otherwise concluded by the parties with mutual consent, and taken over by the Railway as per terms and conditions of the contract agreement, and there is unequivocal no claim on either side under the Contract other than as mentioned in item 4 of Form No. 24, the parties shall execute the Final Supplementary Agreement as per Form No. 24
- 49.0 Approval only by maintenance Certificate: No certificate other than maintenance certificate referred to in Clause 50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or of the accuracy of any claim or demand made by the Contractor or of additional varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineer.
- 50.(1) Maintenance Certificate:- The Contract shall not be considered as completed until a Maintenance Certificate shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer upon the expiration of the period of maintenance or as soon thereafter as any works ordered during such period pursuant to sub clause (2) Clause 48 of these conditions shall have been completed to the satisfaction of the Engineer and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the DFCCIL.
- 50.(2) Cessation of Railway's / DFCCIL Liability: The DFCCIL shall not be liable to the Contractor for any matter arising out of or in connection with the contract of the execution of the works unless the contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate under this clause.
- **50.(3) Unfulfilled Obligations:** Notwithstanding the issue of the Maintenance certificate the Contractor and (subject to sub-clause 2 of this clause) the DFCCIL shall remain liable for the fulfilment of any obligation incurred under the provision of the contract prior to the issue of the maintenance Certificate which remains unperformed at the time such certificate is issued and for

the purposes of determining the nature and extent of any such obligations the contract shall be deemed to remain in force between the parties thereto.

- 51.(1) Final Payment:- On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements or Engineer's certified "contractor's authorized engineer's measurements" of the total quantity of work executed by the Contractor upto the date of completion and on the rates accepted in Bill(s) of Quantities and for extra works on rates determined under Clause 39 of these Conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having signed delivered to the Engineer enclosing either a full account in detail of all claims he may have on the Railway in respect of the works or having delivered No Claim Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claims are not covered under excepted matter i.e. Clauses 7(j), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2) and 62(1), 63(iv) and 63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the Railway for or in the respect of damage or loss by from or in consequence of the works, have been satisfied agreeably and in conformity with the contract.
- 51.(2) Post Payment Audit:- It is an agreed term of contract that the DFCCIL reserves to itself the right to carry out a 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 any excess amount paid to him if as a result of such examination any over-payment to him is discovered to have made in respect of any works done or alleged to have been done by him under the contract.

### 51A. Production of vouchers etc. by the Contractor:-

(i) For a contract of more than one crore of rupees, the contractor shall, whenever required, produce or cause to be produced for examination by the Engineer any quotation, invoice, cost or other account, book of accounts, voucher, receipt, letter, memorandum, paper of 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 any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the engineer on the question of relevancy of any documents, information or return being final and binding in the parties). The contractor shall similarly produce vouchers; etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract

- (ii) If any portion of the work in a contract of value more than one crore of rupees be carried out by a sub-contractor or any subsidiary or allied firm or company (as per Clause 7 of the General Conditions of Contract), the Engineer shall have power to secure the books of such sub-contract or any subsidiary or allied firm or company, through the contractor, and such books shall be open to his inspection.
- (iii) The obligations imposed by sub clause (i) & (ii) above is without prejudice to the obligations of the contractor under any statute rules or orders binding on the contractor.
- 52.0 Withholding and lien in respect of sums claimed: Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the DFCCIL shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the DFCCIL shall be entitled to withhold the said cash security deposit or the security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the DFCCIL shall be entitled to withhold and have a lien to the extent of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with this or any other DFCCIL or any Department of the Central Government pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the DFCCIL will be kept withheld or

retained as such by the DFCCIL till the claim arising out of or under the contract is determined by the arbitrator (if the contract governed by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the DFCCIL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be whether in his individual capacity or otherwise.

### 52A. Lien in respect of claims in Other Contracts:-

(i) Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the DFCCIL, against any claim of this or any other DFCCIL or any other Department of the Central Government in respect of a payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of the Central Government.

- (ii) However, recovery of claims of DFCCIL in regard to terminated contracts may be made from the Final Bills, Security Deposits and Performance Guarantees of other contract or contracts, executed by the contractor. The Performance Guarantees submitted by the Contractor against other contracts, if required, may be withheld and encashed. In addition, 10% of each subsequent "on-account bill" may be withheld, if required, for recovery of DFCCIL/Railways" dues against the terminated contract.
- (iii) It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the DFCCIL will be kept withheld or retained as such by the DFCCIL till the claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.
- 53.0 Signature on Receipts for Amounts:- Every receipt for money which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by anyone of the partners of a Contractor's firm be a good and sufficient discharge to the DFCCIL in respect of the moneys or security purported to be acknowledged thereby and in the event of death of any of the Contractor, partners during the pendency of the contract it is hereby expressly agreed that every receipt by anyone of the surviving Contractor partners shall if so signed as aforesaid be good a sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the DFCCIL may hereafter have against the legal representative of any contractor partner so dying for or in respect to any breach of any of the conditions of the contract, provided also that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representatives of any deceased Contractor partners interse.

### LABOUR

- **54.0 Wages to Labour: -**The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act") and the Rules made there under in respect of any employees directly or through petty contractors or subcontractors employed by him for the purpose of carrying out this contract.
  - If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the DFCCIL whether in connection with any work being executed by the Contractor or otherwise for the purpose of the DFCCIL such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the

said Act be directed to be paid by the DFCCIL, such money shall be deemed to be moneys paid by it as aforesaid within seven days after the same shall have been demanded, the Railway/DFCCIL shall be entitled to recover the same form any moneys due or accruing to the Contractor under this or any other Contract with the DFCCIL.

**54A. Apprentices Act:** - The contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued there under from time to time in respect of apprentices directly or through petty contractors or sub- contractors employed by him for the purpose of carrying out the Contract.

If the contractor directly or through petty contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the DFCCIL may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

55.1 Provisions of payments of Wages Act: - The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made there under in respect of all employees employed by him either directly or through petty contractors or sub-contractors employed by him in the works. If In compliance with the terms of the contract, the Contractor directly or through petty contractors of sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall never the less be deemed to comprise persons employed by the contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the contractor to repay such money to the Railways/DFCCIL deduct the same from moneys due to contractor in the terms of contract. The DFCCIL shall be entitled to deduct from any moneys due to the contractor (whether under this contract or any other contract) all moneys paid or payable by the DFCCIL by the way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the Contractor.

## 55A. Provisions of Contract labour (Regulation and Abolition) Act, 1970:

- 55A.(1) The contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the DFCCIL from and against any claims under the aforesaid Act and the Rules.
- **55A.(2)** The Contractor shall obtain a valid licence under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid licence until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Act.
  - 55A. (3) The Contractor shall pay to the labour employed by him directly or through

sub- contractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour indirectly engaged on the works including any engaged by subcontractors in connection with the said work, as if the labour had been immediately employed by him.

- **55A.(4)** In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of, the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable.
- 55A.(5) In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the DFCCIL is obliged to pay any amount of wages to a workman employed by the Contractor or his sub-contractor in execution of the work or to incur any expenditure on account of the Contingent, liability of the DFCCIL due to the contractor's failure to fulfil his statutory obligations under the aforesaid Act or the rules the DFCCIL will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the DFCCIL under the section 20, subsection (2) and section 2, sub-section (4) of the aforesaid Act, the DFCCIL shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/ or from any sum due by the DFCCIL to the contractor whether under the contract or otherwise. The DFCCIL shall not be bound to contest any claim made against it under sub-section (1) of section 20 and sub-section (4) of section 21 of the aforesaid Act except on the written request of the contractor and upon his giving to the DFCCIL full security for all costs for which the DFCCIL might become liable in contesting such claim. The decision of the DFCCIL regarding the amount actually recoverable from the contractor as stated above shall be final and binding on the Contractor.

# 55B. Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952:

The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees" Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the DFCCIL from and against any claims under the aforesaid Act and the Rules.

- **55-C(i)** Contractor is to abide by the provisions of various labour laws in terms of above clause 54, 55, 55-A and 55-B of Indian Railways Standard General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website "www.shramikkalyan.indianrailways.gov.in". Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The registration / updation in Portal shall be done as under:
  - (a) Contractor shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration in the portal within 7 days of receipt of such request.
  - (b) Contractor once approved by any Engineer, can create password with

- login ID (PAN No.) for subsequent use of portal for all Letter of Acceptances (LoAs) issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LoAs) / Contract Agreements on shramikkalyan portal within 15 days of issue of any LoA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.
- (d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.
- (ii) While processing payment of any "On Account Bill" or "Final Bill" or release of "Advances" or "Performance Guarantee / Security deposit", contractor shall submit a certificate to the Engineer or Engineer"s representatives that "I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway"s Shramikkalyan portal at "www.shramikkalyan.indianrailways.gov.in" till Month, \_Year."
- 55-D. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers" Welfare Cess Act, 1996": The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and Rules made thereto by the concerned State Govt., and submit Certificate of Registration issued by Registering Officer of the concerned State Govt. (Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act.
- **56.0** Reporting of Accidents of Labour: The Contractor shall be responsible for the safety of all employees directly or through petty contractors or subcontractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall made every arrangements to render all possible assistance.
- Provision of Workmen's Compensation Act:- In every case in which by virtue of the provisions of section 12 sub-section (1) of the Workmen's Compensation Act 1923, DFCCIL is obliged to pay compensation to a workman directly or through petty contractor or subcontractor employed by the Contractor in executing the work, DFCCIL will recover from the Contractor the amount of the compensation so paid, and, without prejudice to the rights of DFCCIL under Section 12 Sub-section (2) of the said Act, DFCCIL shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by DFCCIL to the Contractor whether under these conditions or otherwise, DFCCIL shall not be bound to contest any claim made against it under Section 12 Sub-section (1) of the said Act except on the written request of the Contractor and upon his giving to DFCCIL full security for all costs for which DFCCIL might become liable in consequence of contesting such claim.

- **Provision of Mines Act:-** The contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or reenactment thereof for the time being in force and any rules and regulations made there under in respect of all the persons directly or through the petty contractors or sub-contractors employed by him under this contract and shall indemnify the DFCCIL from and against any claims under the Mines Act, or the rules and regulations framed there under, by or on behalf of any persons employed by him or otherwise.
- **58.0 DFCCIL not to provide quarters for Contractors: -** No quarters shall normally be provided by the DFCCIL for the accommodation of the contractor or any of his staff employed on the work.
- 59.(1) Labour Camps:- The contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty contractors or sub- contractors and for temporary crèche (Bal-mandir) where 50 or more women are employed at a time. Suitable sites on DFCCIL land, if available, may be allotted to the contractor for the erection of labour camps, either free of charge or on such terms and conditions that may be prescribed by the DFCCIL. All camp sites shall be maintained in clean and sanitary conditions by the contractor at his own cost.
- 59. (2) Compliance to rules for employment of labour: The contractor(s) shall conform to all laws, by-laws rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty contractors or subcontractors on the works.
- 59. (3) Preservation of peace: The contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty contractors or sub- contractors on the works and for the preservation of peace and protection of the inhabitants and security of property in the neighbourhood of the works. In the event of the DFCCIL requiring the maintenance of a special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the contractor and if paid by the DFCCIL shall be recoverable from the contractor.
- **59.(4) Sanitary arrangements:-** The contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the Railway Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative of the Medical staff of the DFCCIL. Should the contractor fail to make the adequate sanitary arrangements, these will be provided by the DFCCIL and the cost therefore recovered from the contractor.
- **59.(5)** Outbreak of infectious disease:- The contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's representative on the advice of the DFCCIL. Should cholera, plague or other infectious disease break out, the contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on health sites as required by the engineer, failing which

within the time specified in the Engineer's requisition, the work may be done by the DFCCIL and the cost therefore recovered from the contractor.

- 59. (6) **Deleted**
- **59.(7) Medical facilities at site: -** The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the DFCCIL in relation to the strength of the Contractor's resident staff and workmen.
- **59.(8)** Use of intoxicants: The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.
- 59.(9) Restrictions on The Employment of Retired Engineers of Railway/DFCCIL Services Within one Year of Their Retirement: The Contractor shall not, if he is a retired Government Engineer of Gazetted rank, himself engage in or employ or associate a retired Government Engineer of Gazetted rank, who has not completed one year from the date of retirement, in connection with this contract in any manner whatsoever without obtaining prior permission of the President and if the Contractor is found to have contravened this provision it will constitute a breach of contract and administration will be entitled to terminate the contract and forfeit Performance Guarantee (PG)and Security Deposits (SD) of that contract.
- **60.(1) Non-employment of labours below the age of 15:-** The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or subcontractors for the execution of work.
- 60.(2) Medical Certificate of fitness for labour: It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Performa at Form No.15) granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work; a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expenses to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.
- 60. (3) Period of validity of medical fitness certificate:- A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.
- **60.(4)** Medical re-examination of labourer:- Where any official appointed in this

behalf by the Ministry of labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 to 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in the regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh certificate of fitness, as the case may be.

#### **EXPLANATIONS:-**

- (1) Only qualified medical practitioners can be appointed as "Certifying Surgeons" and the term "Qualified Medical Practitioners" means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (VII to 1916) or in the Schedule to the Indian Medical Council Act, 1933 (XXVII) of 1933.
- (2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

#### **DETERMINATION OF CONTRACT**

- 61.(1) Right of DFCCIL of determine the contract:- The DFCCIL shall be entitled to determine and terminate the contract at any time should, in the DFCCIL/Railway's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the DFCCIL of such determination and the reasons therefore shall be conclusive evidence thereof.
- 61. (2) Payment on determination of contract on: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Railways/DFCCIL shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The DFCCIL/Railway's decision on the necessity and propriety of such expenditure shall be final and conclusive.
- **61.(3)** The contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.
- **62.** (1) Determination of contract owing to default of contractor: If the Contractor should:-
  - (i) Becomes bankrupt or insolvent, or
  - (ii) Make an arrangement for assignment in favour of his creditors, or agree to carry out the contract under a Committee of Inspection of his creditors, or
  - (iii) Being a Company or Corporation, go into liquidation (other than a

voluntary liquidation for the purposes of amalgamation or reconstruction), or

- (iv) Have an execution levied on his goods or property on the works, or
- (v) Assign the contract or any part thereof otherwise than as provided in Clause 7 of these conditions, or
- (vi) Abandon the contract, or
- (vii) Persistently disregard the instructions of the Engineer, or contravene any provision of the contract, or
- (viii) Fail to adhere to the agreed programme of work by a margin of 10% of the stipulated period, or
- (ix) Fail to Execute the contract documents in terms of Clause 1.3.9 of PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS.
- (x) Fails to submit the documents pertaining to identity of JV and PAN.
- (xi) Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer notice to the effect that the said materials or works have been condemned or rejected under clause 25 and 27 of these conditions, or
- (xii) Fail to take steps to employ competent or additional staff and labour as required under clause 26 of the conditions
- (xiii) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the work or any part thereof as required under clause 28 of the conditions, or
- (xiv) Promise, offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the DFCCIL or to any person on his or on their behalf in relation to the execution of this or any other contract with this DFCCIL.
- (xv) Fail to adhere to the provisions of clause 1.3.32 of PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS or provision of above Clause 59(9).
- (xvi) Submits copy of fake documents/certificates in support of credentials, submitted by the tenderer

Then and in any of the said clause, the Engineer on behalf of the DFCCIL may serve the Contractor with a notice (Proforma at Form No.16) in writing to that effect and if the contractor does not within seven days after the delivery to him such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the DFCCIL shall be entitled after giving 48 hour's notice (Proforma at Form No. 17) in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and after expiry of 48 hour's notice, a final termination notice (Proforma at Form No. 18) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices, only in cases where progress of work is more than or equal to 80% of the original scope of work.

### 62. (2) Right of DFCCIL after, rescission of contract owing to default of

**contractor:** In the event of any or several of the courses, referred to in sub- clause (1) of the clause, being adopted.

- (a) the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed under the contract unless and until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the contractor shall only be entitled to be paid the value so certified.
- (b) In the contract which has been rescinded as a whole, the Security Deposit already with railways under the contract shall be encashed/ forfeited and the Performance Guarantee already submitted for the contract shall be encashed. The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

Further the authorized representative of failed Contractor cannot be accepted as authorized representative in new contract.

- (c) In the contract rescinded in part or parts,
  - (i) The full Performance Guarantee for the contract shall be recovered. No additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract. The contract value of part terminated contract stands reduced to the balance value of work under the contract.
  - (ii) The Security Deposit of part terminated contract shall be dealt as per clause 16(2) of GCC.
  - (iii) The defaulting Contractor shall not be issued any completion certificate for the contract.
  - (iv) The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.
  - (v) Further the authorized representative of failed Contractor will not be accepted as authorized representative in new contract.
- (d) The Engineer or the Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.
- (e) The Engineer shall as soon as may be practicable after removal of the

Contractor fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any constructional plant and any temporary works upon the site. The legitimate amount due to the Contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

# SETTLEMENT OF DISPUTES - INDIAN RAILWAY ARBITRATION AND CONCILIATION RULES

## 63.0 Conciliation of Disputes:-

- (i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.
- (ii) All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the "General Manager /Chief General Manager" through "Notice of Dispute" provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Engineer. Director/MD DFCCIL shall, within 30 days after receipt of the Contractor's "Notice of Dispute", notify the name of conciliator(s) to the Contractor.
- (iii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.
- (iv) If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Engineer In-charge, Contractor and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.
- (v) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
- (vi) The conciliation proceedings shall be terminated as per Section 76 of 'The Arbitration and Conciliation Act, 1996.
- 63.1 Matters finally determined by the DFCCIL - All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the contractor to the Managing Director/Director/Chief General Manage/DFCCIL shall within 120 days after receipt of the contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matter for which provision has been made in clauses 7(j), 8, 18, 22(5),39.1, 39.2, 40A,43(2), 45(i)(a), 55, 55-A(5), 57, 57A,61(1), 61(2),62(1), 63(iv) and 63.2.11 of General Conditions of contract or in any special clause of the conditions of the contract shall be deemed as "excepted matters" (matters not arbitrable) and decisions of the DFCCIL authority, thereon shall be final and binding on the contractor; provided further that "excepted matters" shall stand specifically excluded from the purview of the Dispute Adjudication Board (DAB) and arbitration.

- 63.2 **Dispute Adjudication Board (DAB):** This clause is applicable in the tender having advertised value more than Rs 50 Crore.
- 63.2.1 Any dispute/s if not settled with the Engineer, shall be referred to DAB.

The DAB shall consist of a panel of three Retired Railway Officers, retired not below senior administrative grade (SAG). The DAB shall be formed within 90 days of signing of Contract Agreement. For this purpose, a panel of DAB members shall be maintained in the MD DFCCIL office. The complete panel, which shall not be less than five members, shall be sent by Director/MD DFCCIL to the Contractor to nominate one member of the DAB from the panel as Contractor's nominee within two weeks of receipt of the panel. On receipt of Contractor's nominee, the Director/MD DFCCIL shall nominate one member from the same panel as DFCCIL nominee for the DAB. Both above nominees shall jointly select presiding member of the DAB from the same panel.

- 63.2.2 The appointment of DAB shall be effectuated by way of a tri-partite agreement among the Railway, Contractor and the respective DAB members. The terms of the remuneration of each member shall be as fixed by Ministry of Railways from time to time. Each party shall be responsible for paying one-half of this remuneration.
- 63.2.3 If one or more of the members appointed refuses to act as DAB member, or is unable or unwilling to perform his functions as DAB member for any reason whatsoever or dies or in the opinion of the Director/MD DFCCIL fails to act without undue delay, the parties shall terminate the mandate of such DAB member and thereupon new DAB member shall be appointed in the same manner, as the outgoing DAB member had been appointed.
- 63.2.4 The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Railway or the Contractor acting alone. Unless otherwise agreed by both the Parties, the appointment of the DAB (including each member) shall expire upon expiry of this Contract Agreement.
- 63.2.5 Before start of DAB proceedings, each DAB member shall give the following certificate to the Railway and the Contractor:

  "I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. Further, I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality."
- 63.2.6 DAB proceedings shall be conducted as decided by the DAB. The DAB shall give its decision within 90 days of a Dispute referred to it by any of the Parties, duly recording the reasons before arriving at the decision. The DAB shall decide the issue within terms and conditions of the contract. This time limit shall be extendable subject to the Parties mutual agreement.
- 63.2.7 The DAB decision shall not be binding on both the Parties. In case any party is not satisfied by the decision of DAB, then the aggrieved party may approach Arbitral Tribunal for arbitration proceedings.
- 63.2.8 No dispute shall be referred to Arbitral Tribunal unless the same has been referred to DAB for adjudication. However, in case DAB is not formed due to any reason, the disputes can be directly referred to Arbitral Tribunal to adjudicate the dispute.

- 63.2.9 In the specific cases of any misconduct by any of the members of the DAB, the parties shall have the right to specifically bring it to the notice of the DAB such conduct, through a statement filed with necessary documents in proof of such misconduct and the DAB, after taking NOTICE of such conduct initiate the replacement of the member concerned, in the same manner the member to be replaced was appointed.
- 63.2.10 Once the decision is given by DAB, DAB cannot review the decision at its own or on the request of one party, unless both parties agree for review of decision by DAB.
- 63.2.11 In case DAB decision is not challenged by either party within 180 days of receipt of decision of DAB, the decision shall be considered as final and parties would be barred for referring the same to Arbitral Tribunal for adjudication.
- 63.2.12 The obligation of the Railway and the Contactor shall not be altered by reasons of issue being or under reference to DAB.
- 63.2.13 The DAB shall conduct the proceedings at any convenient venue which shall be decided by DAB in consultations with parties.
- 63.2.14 It is a term of this contract that the Parties shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through DAB and Arbitral Tribunal.

### 64. (1) Demand for Arbitration:-

- 64. (1)(i) In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by the DFCCIL of any certificate to which the contractor may claim to be entitled to, or if the DFCCIL fails to make a decision within 120 days, then and in any such case, but except in any of the "excepted matters" referred to in clause 63.1 of these conditions, the contractor, after 120 days but within 180 days of his presenting his final claim on disputed matters shall demand in writing that the dispute or difference be referred to arbitration.
- **64.(1)(ii)(a)** The demand for arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item wise. Only such dispute or difference, in respect of which the demand has been made, together with counter claims or set off, given by the DFCCIL, shall be referred to arbitration and other matters shall not be included in the reference.
- **64.(1)(ii)(b):** The parties may waive off the applicability of Sub-Section 12(5) of Arbitration and Conciliation (Amendment) Act 2015, if they agree for such waiver in writing, after dispute having arisen between them, in the format given under (Form No. 25) of these conditions.
  - **64. (1) (iii)** (a) The arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the DFCCIL.
    - (b) The claimant shall submit his claim stating the facts supporting the claims along with all the relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal.
    - (c) The DFCCIL shall submit its defence statement and counter claim(s), if

- any, within a period of 60 days of receipt of copy of claims from Tribunal thereafter, unless otherwise extension has been granted by Tribunal.
- (d) **Place of Arbitration**: The place of arbitration would be within the geographical limits of the DFCCIL unit where the cause of action arose or the Headquarter of the DFCCIL or any other place with the written consent of both the parties.
- **64.(1)(iv)** No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.
- **64.(1)(v)** If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the Railways/DFCCIL that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the Railways/DFCCIL shall be discharged and released of all liabilities under the contract in respect of these claims.
- **64.(2) Obligation During Pendency of Arbitration:**Work under the contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the DFCCIL shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should continue during arbitration proceedings.

## 64. (3) Appointment of arbitrator

- **64.(3)(a)(i)** In cases where the total value of all claims in question added together does not exceed 1,00,00,000/- (Rupees One Crore), the Arbitral tribunal shall consist of a sole arbitrator nominated by the MD/DFCCIL The sole arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitrator is received by MD/DFCCIL.
- 64. (3) (a) (ii) In cases not covered by the clause 64(3) (a) (i), the Arbitral Tribunal shall consist of a Panel of three officials, as the arbitrators. For this purpose, the DFCCIL will send a panel of more than 3 names of DFCCIL officers which may also include the name(s) of Officer(s) empanelled to work as Arbitrator to the contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/DFCCIL. Contractor will be asked to suggest to MD/DFCCIL at least 2 names out of the panel for appointment as contractor's nominee within 30 days from the date of dispatch of the request by Railway /DFCCIL. The MD/DFCCIL shall appoint at least one out of them as the contractor's nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the "presiding arbitrator" from amongst the 3 arbitrators so appointed. MD/DFCCIL shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of contractor's nominees. While nominating the arbitrators it will be necessary to ensure that one of them is from the Accounts department. An officer of selection grade of accounts department shall be considered of equal status to the officers in SA grade of other department of DFCCIL for the purpose of appointment of arbitrator.

- **64. (3)(a)(iii)** If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the MD/DFCCIL fails to act without undue delay, the MD/DFCCIL shall appoint new arbitrator/arbitrators to act in his/their place in the same manner in which the earlier arbitrator/arbitrators had been appointed. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator(s).
- **64. (3) (b) (i)** the arbitral award shall state item wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred there from.
- **64.(3)(b)(ii)** A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a tribunal and interpretation of a specific point of award to tribunal within 60 days of receipt of the award.
- **64.(3)(b)(iii)** A party may apply to tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral award.
- **64. (4)** In case of the Tribunal, comprising of three Members, any ruling on award shall be made by a majority of Members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.
- **64.(5)** where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.
- 64.(6) The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include fee of the arbitrator(s), as per the rates fixed by Railway Board from time to time and the fee shall be borne equally by both the parties, provided parties sign an agreement in the format given at Form No. 25 to these conditions after/ while referring these disputes to Arbitration. Further, the fee payable to the arbitrator(s) would be governed by the instructions issued on the subject by Railway Board from time to time irrespective of the fact whether the arbitrator(s) is/are appointed by the Railway Administration or by the court of law unless specifically directed by Hon'ble court otherwise on the matter.
- **64.(7)** Subject to the provisions of the aforesaid Arbitration and Conciliation Act 1996 and the rules thereunder and relevant para of the Standard General Conditions of Contract and any statutory modifications thereof shall apply to the appointment of arbitrators and arbitration proceedings under this Clause.
- 64.(8) In case arbitration award is challenged by a party in the Court of Law, 75% of award amount, pending adjudication by Court of Law, shall be made by party to other party. In case payment is to be made by Railway to Contractor, the terms & conditions as incorporated in the Ministry of Railways letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar,2017 as amended from time to time, shall be followed. In case Contractor has to pay to the Railway, then 75% of the award amount shall be deducted by the Railway from the Contractor's bills, Performance Guarantee/ Security Deposit or any other dues of Contractor with the Government of India.

# PART - I

# **CHAPTER V**

# **SPECIAL CONDITIONS OF CONTRACT**

### SPECIAL CONDITIONS OF CONTRACT

- 1.5.1 This Tender shall be governed by Preamble and 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 10 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 DFCCIL.

# 1.5.5 Quality Assurance Plan for Superstructure

- (a) All materials used in the work shall be of the best quality as per codes / Specifications
- (b) The contractor shall ensure quality at all necessary points, whether at manufacturer's 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.
- 1.5.6 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.
- 1.5.7 This programme of the Contractor shall generally cover the followings: -
- **1.5.7.1** The organization to manage and implement the Quality Assurance programme.
- **1.5.7.2** 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) Incoming 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 Deleted

# 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.

Indemnification by contractor:- In the event of any claim or demand (c) 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 (car policy) in the joint name of the contractor and employer from reputed companies under the following requirements:

- (a) Liability for death of or injury to any person/ employer's staff / animals or things or loss of or damage to any property / things / the work of other contractor (other than the work) arising out of the performance of the Contract.
- **(b)** Construction Plant, Machinery and equipment brought to site by the Contractor.
- (c) Any other insurance cover as may be required by the law of the land.

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.

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 Contactor. 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 subcontractor, 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" 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.5 lakh for any one accident.
- (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:-

- The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the Railway/DFCCIL premises, but shall then conform to the rules and regulations of the Railway/DFCCIL 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/DFCCIL 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. Before execution of work beside / nearby Railway/DFCCIL track the contractor shall get approved the safety and protection plan from the DFCCIL if applicable and required.
- (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/DFCCIL 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 6 months from the date of taking over by the DFCCIL.
- (b) During the period of guarantee the Contractor shall keep available an experienced engineer / man power 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 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/DFCCIL.
- (f) Any materials, fittings, components or equipments / 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, provided in any case that the Contractor has complied fully with his obligations under clause 1.5.15 in respect of each work, provided also that the attention has been paid by way of maintenance by the Employer/DFCCIL.
- (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 and in accordance with accepted schedule of prices, read with relevant para of the other parts and Chapters of the Tender Papers. The DFCCIL 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 the 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.
- 1.5.18.1 The Contractor and concerned staff/Engineer shall ensure that every Running bill & Final Bill shall be technically checked by DFCCIL before making payment. The Contractor shall produce the original documents/Register for which copy is attached with "On Account" Bill at time of checking and/or Technical Scrutiny of the "On Account Bill" as and when asked by Engineer/representative of DFCCIL / Investigating Agency to do so.

- **1.5.19 Performance Guarantee:-** As per Para 16.(4 ) Part –I Chapter-IV of GENERAL CONDITIONS OF CONTRACT
- **Mobilization Advance:-** (Applicable for Advertised tender of value more than Rs.25.00 crore)
- (a) The Tenderer/Contractor may be granted a recoverable interest bearing mobilisation advance up to 10% of the contract value provided mobilisation advance is admissible as per the tender conditions and he specifically applies for it while tendering. If the tenderer fails to apply specifically for Mobilisation Advance while giving his offer at the tendering stage in case where grant of Mobilisation Advance is permissible, no subsequent requests from him for grant of this advance will be entertained. The rate of
  - interest is 4.5% per annum above the Base Rate of State Bank of India, as effective on the date of approval of payment of Mobilisation Advance by the competent authority.
- (b) The advance will be granted in two instalments viz., 5% of the contract value on signing of the contract agreement and the balance 5% on Mobilisation of site establishment, setting up offices, bringing in equipment and actual commencing of work. Each instalment will be released on submission of a security in a form acceptable to the DFCCIL (similar to Performance Guarantee notified in Clause 16.(4) (b) of General conditions of contract for the amount of the at least 110% of the value of the sanctioned advance amount covering instalment together with interest charges calculated up to the end of the contract period. The tenderer who seeks Mobilisation Advance should be specific about the course of action proposed to be followed in producing the security to the satisfaction of the Railway. Each security should be at least not less than one lakh rupees. These securities shall be returned as and when the value of the advance plus interest is recovered from the running bill.
- (c) The recovery of the advance and interest thereon will be made through the every on account bills, pro-rata, commencing from the time the value of the work executed under the contract reaches 15% of the contract value and completed when the value of the work executed under the contract reaches 85% of the contract value or assessed value whichever is less.
- (d) The Mobilisation Advance granted shall be returned back to the DFCCIL in case the work is not completed in the original contract completion period.
- (e) The Bank Guarantee shall be from a Nationalised Bank in India or State Bank of India, in a form acceptable to DFCCIL. (Tender Form No. 19 of the tender documents).

Note: The instruments as listed under Performance Guarantee vide Clause 16 (4) (b) of General Conditions of contract will also be acceptable for Guarantee in case of Mobilisation Advance.

# 1.5.21 Arbitration:- Refer to clause 63 & 64 of GCC.

# 1.6 **GST**

GST as applicable from time to time on taxable value of each running account bill shall be paid. Contractor should bear the fact in mind while quoting the rates that GST will not be paid extra; rates are inclusive of GST as per prevailing rates. Documentary evidence of deposition of GST will be produced by contractor.

# 1.6.1 PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all taxes and duties including GST tax.

The DFCCIL authorities will not take any responsibility of refund of such taxes/fees. Any violation, in the legal provision of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be sole responsibility of the Contractor and his legal heirs.

# 1.6.2 STATUTORY INCREASE IN DUTIES, TAXES ETC

Tenderers will examine the various provisions of the central Goods and services Tax Act, 2017 (CGST)/ Integrated goods and service 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 Credit (ITC) likely to be availed by them is duly considered while quoting rates.

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and shall not be reimbursed to him on any account.

Further DFCCIL shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. At the time of quoting/bidding contractor should bear the above fact in mind.

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.

# 1.6.3 EXCISE DUTY OR ANY OTHER TAXES/DUTIES:

The contractor shall bear full taxes / duties levied by state government and / or Central Government/ Local bodies from time to time. This would be entirely a matter between the contractor and the State / Central Government/ Local bodies. No claim, what so ever, on this account shall be entertained by DFCCIL.

# 1.6.4 ROAD TAX CHARGES:

Road Tax/Charges levied by Government for movement of vehicles of contractor, used in transportation, shall be borne by the contractor and no reimbursement on this account will be made by the DFCCIL.

# 1.6.5 FOREIGN EXCHANGE REQUIREMENTS:

Any demand of foreign exchange for importing of equipment's and materials shall not be accepted.

# 1.6.6 ANTI PROFITEERING CLAUSE.

The contractor should adhere to anti profiteering provisions as per section 171 of the CGST Act. Where due to change in the rates GST/Change in law, the contractor gets any credits/benefits, the same shall be passed on to DFCCIL by way of reduction in prices.

#### 1.6.7 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, as and when Independent External monitor is appointed.

 $Tender\ No.\ DFC\_ADI\_ENG\_ORH\_OCC$ 

# **PART-II**

# **TECHNICAL SPECIFICATION**

# TECHNICAL SPECIFICATIONS

- **2.0** The Materials, workmanship, technical specification refer
  - (i) Standard General Conditions of Contract-2022 of Indian Railways and Standard Specifications (Works and Materials) of CPWD-2019 as amended/corrected upto latest correction slips are to be followed.
  - (ii) CPWD Delhi Schedule of Rates (Vol-I & Vol-II) of 2021, Delhi Schedule of Rates (E&M)-2022, SOR 2022-23 R&B Electrical works as amended / corrected upto latest correction slips are to be followed. Non schedule items and their specification shall be followed. Apart from the basic data, specifications etc. all items of works shall be governed by the Codes & Specifications as detailed and as revised / corrected / amended up to 28 days before the due date of submission of the Bid Proposal.

Further, if any specification(s) mentioned above not available, GOOD industrial practices and/or Manufacturer's catalogue are to be referred in consultation with DFCCIL and decision of DFCCIL shall be final & binding to contractor.

# 2.1 Inspection and Rectification

During execution of said work, the contractor shall provide all facilities to inspect the site to the Engineer-in-charge or his representative.

# 2.2 Erection & Equipment:

- **2.2.1** -- Deleted --
  - 2.2.2 -- Deleted --
  - 2.2.3 Before starting the work, the Contractor shall advise the Engineer fully as to the method he/she proposes to follow and the amount and character of equipment he/she proposes to use, which shall be subjected to the approval of the Engineer. The approval of the Engineer shall not be considered as relieving the Contractor of the responsibility for the safety of his/her method or equipment or from carrying the work in full accordance with the drawings and specifications.
  - **2.2.4** All temporary work shall be properly designed and substantially constructed for the loads, which it will be called upon to support. Adequate allowance and provision of a lateral forces and wind loads shall be made according to local conditions and ensure that support shall not settle during erection.

# 2.3 Further Drawing and Instructions:

(i) Chief General Manager/Dy.CPM DFCCIL shall have full power to make and issue further drawings or instructions or direction from time to time as may appear necessary and proper to the contractor for efficient construction, completion and

maintenance of the works. The contractor shall be bound by the same as fully as be if they had been mentioned or referred to in the contract, and the contractor shall not be entitled to any extra payment in respect of any work or materials shown or directed to be done supplied by such further drawings or instructions required for completion of unless the Chief General Manager/Dy. CPM DFCCIL have given an extra order for the same in writing. The contractor shall be responsible for close scrutiny of the drawings.

- (ii) If the works are required to be done in Railway/DFCCIL Yards and Tracks are to be crossed, the tenderer shall inspect the site and make himself thoroughly acquainted with site condition and quote rate considering these aspects.
- (iii) The work shall have to be done in such a manner that the normal working of the Railway/DFCCIL within the railway/DFC yard does not get disturbed. No material/temporary structures should be kept adjacent to the running track which may infringe rail traffic. The contractor shall take necessary precaution to prevent/cause damage to the Railway/DFCCIL property & staff during the execution of the work.
- (iv) All the work to be executed as per approved drawings, design and instruction of site Engineer/consultant of work no any extra payment shall be made for protection etc.
- (v) The contractor shall execute the work as per the detailed design and drawing of the work.

# 2.4 Commencement of the Erection Work at site:

The contractor shall commence the erection work when and as soon as, but not until, he receives instructions from Engineer to do so.

# 2.5 Contractor to Study Drawing & Specification etc. and His Liability:

The contractor shall be responsible for close scrutiny of the approved drawings supplied by the DFCCIL, For any discrepancies, error or omission in the drawings or other particulars indicated therein, the contractor shall approach the DFCCIL immediately for rectification of indicated therein, the contractor shall approach the DFCCIL immediately for rectification of such discrepancies, errors and omission. If any dimension/figure/features etc. on approved drawings or plans differ from those drawings or plans issued to the contractors at the time of calling the tender, the dimensions as figured upon the approved drawings or plans shall be taken as correct.

# 2.6 Contractor to Submit his Time Table:

The contractor shall submit a monthly progress of work done during the month by the 4<sup>th</sup> day of the following month. He will also give the programme of coming month by 25<sup>th</sup> of each month. The programme will be subject to alteration at the discretion of the DFCCIL officials.

# 2.7 Any Doubted Points to be referred to the Chief General Manager/Dy. CPM/PM, DFCCIL:

Should there be any doubt or obscurity as to anything to be done or not to be

done by the contractor or as to these instructions or as to any matter or thing, the contractor must set forth such doubt or obscurity in writing and submit the same to Chief General Manager/Dy. CPM/PM DFCCIL. Only such reply as the said Chief General Manager/Dy. CPM/PM DFCCIL may be in writing given shall be taken as the authoritative interpretation of the point in doubt or obscurity.

# 2.8 Contractor'(s) Liability:

Any fitting, accessory or apparatus which may not have been mentioned in this specification or the drawings, but which are usual or necessary in the execution of such work, are to be provided by the Contractor without extra payment. The whole work must be completed in all details, whether mentioned in this specification or not, with the exception of such work as has been specified in the schedule of items to be separately provided for in the Contract.

Notwithstanding the specifications and conditions stated in the contract, the contractor shall keep the Engineer/ Employer authority fully indemnified and free from all liabilities and risks consequential to any lapse on his part in respect of material quality, standard of workmanship, accuracy of fabrication and the like. He shall provide all labour and material required for execution of the work as per all standards and specifications.

2.9 Contractor shall establish fully equipped laboratory for all the tests required on materials/processes/products as per provisions of the contract, Specifications and the direction/approval of the Engineer. Costs of these are deemed to be included in the quoted rates. Prior approval of the engineer shall be obtained for non-installation of such testing equipments which cannot be installed in normal course due to any reason. However, engineer's decision (for installation and non-installation) in this regard shall be final binding and conclusive.

# 2.10 Site Facilities by the Contractor:

Contractor shall provide office / site facilities at the approach site / other locations for ensuring smooth and efficient communication and work execution. Cost of these facilities deemed to be included in the quoted rates and nothing extra shall be paid for this item.

Contractor shall (at his own cost) depute / nominate safety officers(s) for supervising safety aspects of all works/process including enabling arrangements for execution and inspection of the work. Safety systems/arrangements should be made for each activity of fabrication/erection and its inspection and same should be certified by nominated safety officer.

# 2.11 METHOD OF MEASUREMENT FOR PAYMENT

The method of measurement and payment for the schedule items shall be done according to SOR/DSR/NS and their specifications.

# PART-III (A) ADDITIONAL TECHNICAL SPECIFICATION

# 1.1 GENERAL:

In these Special Conditions of Contract the following terms shall have the meaning hereby assigned to them except where the context otherwise requires:

"General Condition of Contract" shall mean General Conditions of Contract – as contained in this Tender/ Bid document vide Part I, chapter IV.

Standard Specifications shall mean specifications of CPWD DSR.

Standard Schedule Items/Rates shall mean the Items/Rates in the CPWD DSR.

Standard Schedule Items/Rates shall mean the Items/Rates in the CPWD Delhi Schedule of Rates (Vol-I & Vol-II) of 2021, Delhi Schedule of Rates (E&M)-2022, SOR 2022-23 R&B Electrical works

All other terms shall have the same meaning as assigned to them in the General Conditions of Contract and Standard Specifications.

Where there is any conflict in conditions/Specifications contained in various parts, order of precedence will be as given below-

- Any foot note given by the CPWD SOR/ IRUSSOR in the schedule of quantities and rates.
- Description of item in the Schedule of Quantities and rates.
- · Special Specifications.
- Additional Special Conditions/of Contract.
- Standard Specifications.
- Special Conditions of Contract.
- · General Conditions of Contract.

Where there is any conflict in the description, Unit, rate etc. of items based of CPWD DSR Vol-I & Vol-II as included in the "Schedule of items shall prevail for the respective items of tender.

In the event of conflict between special condition /Technical specification /other guidelines, (available in the tender), the decision of the DFCCIL administration is final and binding to the contractor. No claim in this regard shall be entertained.

Every endeavour has been made to avoid any error which can materially affect the basis of the Bid and it is understood that the Contractor has taken upon himself and provided for the risk of any error which may be subsequently and shall make no subsequent claim on account thereof.

# 1.2 Production of Test Certificates:

The contractor shall have to produce Test Certificates for any items of material procured by him for use in the work as may be called for by the Engineer or his representative to establish that the materials conform to the specification for the works. The Contractor shall produce Test Certificates issued by an authority acceptable to the Engineer in regard to the relevant properties of high tensile steel wires, reinforcement steel or structural steel (as supplied and used by the Contractor) including the country name of manufacturer).

# 1.3. Payment of Royalty Charges:

All taxes, royalty charges, etc. of whatever nature in connection with the work including extraction and supply of rubble stone/stone ballast/sand/Moorum/earth or any other material used on the work shall have to be borne by the Contractor. The Contractor will be required to obtain a royalty clearance certificate from the concerned Revenue Authorities/Collector and produce the same to the Engineer when asked.

# 1.4. Royalties And Patent Rights:

The Contractor shall defray the cost of all royalties, fees and other payments in respect of patents, patent rights and licenses which may be payable to patentee, licensee or other person or corporation and shall obtain all necessary licenses. The contractor shall indemnify, the Railway or any agent, servant or employee of the Railway against any action, claim or proceedings relating to infringement use of any patent or design any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any articles or materials or part thereof included in the contract. In the event of any claim being made or action being brought against the Railway /DFCCIL or employee of the Railway/DFCCIL in respect of any such matters, as aforesaid, The contractor shall indemnify notified thereof. Provided that such indemnify shall not apply when such infringement has taken place in complying with the specific direction issued by the Railway but the contractor shall pay any royalties or other charges payable in respect of any such use.

# 1.5. Income Tax

Income Tax as per rates applicable/amended under the Income Tax Act of work shall be deducted at source unless the contractor is exempted by Income Tax Authorities.

# 1.6 Cutting/Up Rooting Of Trees:

No extra rate shall be paid for cutting or up-rooting trees but the contractor would be authorised to take away the tree observing the forest laws of the land.

# 1.7 Observance of Bonded Labour System (Abolition Ordinance Act, 1975):

The "Bonded Labour System (Abolition Ordinance, 1975)" would apply to the present contract. The contractors shall duly observe the provisions thereof.

# 2.1. Precautions While Working In The Vicinity Of Track:

- **2.1.1** The contractor shall not commence any work in the vicinity of Railway track without presence of authorised DFCCIL official/ concerned Railway supervisor or his representative and contractor's supervisor at site.
- **2.1.2** The look out and whistle caution orders shall be got issued to the trains and speed restrictions where considered necessary shall got imposed, from Railway by DFCCIL. In this regard the contractor shall assist by deploying manpower, providing speed restriction and safety board's etc. No extra payment shall be made to the contractor in this regard.
- **2.1.3** The supervisors/Workmen should be counselled about safety measures. Supplementary site specific instructions, wherever considered necessary shall be issued by the Engineer's representative. The methodology along with safety plan proposed to be adopted by the contractor for execution of the work shall be prepared by the contractor and to be submitted to the Engineer for necessary approval. The Engineer shall approve the

Methodology for ensuring safety at Site. The Contractor shall co-operate the Engineer in obtaining approval of said safety method statement. No extra payment shall be made to the contractor in this regard.

- **2.1.4** The contractor shall keep an assurance register at each site which will have to be signed by Engineer/DFCCIL's authorised official/Engineer's Representative and the Contractor/ his authorised Representative for respective Site.
- **2.1.5** The contractor shall not allow any road vehicle belonging to him or his suppliers etc., to ply in railway land next to the running line. If for execution of certain works viz. Earthwork for parallel railway line and supply of ballast for new or existing rail line gauge conversion etc. road vehicles are necessary to be used in railway land next to the railway line, the contractor shall apply to the engineer in-charge for permission giving the type and no. of individual vehicles, names and license particulars of the drivers, location, duration and timings for such work/movement. The engineer-in charge or his authorised representative will personally counsel examine & certify, the road vehicle drivers, contractor's flagmen and supervisor and will give written permission giving names of road vehicle drivers, contractor's flagmen and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:

The road vehicles and drivers will ply only between sunrise and sunset. Nominated vehicles and drivers will be utilized for work in the presence of at least one guardman/flagman and one supervisor certified for such work.

The contractor shall provide the suitable barricading at distance not less than 3.5m from centre line of the adjoining track, as directed by Engineer/ Engineers representative according to approved safety plan and the Method statement. No extra payment shall be made to the contractor for such barricading. The vehicles shall ply 6m. Clear of track. Any movement/work at less than 6m and upto minimum 3.5 clear of track centre shall be done only in the presence of DFCIL / Railway employee authorised by the Engineer-incharge. No part of the road; vehicle will be allowed at less than 3.5m from track centre. Cost of such railway employee shall be borne by the railway.

The contractor shall remain fully responsible for ensuring safety & in case of any accident, shall bear cost of all damages to this equipment & men and also damages to railway and its passengers.

Semi-permanent fencing as approved by the DFCCIL/Railway Engineer should be provided by the contractor at his own cost along the running line at a distance of 3.5 metres from the centreline of the nearest track at work sites where vehicles/machineries are likely to ply close to the track. This fencing should remain in position till the vehicles/machinery are required to work adjacent to running line.

Engineer-inch rage may impose any other condition necessary for a particular work or site. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground or from solid construction except for such short period work as can be done safely from ladders. when a ladder is used an extra labour shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable foot holds and hand-holds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal to one vertical).

# 2.1.6 Joint procedure for undertaking digging work in the vicinity of underground signalling, electrical and telecommunication cables.

signai	ling, electrical and telecommunication cables.
1	Prior to commencement of the digging work in Railway boundary the contractor shall seek the identification of the underground cables and utilities from the Engineer. The Engineer shall arrange for the joint site inspection with the concerned officers/officials of the relevant departments to locate/identify the underground cables and utilities at site underground cables and utilities. The contractor through Engineer shall approach in writing to Sr.DSTE / DSTE or Sr.DEE/DEE of the section for permitting to undertake the work, after ensuring that the concerned executing agencies, including the contractor have fully understood the S&T and Electrical cable route plan shall permit the work in writing.
2	After getting the permission from S&T or Electrical Deptt. as the case may be, the relevant portion of the cable route plan shall be attached to the letter through which permission is issued to the contractor by Engineer for commencement of work.
3	Engineer/Engineer's representative shall ensure that the contractors have fully understood the cable route plan and the precautions have been taken by the contractor to prevent damage to the underground cables. The contractor shall be asked to study the cable plan and follow it meticulously to ensure that the safety of the cable is not endangered.
4	The Engineer/Engineer's representative shall pass on the information to the concerned SE (P. Way), SE (Works), SE (Sig), SE (Tele), SE (Elect) & Rail Tel official about the works being taken up by the contractors in their sections at least 3 days in advance of the day of the work.
5	On receiving the above information, SE (P. Way), SE (Works), SE (Sig), SE (Tele), SE (Elect) & Rail Tel official shall visit the site on or before the date of taking up the work and issue permission to the contractor to commence the work after checking that adequate precautions have been taken to avoid the damage to the cables. The permission shall be granted within 3 days of submission of such requests. The permission letter shall indicate the contact numbers of Test Room / Network Operations Centre of Rail Tel / TPC/ Elect. Control.
6	Where the nature of the work taken up is such that the OFC or other S&T cables or Electrical cables is to be shifted and relocated, notice of minimum one week shall be given so that the Division / Rail Tel / Construction can plan the works properly for shifting. Such shifting works shall, in addition, for security and integrity of the cables, be supervised by S&T supervisors / Tail Tel supervisors / Electrical Supervisors.
7	The concerned SE(P. Way), SE(Works / SE(Sig) / SE (Tele) SE (Elect) or Rail Tel supervisors, supervising the work of the contractor shall ensure that the existing emergency sockets are not damaged in view of their importance in providing communication during accident / emergency.
8	In case of minor nature of works where shifting of cable is not required, in order to prevent damage to the cable, the Contractor shall take out the S&T or optical fibre cable or Electrical cable carefully from the trench and place it properly alongside at a safe location before starting the earthwork under the supervision

	of SE (Sig) or SE (Tele) or SE (Electrical). The cable shall be reburied soon after completion of excavation with proper care including placement of the brick over
	the cable by the concerned S&T supervisors or Electrical Supervisors. However,
	the work will be charged to the concerned engineering works.
9	In all the sections where major project are to be taken up / going on Rail Tel / S&T Deptt. shall deploy their official to take preventive / corrective action at site of work. The Engineer / Engineer's representative shall help contractor for co-ordination
10	Any damage caused to OFC/Quad cable or Electrical cable during execution of the work, due to negligence of the contractor or his manpower-resources deployed for execution of work necessary debit for corrective action as advised by Railway shall be raised on Contractor and recovery of such debit shall be made from his on account bill or any amount payable for the said work or any other work in DFCCIL.

# 3. Special condition for contractor's Vehicle plying near Railway track.

- 3.1 The contractor shall not allow any road vehicle belonging to him or his suppliers etc. to ply in railway land next to the running line. If for execution of certain works viz. earthwork for parallel railway line and supply of ballast for new or existing rail line gauge conversation etc. road vehicle are necessary to be used in railway land next to the Railway line, the contractor shall apply to the engineer-in-charge for permission giving the type and number of individual vehicles, names and license particulars of the drive, location, duration and timings for such work / movement. The engineer in charge or his authorized representative will personally counsel, examine and certify, the road vehicle drivers, contractor's flagmen and supervisor and will give written permission giving names of road vehicles drivers, contractor's flagmen and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:
- 3.2 Road vehicles can ply along the track after suitable cordoning of track with minimum distance of 6 m from the centre of the nearest track. For plying of road vehicles during nig hours, adequate measures to be communicated in writing along with a site sketch to the contractor / contractor's representative and controlling engineers / supervisors in charge of the work including officers and the in charge of the section.
- 3.3 Nominated vehicles and drivers will be utilized for the work in the presence of at least one flagman and one supervisor certified for suck work.
- 3.4 The vehicles shall ply 6m clear of track. Any movement / work at less than 6 m and up to minimum 3.5 m clear track centre shall be done only in the presence of railway employee authorized by the engineer-in-charge. No part of the road vehicle will be allowed at less than 3.5 m from track centre. Cost of such railway employee shall be born by the railway.
- 3.5 The contractor shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to this equipment and men and also damages to Railway and its passengers.

- 3.6 Engineer-in-charge may impose other condition necessary for a particular work or site.
- 3.7 The staff engaged by the contractor at site should be competent enough for the job. They should possess the certificate of competency certificate, necessary training will be arranged by the contractor at his cost by an expert to enable officer nominated by sectional Sr. DEN/ DEN/Dy CPM- DFCCIL in-charge to accord permission for the job. Without a suitable competency certificate, the contractor's supervisors shall not be allowed to carry out concreting and earthwork.

# 4. Issue of Identity Cards by Contractors:

4.1 The contractor is bound to issue identity card to each and every person employed by him and deployed for execution of contract work as per the prescribed format provided in the tender at his cost. Failure on part of the contractor to issue of identity cards to their employees will be treated as breach of contract conditions.

It is mandatory on part of every employee, deployed by the contractor to keep in his possession the identity card, issued by the contractor throughout the execution of the work. Failure to possess such identity card will be treated as unauthorized presence in the railway premises and such person shall be liable for prosecution as per law. It is mandatory for the contractor to submit the list of the employee issued with the identity cards and deployed for the particular contract, to Railway/DFCCIL Engineer at site before commencement of the work and also for any changes made during the execution of the work.

No claims whatsoever arising out of implementation of special conditions pertaining to issue of identity cards shall be admissible.

### 4.2 Site Lab

The contractor shall be set up a site lab with minimum equipment listed below;

- 1. IS sieve sets for sieve analysis.
- 2. 15 X 15 X15 cms cubes minimum 15 nos.
- 3. Cubes for cement test of 7.09 X 7.09 X cm
- 4. Vicate apparatus.
- 5. Cube testing machine of minimum 100 T capacities.
- 6. Measuring cylinder.

In case they have not brought the aforesaid articles or have not set up the lab, DFCCIL shall set up the same and actual cost plus 10% shall be recovered from the bills.

# 4.3 **Disaster management**

"All the available vehicles and equipment of the contractor can be drafted by the DFC/Railway Administration in case of accidents/natural calamities involving human lives. The payment for such drafting shall be made according to the rates

as shall be fixed by the Engineer. However, if the contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the Dy CPM/CGM-DFCCIL/ within 30 Days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Dy CPM/CGM-DFCCIL/'s decision after hearing both the parties in the matter would be final and binding on the contractor and the Railway."

- (1) Non- employment of labourers below the age of 15:- the contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or sub-contractors for the execution of work.
- Medical certificate of fitness for Labour:- It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under this contract unless a medical certificate of fitness in the prescribed form (proforma at Form No. 15) granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him, in this behalf and he person carries with him, while at work, a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve on the contractor and all the expenses to be incurred on this account shall be borne by him, and no fee shall be changed from the adolescent or his parent for such medical examination.
- (3) Period of validity of Medical fitness certificate: A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewal if in his opinion the holder of it is, no longer for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned state his reasons in writing for doing so.
- (4) Medical Re-examination of Labourer:- Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 16-19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the contractor or the person nominated by him in this regard, a notice requiring that such person shall be examined by a certifying surgeon and such person shall not, if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh, as the case may be.

# 4.4 Submission of Photographs:

4.4.1 The contractor shall arrange to submit two sets of minimum 6 Nos. of photographs of size 5"x7" showing various stages of different activities. The photograph shall be taken for every important activity during execution of work as decided by the Engineer for display and record purpose. In addition, the

contractor will submit 2 sets of 2 laminated photographs of size 12"x18". If the photograph as listed above are not submitted then recovery of Rs. 50,000/shall be made from the contractor's bill.

# 5. Special Conditions for working of Road Cranes:

- 5.1. No machine shall be selected to do any lifting on a specific job until its size and characteristics are considered against the weights, dimensions and lift radii of the heaviest and largest loads.
- 5.2. The contractor shall ensure that a valid Certificate of Fitness is available before use of Road Cranes.
- 5.3. Contractor can utilise the services of any competent person as defined in Factories Act, 1948 and approve by Chief Inspector of Factories.
- 5.4. The laminated photocopies of fitness certificate issued by competent person, the operator's photo, manufacturer's load chart and competency certificate shall always be either kept in the operator cabin or pasted on the visible surface of the lifting appliances.
- 5.5. All lifting appliances including all parts and gears thereof, whether fixed or movable shall be thoroughly tested and examined by a competent person once at least in every six months or after it has undergone any alterations or repairs liable to affect its strength or stability.
- 5.6. In addition, it is also advised that for all the works being executed by the Road Cranes, the above stipulations should be checked. These instructions should be strictly observed.

# 6. FOREIGN EXCHANGE REQUIREMENTS:

Any demand of foreign exchange for importing of equipments and materials shall not be accepted.

# 7. EMERGENCY WORKS

In the event of any accident or failure occurring in the execution of work/ arising out of it which in the opinion of the Engineer requires immediate attention, the DFCCIL/Railway may bring its own workmen or other agency/agencies to execute or partly execute the necessary work or carry out repairs if the Engineer-in-charge considers that the contractor(s) is/are not in a position to do so in time without giving any notice and charge the cost thereof, to be determined by the Engineer-in-charge, to the contractor.

# 8. CUTTING/UP ROOTING OF TREES:

No extra rate shall be paid for cutting or up-rooting trees but the contractor would be authorised to take away the tree observing the forest laws of the land.

# 9. JURISDICTION OF COURTS:

If any dispute arises between the parties with respect to this contract, any application or suit shall be instituted only in the court within the local limits of jurisdiction, the CGM / Ahmedabad DFCCIL Office is situated and both the parties shall be bound by this clause.

# **EXTRA SAFETY PRECAUTIONS**

# 10. **SAFE METHODS**:

The Contractor shall at all times, adopt such safe methods of working as will ensure safety of structures, equipment and labour. Safety rules that should be adhered to are given as guidelines in Annexure C. If at any time, the DFCCIL finds the safety arrangements inadequate or method of working unsafe, the Contractor shall take immediate corrective actions as directed by the Engineer's representative. Any directions in the matter shall in no way absolve the Contractor of his sole responsibility to adopt safe working methods. The Contractor is responsible for providing skilled personnel and adequate expert supervision so as to ensure complete safety.

It is the responsibility of the Contractor to ensure safe loading, transportation and unloading of materials and equipment etc. Any loss or damage caused to adjacent Railway/DFCCIL property will have to be made good by the contractor at his/their own cost, failing which recoveries shall be effected from the running bill of the contractor as per the Clause No. 46(1) of the General Conditions of Contract.

The liability arising out of accidents, if any, to persons will be met by the contractors and the Railway/DFCCIL will not be responsible for any damage or compensation thereof. The contractor shall follow the provisions laid down in Contract Labour Act, 1972.

The contractor shall be entirely responsible for ensuring safety of his labour, vehicles, plant or equipment while working along or near the track and highways and shall programme his working so as not to interfere with the movement of trains and road traffic. No extra payment shall be allowed to the contractor for all safety precautions to be observed during the execution of the work. The cost of all such precautions shall be deemed to be included in the rates for all items of the schedule.

10.1	SAFE WORKING METHODS:
10.1.1	All or some of the works executed under this contract involve works on or alongside the Railway /DFCCIL track on which the railway/DFCCIL traffic is kept operative during or immediately after the completion of one or more phases of the contract work. In view of this position maintaining safe working conditions at the work site at all times for the safe passage of the train traffic is a primary over-riding condition required to be fulfilled by the contractor at all times.

10.1.2	For this purpose, it is understood and agreed to by the contractor that the work executed by him under this contract shall at all times fulfill all the safety conditions in force on the railway from time to time to operate the train traffic.
10.2	PROTECTION OF THE WORK SITE
10.2.1	On railway track where the train traffic will be operational during the execution of the contract work the protection of the works site as considered appropriate and adequate shall be arranged by the Engineer's Representative at the Railway's cost.
10.2.2	Contractor shall be responsible for providing appropriate and adequate system for warning the contractor's workmen about the train traffic on or in the vicinity of the site of work
10.2.3	The contractor shall remain fully responsible for ensuring safety & in case of any accident, shall bear cost of all damages to the equipment & men and also damages to railway & its passengers.

- **10.3** Scaffolding or staging more than 3.5 meters above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached bolted, braced and otherwise secured at least 1 meter high above the floor or platform or staging and extending along the entire length thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- **10.4** Working platform gangways and stairways should be so constructed that they should not sag unduly or unequally, and where the height of the platform or the gangway or the stairway is more than 3.5 meters above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in the para above.
- 10.5 Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 10 metres in length while the width between side rails in swung ladder shall in no case be less than 300 mm for ladders upto and including 3.5 metres in length. For longer ladders this width should be increased by at least 20 mm for each additional metre of length. Uniform steps spacing shall not exceed 300 mm. Adequate precautions shall be taken to prevent danger from electrical equipments. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any persons or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of the defense. of every suit, action or other proceeding at Law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any suits, action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by any such persons.

**10.6 Demolition:** Before any demolition is commenced and also during the process of the work:

All roads and open areas adjacent to the work site shall either be closed or suitably protected;

No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged;

All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding;

No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use, and the Contractor should take adequate steps to ensure proper use of equipment by those concerned. In addition, workers employed on mixing asphalted materials, cement and lime mortar shall be provided with protective goggle.

workers engaged in white-washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles;

workers engaged in welding works shall be provided with protective goggles;

stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

**10.7** The contractor shall submit the methodology proposed to be adopted for execution of works for approval of the DFCCIL/Railway Engineer with a view to ensure safety of trains, passengers & workers and he shall also ensure the methods and arrangements are actually available at site before start of work and contractor's supervisors and workers have clearly understood the safety aspects and requirements to be adopted / followed while executing the work.

**10.8** The contractor shall maintain an assurance register at each site, which shall be got signed by both DFCCIL supervisor as well as contractor's supervisor in token of their having understood the safety precautions to be observed at site.

# 10.9 FORM FOR ENGINEERING WORK PERMIT (EWP)

- 1. Name of the Railway/DFCCIL Supervisor
- 2. Location of work
- 3. Nature of work
- 4. Agency
- Machineries deployed
- 6. Working hours
- 7. I have personally checked the arrangements of rope barricading, fencing at turning locations, posting of staff of Contractor, erection of display boards, training of staff, issue of permits to drivers and I am satisfied that it shall adhere to the standard safety precautions at site as reproduced in the enclosed Annexure 'C' and all relevant.

**Executive/ DFCCIL** 

# Remarks of APM/DFCCIL

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC Remarks of Dy. CPM/PM/DFCCIL Based on the above certificate, I hereby permit the above work for a period of \_\_\_\_\_\_ days i.e. upto \_\_\_\_\_. Dy. CPM/Engg/DFCCIL Date:

# **Notes**

- 1. A copy of this permit on issue shall be pasted on the site order book.
- 2. Each work location shall require separate EWP

# 10.10 ANNEXURE 'C'

Safety precautions: General

Safe working of contractors: A large number of men and machinery are deployed by the contractors for track renewals, gauge conversions, doublings bridge rebuilding etc. it is therefore essential that adequate safety measures are taken for safety of the trains as well as the work force. The following measures should invariably be adopted.

- i) The contractor shall not start any work without the presence of DFCCIL / Railway supervisor or his representative and contractors supervisor at site.
- ii) Where ever the road vehicles and/or machinery are required to work in the close vicinity of railway line, the work shall be so carried out that there is no infringement to the railway's schedule of dimensions. For this purpose the area where road vehicles and/or machinery are required to ply, shall be demarcated and acknowledged by the Contractor. Special care shall be taken for turning/reversal of road vehicles/machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.
- iii) The look out and whistle caution orders shall be issued to the trains and speed restrictions imposed where considered necessary. Suitable flagmen/detonators shall be provided where necessary for protection of trains.
- iv) The supervisor/workmen should be counselled about safety measures. A competent certificate to the contractor's supervisor as per proforma annexed shall be issued by APM which will be valid only for the work for which it has been issued.
- v) The unloaded ballast/rails/sleepers/other P. Way materials after unloading along track should be kept clear off moving dimensions and stacked as per the specified heights and distance from the running track.
- vi) Supplementary site specific instructions, wherever considered necessary, shall be issued by the Engineer-in-charge.
- (vii) The Engineer-in-charge shall approve the methodology proposed to be adopted by the contractor, with a view to ensure safety of trains, passengers and workers and he shall also ensure that the methods and arrangements are actually available at site before

start of the work and the contractor's supervisors and the workers have clearly understood the safety aspects and requirements to be adopted/followed while executing the work.

There shall be an assurance register kept at each site, which will have to be signed by both, i.e. DFCCIL Supervisor or his representative as well as the contractor's supervisor as a token of their having understood the safety precautions to be observed at site."

# 10.11 Supplementary Precautions for working at ROB/RUB site. :- -- Deleted--

# 11.0 Note:-

- a. In the event of conflict between special condition/Technical specifications /other guidelines, (available in the tender) the decision of the DFCCIL administration is final and binding to the contractor. No claim in this regard shall be entertained.
- b. The Contractor and concerned staff/official of DFCCIL shall ensure that every Running bill & Final Bill shall be technically checked before making payment.
- c. Earthwork register, level books, steel registers, Test certificates/Reports etc. whereas required shall be maintained carefully and shall submit along with all Running / final bill for technical checking

# 12.0 PRE CONTRACT INTEGRITY PACT

- 12.1 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.
- 12.2 Integrity pact shall be implemented in this contract, pre-bid pre contract agreement (Integrity Pact) shall be made within 30 days after issue of LOA. The Form-20 is attached in this documents and shall be made on stamp paper of appropriate cost and shall form part of contract agreement.

# PART – III (B)

# ADDITIONAL TECHNICAL SPECIFICATIONS-II DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR SCHEDULE "A"

The work shall be carried out as per DSR-2021 item descriptions and specifications of CPWD DSR and latest instruction/guideline issued.

Item No 50: Providing and fixing to wall ceiling and floor 10.0kg/Cm2 working pressure polytene pipes of the following outside Dia. Low density, complete with special flange compression type fitting, wall clips etc. incl. making good the wall ceiling and floor(G) 110mm

## 1. MATERIALS:

 The specified dia. P.V.C. spigot and socket soil or waste pipe shall conform I.S. 4985-1988 & I.S. 13592:1992.

## 2. WORKMANSHIP:

- The P.V.C. spigot and Socket soil or waste pipe shall be joint as per following procedure.
- Cut the P.V.C. pipe with a fine to the saw to the required length pipe should be cut square.
- Chamfer the edge of the pipe to be inserted at an angle of about 15 to about 1/3 rd. the wall thickness, using a coarse file.
- Make sure the spigot and socket are the roughly clean and dry.
- Insert the pipe into the socket without the seal ring and mark along the pipe, when it is fully inserted.
- Fix the rubber ring into the groove without twisting it.
- Apply jointing lubricant to the chamfered end of the pipe, up to the make made on spigot or to the socket end of the fitting.
- Push the pipe firmly into the socket till the gap between the mark on the spigot and socket is about 10mm to allow for thermal expansion.
- The pipe clips should be spaced at intervals of no more than ten times the outside diameter of pipes for horizontal runs & for vertical lines are spaced at intervals of one meter to a maximum of two motors according to pipe diameter.
- All entry to main stacks should be protected with minimum 50mm water seal trap.
   Wherever there is mixing of soil & waste lines.
- Smoke just should be avoided and test plug/ socket plug should be used for testing the lines.
- All soil pipes shall be carried up above the roof and shall have a wire balloon guard or a cowl.

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- The ventilation pipe or shaft shall be carried out to a height of at least one metre above the outer covering of the roof of the building or in the case of windows in a gable wall or a dormer two meters above the top of the windows. In case of flat roof to which access for use is provided, it shall be carried out up to a height of at least one meter above the parapet or two meters measured vertically from the top of any windows or opening which may exist up to a horizontal distance of five meters from the vent pipe into such building and in no case shall be carried out to a height less than three meters.
- Where ventilating pipes are carried in pipe shafts, the shafts, shall be of a minimum size of one meter. If the shafts are also used to give light and air to rooms, the ventilating pipes must be carried out to a horizontal distance at roof level not less than five meters from the site of the saft. 74.1.14 The connection between the main pipe and branch pipes shall be made by using branches and bends with access doors for cleaning.
- The waste from lavatories, kitchens basins, sinks, baths and other floor traps shall be separately connected to respective stacks of upper floors. The waste stack of lavatories shall be connected directly to main hole while the waste stack of other shall be separately discharged over gully trap.

# 3. MEASUREMENTS:

- The length of pipe shall be measured including all fittings along its length in running meters correct to a centimetre. No allowance shall be made for the portion of pipe length entered in the sockets of the adjacent pipe or fittings.
- The rate includes all labour and materials, tool and plant etc. required for satisfactory completion of this item.
- The rate shall be for a unit of one running meter.

Item No 51: Providing and fixing to wall ceiling and floor 10.0kg/Cm2 working pressure polytene pipes of the following outside Dia. Low density, complete with special flange compression type fitting, wall clips etc. incl. making good the wall ceiling and floor(F) 75mm

Item specification same as per item no. 52 but dia shall be 75mm.

Item No 52: Providing, and fixing PVC SWR Nanhi trap IS 14735 for drain - 100 mm diameter with jali of the following nominal diameter of self-cleaning density with C.I. scread down or hinged grating incl. the cost of cutting and making good the wall.

Item specification same as per DSR item only material PVC SWR Nanhi trap IS 14735 for drain - 100 mm diameter with SS jali.

Item No 63: Providing & fixing in position cowel went to pipes. (B) 75 mm Dia. Item specification same as per DSR item only material 75 mm dia. PVC cowel.

Item No 64: Providing & fixing in position cowel went to pipes. (C) 100 mm Dia. Item specification same as per DSR item only material 100 mm dia. PVC cowel.

# DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR SCHEDULE "B"

The work shall be carried out as per DSR-2021 item descriptions and specifications of CPWD DSR and latest instruction/guideline issued.

# DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR SCHEDULE "C"

Item No. NS/1: Providing and fixing 18mm thick gang saw cut, mirror polished, pre moulded and pre polished, machine cut for Dado on wall, skirting, step, riser, lift facia, in kitchen, facia and similar locations of required size, approved shade, colour and texture laid over neat cement slurry 3.3K/Sqm with chemical adhesive with Granite stone slab colour black / Jet Black, Cherry/Ruby red etc. as instructed by Engineer in charge of DFCCIL.

Item specification for workmanship and measurement are as per DSR item/specifications. Material thickness of granite stone shall be 18mm.

Item No NS/2: Providing & laying approved quality 15 mm thick Artificial stone work of approved shade (selected and sorted for its uniform colour and thickness) on wall dado etc. in required sizes and shapes, set with cement slurry (minimum 4.4 kg cement/sqm) including 35mm to 70 mm thick (Average thickness 50 mm) cement mortar bedding (thickness of mortar bedding to be decided as per requirement and as directed by DFCCIL or his representative) in 1:6 laid and jointed with white cement and matching pigment including rubbing, re-polishing after fixing to remove any undulation between the joints (if required) with different grades of Emery, refilling of open joints, curing, daily cleaning and mopping, shall be done up to the satisfaction of the DFCCIL (Only finished work will be measured.) etc. all complete as per approved sample by Architect, drawings and instruction of DFCCIL. including 4 mm deep groove, at all floors, all levels, all heights and all shapes. The rate includes machine cut edges of uniform thickness and bevelling and polishing of edges, 10 mm wide brass strip fixed in grove. The rate shall be inclusive of protecting the flooring of protection sheet and after completion of work remove.

### 1. Material:

- 15 mm thick Artificial stone work of approved shade, dado on wall shall be used as per approved sample by Architect/DFCCIL.
- Provide necessary 10 mm wide brass strip fixed in grove (or Additive (Roff -Pidilite) chemical) as directed by engineer in charge at time of execution.

# 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

# 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate shall also be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
- 3.1. 5 % Payment will be released after satisfactory cleaning of the work area as per Site In charge.

Item No NS/3: Graffiti make Precast terrazo flooring tiles (Graffiti-Terrazzo or equivalent) sizes 8mm or more, laid in floors landings on a bed of 25mm average thickness of Cement mortar1:4 jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and polishing complete with precast tiles.

## 1. Material:

- Graffiti make precast terrazzo flooring tiles (Graffitti-Terrazzo) sizes 8mm or more thickness shall be used as per approved sample by Architect/DFCCIL.
- Provide necessary joint of width 3mm to 6mm and filled with epoxy (or Additive (Roff-Pidilite) chemical) as directed by engineer in charge at site.

# 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

# 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
- 3.1. 5% Payment will be released after satisfactory cleaning of the work area as per Site In charge

Item No NS/4: Mozart-XL make Precast tiles (Mozart-XL Grey crystal-600x1200 mm or equivalent) Size 8mm or more, cladding on walls on bed of 12 mm 4.06 average thickness of Cement mortar1:6 plaster & jointed with neat cement slurry mixed with pigment to match the shade (or Additive (Roff-Pidilite) chemical) of tiles including rubbing and polishing complete with precast tiles.

# 1. Material:

- Mozart-XL make Precast tiles (Mozart-XL Grey crystal-600x1200 mm) Size 8mm or more shall be used as per approved sample by Architect/DFCCIL.
- Provide necessary joint of width 3mm to 6mm and filled with epoxy as directed by engineer incharge at time of execution.

# 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

## 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
- 3.1. **5**% Payment will be released after satisfactory cleaning of the work area as per Site In charge

Item No NS/5: Supply & Fixing of Nano white stone basin platform 20mm Thick Including of support Kota stone and complete fixing as per directed engineer in charge.

# 1. Materials:

- Nano white stone shall be used as per approved sample by DFCCIL & Architect.
- Tile adhesive and Pigments shall be used of as per approved by DFCCIL/Architect.
- All type of material shall be used for Drinking counter work as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

# 2. Workmanship:

• Two layers of pantry platform, first layer using 25mm thick Kotastone of approved shade and second layer using approved shade and sample of Nano white stone,

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- Joined together with 1:4 Cement mortar bedding / approved tile adhesive, to true plane & level or to slopes, or close jointed with cement slurry with pigment of matching shade and colour and finishing with the same,
- Including dado 1'6", and depth of facia as per arch drawing with moulding, nosing, chamfered front edges, fixing, disposal of debris etc as per working drawing.
- Work complete including all type of joining material, tools, tackles, with finishing, proper even surface etc as per specification and suggestion.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

# 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
- 3.1. **5**% Payment will be released after satisfactory cleaning of the work area as per Site In charge

Item No NS/6: Providing and fixing Designer pre cast jali block size 200 x 200 x 70mm fixing as selected by Architect/DFCCIL with all required material, chemical, labour, equipment, Scaffolding, and with jointing filling as required chemical grout etc. Complete as directed by Engineer in charge.

### 1. Material:

- Pre-Cast Jali Block size 200 x 200 x 70 mm shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.

Item No NS/7: Providing and fixing Designer red bricks size 220 x 69 x 20 mm exterior cladding as selected by architect with all required material, chemical, labour, equipment, Scaffolding, and with jointing filling as required chemical grout etc. complete as directed by Engineer in charge.

- 1. Material:
- Exterior Red brick size 220x69x20mm shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
  - The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
  - 3.1. 5% Payment will be released after satisfactory cleaning of the work area as directed by Engineer In-charge.

Item No NS/8: Providing and fixing of Metalium make Aluminium Metal False ceiling false ceiling at all height including providing and fixing of frame work made of special sections, including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels with powder coted paint suitably fixed, all complete as per drawings, specification and direction of the Engineer.

- 1. Materials:
- Metalium make Aluminium Metal False ceiling false ceiling shall be used as per sample approved by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/ DFCCIL.
- Hardware shall used of as per approved by Architect/DFCCIL.
  - 2. Workmanship:
- Installation: as per above specification for complete work.
- false ceiling should be in complete level without any variation and deviation. There shall be no tolerance in regard to ceiling. Wherever required proper framing has to be executed to

make the surface level.

- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height.
- Work complete as per above manufacturers specification.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of DFCCIL/Architect.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of DFCCIL/Architect.
- No extra payment will be given for any of the reasons.
- Only the clear elevation area of the panelling shall be measured and paid. Contractor shall submit system application certificate from the manufacturer.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
  - 3.1. 5% Payment will be released after satisfactory cleaning of the work area as directed by Engineer In-charge

Item No NS/9: Providing and fixing ISI marked 35 mm thick flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of Second class teak wood ( 250 mm x 75mm ) and well matched commercial 3 ply veneering with vertical grains or cross bands and decorative face veneers on both faces of shutters with two side decorative type veneering ,lipping, cutting rebate, 35mm thick stainless steel butt hinges with necessary screws and bright finished brass tower bolts etc. complete. Including bright finished brass door latch with necessary screws, (250x16x5 mm), bright finished brass handles with screws ( 125 mm ), bright finished brass hanging type floor door stopper with necessary screws, brass morties lock etc. complete.

The work shall be carried out as per above mentioned item and specifications shall be followed as per CPWD DSR and latest instruction/guideline issued.

Item No NS/10: Supply & Fixing of Modular partition, 18mm solid foam sheet cover with both side 0,8 to 1 mm acrylic sheets, including Hardware complete as directed by architect or engineer in charge.

- Materials:
- 18 mm thick water proof foam sheet cover with 0.8 to 1 mm acrylic sheets shall be used as per sample approved by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/ DFCCIL.
- Hardware shall used of as per approved by Architect/DFCCIL.
- 2. Workmanship:
- Installation: as per above specification for complete work.

- Partition should be in complete level without any variation and deviation. There shall be no tolerance in regard to wall finish. Wherever required proper framing has to be executed to make the surface level.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height.
- Work complete as per above manufacturers specification.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of DFCCIL/Architect.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of DFCCIL/Architect.
- No extra payment will be given for any of the reasons.
- Only the clear elevation area of the panelling shall be measured and paid. Contractor shall submit system application certificate from the manufacturer.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.
  - 3.1. 5% Payment will be released after satisfactory cleaning of the work area as directed by Engineer In-charge

Item No NS/11: Supply & Fixing of Ladena basin (Kohler 2215IN-2-0 or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

#### 1. Material:

- Ladena basin (Kohler 2215IN-2-0) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.
- 3.1. 5% Payment will be released after satisfactory cleaning of the provided basin area

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as directed by Engineer In-charge

Item No NS/12: Supply & Fixing of Oblo sensor faucet (Kohler - 24270IN-ND-CP or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

#### 1. Material:

- Oblo sensor faucet (Kohler 24270IN-ND-CP) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/13: Supply & Fixing of Grid drain over flow hole (Kohler-45433IN-CP or equivalent) Including of required plumbing Accessories and Consumable item complete as directed by architect or engineer in charge.

#### 1. Material:

- Grid drain over flow hole (Kohler-45433IN-CP) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

- The rate shall be consolidated for all above items.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/14: Supply & Fixing of Battle trap (Kohler-75823IN-CP or equivalent) including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

#### 1. Material:

- Battle trap (Kohler-75823IN-CP) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/15: Supply & Fixing of Angle valve (Kahler - 115681N-78-CP) including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

#### 1. Material:

- Angle Valve (Kahler 115681N-78-CP) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.

- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/16: Supply & Fixing of Saint gobbin make 8mm thick back painted glass, with ICA Make black pu paint, with fixing on MDF sheet As per required of directed by architect or engineer in charge.

- 1. Materials:
- 12 mm thick good quality MDF sheet shall be used as per sample approved by Architect/DFCCIL.
- 8 mm thick saint gobbin back painted galss with ICA make black pu paint as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
- Hardware shall used of as per approved by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Fixing of 12 mm thick good quality MDF board as per approved sample.
- Fixing of 8mm thick saint gobbin back painted glass with ICA make black PU paint shall be used as per approved sample by Architect/DFCCIL
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
- 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.

Item No NS/17: Supply & Fixing of Saint gobbin make 5mm thick silver Lit up mirror glass, with profile LED, with fixing on MDF sheet As per required of directed by architect or engineer in charge.

- 1. Materials:
- 12 mm thick good quality MDF sheet shall be used as per sample approved by Architect/DFCCIL.
- 5 mm thick silver Lit up mirror glass with profile LED as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
- Hardware shall used of as per approved by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Fixing of 12 mm thick good quality MDF board as per approved sample.

- Fixing of silver Lit up mirror glass shall be used as per approved sample by Architect/DFCCIL. Fixing of Profile LED on MDF sheet shall be used as per approved sample by Architect/DFCCIL.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.

Item No NS/18: Providing and fixing brass bib cock of approved quality (JAQUAR MAKES or equivalent) 15 mm nominal bore ,Jaquar make ORP-10037PM Bib Cock with Wall Flange).

#### 1. Material:

- Brass Bib cock shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/19: Providing and fixing brass stop cock of approved quality (JAQUAR MAKES or equivalent) 15 mm nominal bore, Jaquar make FUS-29083K Exposed Part Kit of Concealed Stop Cock & Flush Cock with Fitting Sleeve, Operating Lever & Adjustable Wall Flange with Seal, Jaquar make ALD-083 Regular Body of Concealed Stop Cock Suitable for 15 mm Pipe Line with Protection Cap).

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#### 1. Material:

- Brass stop cock shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/20: Providing and fixing Single Lever Hi-flow Diverter shower system with Jaquar make or equivalent (FUS-29079NK Single Lever Exposed Parts Kit of Hi-flow Diverter Consisting of Operating Lever, Cartridge Sleeve, Wall Flange (with Seals), Button Assembly Sleeve & Button, ALD-079N Concealed Body for Single Lever High Flow Diverter with Button Assembly, PJ-37429 Bathtub Spout with Wall Flange, SHA-475L280 Shower Arm ø20mm & 280mm Long Round Shape for Ceiling Mounted Showers with Flange, OHS-1799 Overhead Shower ø120mm Round Shape Multi Flow (ABS Body Chrome Plated with Gray Face Plate) with Rubit Cleaning System ) As directed by Engineer in charge.

#### 1. Material:

- Single Lever Hi-flow Diverter shower system shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole

work satisfactorily as per instruction of Architect/DFCCIL.

- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/21: Providing & Fixing JPL-SSF-ST8896 With Specifications as Antifinger print stainless steel body, Brass Spout Movable ABS, top shower, Thermostatic mixer with diverter, Cascade shower, 40cm stainless steel braided hose ,2 Moveable ABS body massage jets, Minimum Water pressure required 2 bar, Hand shower with flexible hose. with oggd condition.

- Material:
- Shower Panel shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/22: Supply & Fixing of Lynk pneumatic faceplate(Kohler-75890IN-P-BL or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

- 1. Material:
- Lynk pneumatic faceplate(Kohler-75890IN-P-BL or equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement

shall be as per instruction of Architect/DFCCIL.

- 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/23: Supply & Fixing of Vive wh toilet with seat (Kohler-77142IN-5-HG1 or equivalent) including of required plumbing Accessories and Consumable item complete as directed by architect or engineer in charge.

- 1. Material:
- Vive wh toilet with seat (Kohler-77142IN-5-HG1 or equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/24: Supply & Fixing of Connector accessories pack (Kohler-1046327-5 or equivalent) including of required plumbing Accessories and Consumable item complete as directed by architect or engineer in charge.

- 1. Material:
- Connector accessories pack (Kohler-1046327-5 or equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.

- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/25: Supply & Fixing of instaflushtm nxt gen-pneu in wall water tank (Kohler-26352IN-P-NA or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

- 1. Material:
- instaflushtm nxt gen-pneu in wall water tank (Kohler-26352IN-P-NA or equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/26: Supply & Fixing of Elate health faucet with hose and bracket(Kohler-97258IN-BL or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

- 1. Material:
- Elate health faucet with hose and bracket (Kohler-97258IN-BL or equivalent) shall be

used as per approved sample by Architect/DFCCIL.

- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

# Item No NS/27: Supply & Fixing of Angle valve (Kohler-80158IN-9-8L or equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge.

- 1. Material:
- Angle valve (Kohler-80158IN-9-8L or equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/28 :Supply & Fixing of Hand dryer (Dolphy or Equivalent) Including of required plumbing Accessories and Consumable Item complete as directed by architect or engineer in charge

#### 1. Material:

- Hand dryer (Dolphy or Equivalent) shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/29: Supply & Fixing of Concealed soap dispenser Including of required plumbing Accessories and Consumable item complete as directed by architect or engineer in charge.

#### 1. Material:

- Soap Dispenser shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
  - The work done shall be measured in Numbers and shall pay accordingly.

Item No NS/30: Providing, excavation & laying in position and fixing drainage pipe below ground of foam core astral/ supreme/prince including all necessary fixture etc complete as per engineer in charge for Dia. 150mm.

- 1. Material:
- 150 dia foam core astral/supreme drainage pipe shall be used as per approved sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Excavation of trench as per DSR specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
  - 3. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- The rate shall be for a unit of running meter.

# Item No NS/31: Providing installation and commissioning Openwell sub pump for UGT to OHT with 2 hp / 1.5 kw/ Single Phase / 33 M.Head /8750 Flow and make Grundfos.

- 1. Workmanship:
- Installation and commissioning of open well from UGT to OHT as per above item approved brand specification including all necessary accessories.
- Work including for all necessary infrastructure to complete work as per engineer incharge.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
  - 2. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of DFCCIL.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of per number.

## Item No NS/32: Providing installation and commissioning Water level for UGT to OHT with WLC- Single Phase and make WMC.

- 1. Workmanship:
- Installation and commissioning of open well from UGT to OHT as per above item approved brand specification including all necessary accessories.
- Work including for all necessary infrastructure to complete work as per engineer incharge.

- Work complete including all types of tools, tackles, labour etc complete at any level and height.
  - 2. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of DFCCIL.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of per number.

Item No NS/33: Providing installation and commissioning Pressure system for water distribution into all bathrooms for building with 1.7 HP/1.3 Kw/. 100 Ltr. Pressure Tank. / Pump having flowrate of 6000 LPH./ 35 mtr head /.Pipe Size 32x25/ Single Phase and make Grundfos.

- 1. Workmanship:
- Installation and commissioning of Pressure system for water distribution in to all bath room for building as per above item approved brand specification including all necessary accessories.
- Work including for all necessary infrastructure to complete work as per engineer incharge.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
  - 2. Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of DFCCIL.
- No extra payment will be given for any of the reasons.
- The rate shall be for a unit of per number.

Item No NS/34: Making core cutting hole in old retaining wall base with 800mm dia hole and depth 0.75m with HILTI Diamond coring machine for new pile casting work etc. complete at depth of existing retaining wall base below 6.0 m from existing Ground level. including all required material, labour, & equipment. as directed by incharge engineer with good quality.

- 1. Workmanship:
- Drilling with core cutting machine in RCC base of retaining wall for new pile casting to the satisfaction of the Architect/DFCCIL etc., complete, at all levels.
- Work including for all necessary infrastructure to make hole below 6.0 mt or retaining wall base level from ground level and thickness of base will be 0.75mt.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
  - 2. Measurements:
- The rate shall be consolidated for all above complete item.
- The rate shall include the cost of all labour, scaffolding, etc. to complete the whole work satisfactorily as per instruction of DFCCIL.
- No extra payment will be entertained.

- The rate shall be for a unit of per number.
  - •The payment of this item shall be released after completion of piling work satisfactory.

Item No NS/35: Thin Profile Glass Partition: Providing & Fixing of STL45 ie. Single glazed modular system consist of Aluminium section of 25\*45\*2.5 mm thick. All sections duly Powder coated/anodised with 6063-T6 grade and required accessories i.e., glass to glass aluminium I sections, T section & 90degree sections & Glass packing to adjust the floor level. Ceiling profile, Floor profile and wall profile are 25 mm visible face and 45 mm wide with 10mm toughen glass as per approved make & insertion of Thermoplastic gasket to adhere the glass firm & airtight. The sound reduction Value is from 32 to 35 Db. With 6 mm Groove inbuilt in system to accommodate the carpet & the uneven surfaces. Work including horizontal thin profile member at lintel level, as per drawing. Accessories/Hardware: neutral cure glazed & metal silicon sealant of approved make on the periphery of the glass & wood etc. Partition height will be measured from finish floor to false ceiling level only. The rate shall be in sq.mt for all floors and at all heights including all costs. Glass width size shall be as per suggestion by DFCCIL. Work complete including all type of material, fittings, fixtures, Finish, loading, unloading, transportation, all accessories, safety measures, sample mockup, all floor, all levels, all heights etc complete as per detailed drawings, specifications & instruction of DFCCIL.

#### 1. Material:

- 10 mm thick toughened glass partition shall be used as per approved make and sample by Architect/DFCCIL.
- Aluminium section shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.
  - 2. Workmanship:
- Work complete as per above specification.
- Work complete including all type of tools, tackles, scaffolding etc complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.
- All the partition should be fitted to ensure accurate positioning & level of the ceiling, flooring, and wall system as per the site/DFCCIL requirements.
  - 3 Measurements:
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. The work done shall be measured in square meter for area of work

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- Partition height will be measured from finish floor to false ceiling level only
- •The rate shall be for a unit of one Square meter.

Item No NS/36: Frosted sparkling glass film (Any Colour and pattern film): Providing and fixing frosted glass film of approved make Translucent, cast PVC, self-adhesive vinyl, special CRYSTAL-effect film to reproduce Sandblasting effect on glass with customised designs. MCS warranty of 3 (if exposed to direct sunlight) to 10yrs (indoors) must be endorsed by manufacturer. Rate shall be inclusive plotter cutting design as per Architect/DFCCIL suggestion. Contractor shall provide shop drawing for approval of Architect/DFCCIL. Work complete including all type of tools, tackles, scaffolding etc complete as per suggestion of Architect/DFCCIL. If in case any application finishing will not as per satisfaction contractor shall remove all film at their cost. Contractor shall do a sample mock of 5 Sqm minimum of glass film), shall be approved from Architect/DFCCIL.

#### 1. Material:

- Frosted glass film shall be used as per approved make and sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above specification.
- Work complete including all type of tools, tackles, scaffolding etc. complete at any level and height
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

#### 3. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Architect/DFCCIL.
  - No extra payment will be given for any of the reasons.
  - Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.
  - The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.

Item No NS/37: Single Leaf Glass Door: Supply & Installation of Modular Aluminium Glass door frame of Kubik or equivalent make 45mm System, Using KOPS 001 & KOPS DF 103 ( 45mm x 25mm) for Glass door frame Doorframe Dimension – 45mm x 25mm. Finish – SILVER finish / Powder coating as per approved sample by Architect .10mm thick. clear toughened Glass .KUBIK Glass Hinge , HAFELE Open Door closer with saddel plate , KUBIK Mortise lock with handle , KUBIK Door stopper etc complete .Work complete including all type of material, fittings , fixtures, Finish, loading , unloading , transportation,

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all leads ,accessories, sample mockup, all floor , all levels, all heights , necessary frame work, Scaffolding , safety measures etc complete as per detailed drawings ,specifications & instruction of DFCCIL/DFCCIL.

- 1. Materials:
  - 10 mm thick toughened glass shall be used as per sample approved by DFCCIL/Architect.
  - Hardware shall used of as per approved by DFCCIL/Architect.
  - All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by DFCCIL/Architect.
- 2. Workmanship:
  - Item includes all necessary fitting / fixing, fixtures, Hardware system with complete as per drawing.
  - All doors should be properly levelled without any sagging and with smooth opening and closing. There should be no variation or deviation of any kinds.
  - The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of DFCCIL/Architect.
- 3. Measurements:
  - The rate shall be consolidated for all above items.
  - The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of DFCCIL/Architect.
  - No extra payment will be given for any of the reasons.
  - Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

Item No NS/38: Providing and fixing with 12 mm thick toughen glass including all, premium series automatic door opening 4.2 x 2.4 clear civil opening, size of sliding double door is 2.0x2.4 and rest is fixed glass,( OZOM -111P-PLUS, Leaf Weight (Double Door): 120x2 Kg Max. Control System: Microcomputer processing controller (Dimension: 260L x 60W x 35T mm). Function: Multifunction connection (Total: 22) and Action adjustment. Hanger: Adjustable double wheel hanger roller (Total 4 pcs) Motor: 65W DC Brushless "Dunker Motor" Installation Method: Surface Installation Door Opening Time: 0.5~10Sec Supply Voltage: AC 220-230V Temperature: -30 to +50 degree. Humidity: 35-85%. Opening and Closing speed: ≤400mm/sec (adjustable) Minimum clear width: 750mm. Manually opening and closing force: <45 N, Cross section: 168mm (W) x 92mm (H), Available Track length: 4200mm.

- 1. Materials:
  - OZOM-111P-Plus 4.2 Mtr Std -(TRACK LENGTH: 4.2MTR), OZOM-AC-99 Microwave Sensor (per pc), OZOM-PR-11 -1.0 mt Zinc -Glass Clamp Rail 1000mm long Zinc, OZOM-FG-11 -Floor Guide for Glass Door, OPS-4-10F SOFT D TYPE PLASTIC SEAL FOR 10-12MM GLASS 3000MM STANDARD LENGTH, OZOM-SL-BR-22N-10Ft PLASTIC BRUSH SEAL FOR 12 MM GLASS; 3000MM STANDARD LENGTH, 12mm thick toughen glass.
  - Hardware shall used of as per approved by DFCCIL/Architect.

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- All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by DFCCIL/Architect.
- 2. Workmanship:
  - Item includes all necessary fitting / fixing, fixtures, Hardware system with complete as per GA drawing of supplier and approved by DFCCIL/Architect.
  - The whole work is to be completed as per installation guide line of product supplier.
- 3. Measurements:
  - The rate shall be in per meter.

Item No: NS/39: Texture paint(Stucco/calcicruda or latest pattern): Wall painting two coats with Stucco OR any pattern of Asian or equivalent approved brand in any shades and colour as directed on wall surface to give an even shade including applying of a one coat of Penetrating primer or equivalent and two coats of paint, scaffolding to at any height with all labour and material thoroughly brushing the surface free from mortar droppings and other foreign matter and sand prepared smooth etc. complete. The substrate must be sound, clean, dry, free from dust, oil, grease and laitance etc. All traces of release agents must be removed. On chalky and dusty surfaces, all loose material must be removed by stiff bristle brushing. The primer / paint application is to be done with the rollers. rate shall be including, safety measures, crack filling and levelling as per manufacturers specification. Top coat should have. 1) Low VOC content. 2) Crack Bridging ability upto 2.6 mm. 3) 100% pure acrylic emulsion 4) Anti-Carbonation concrete protection 5) Very Low Flame spread 6) Superior Washability.

- 1. Materials:
- Texture Paint shall be used as per sample approved by DFCCIL/Architect.
- All type of material shall be used for work as per approved make list and confirming to relevant IS codes and approved by DFCCIL/Architect.
  - 2. Workmanship:
- Scaffolding: Wherever scaffolding is necessary it shall be erected in such a way that as far as possible on part of scaffolding shall rest against the surface to be colour washed. A properly secured strong and well tied suspended platform (Zoola) may be used for painting. Where ladders are used, pieces of old gunny bag shall be tied at top and bottom to prevent scratches to the floors and walls. For paint of ceilings proper stage scaffolding shall be erected where necessary
  - 3. Preparation of surface:
    - The substrate must be sound, clean, dry, free from dust, oil, grease and laitance etc. All traces of release agents must be removed. On chalky and dusty surfaces, all loose material must be removed by stiff bristle brushing. Rate shall be including crack filling and levelling as per manufacturer's specification.
    - Precautions: Splashes on floors etc. shall be cleaned out without delay as they will be difficult to remove after hardening. Washing of surfaces treated with Paints shall not be done within 3 to 4weeks of application.

- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of DFCCIL/Architect.
- Rate shall be including of base coat as per manufacturer's standards.

#### 4. Measurements:

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, finishing, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of DFCCIL/Architect.
- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all wastage, necessary tools tackles etc for fixing at all heights and for all floors.
- Area shall be measured & paid in Square Meter.

Item no NS/40: 3D Wallpaper: Providing and supplying 3D wall papers as approved by Architect. Work complete including all necessary fittings, Design approval from architect, mock up sample, loading, unloading, transportation, placing at all floors and for all leads, all accessories as described in item description. Work complete as per the detailed drawing and instruction of Architect/DFCCIL. Basic rate of wallpaper is Rs. 350/Sq. Ft.

#### 1. Material:

- Customized painting of best quality shall be used as per approved make and sample by Architect/DFCCIL.
- All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by Architect/DFCCIL.

#### 2. Workmanship:

- Work complete as per above manufacturer's specification.
- Work complete including all types of tools, tackles, labour etc complete at any level and height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Architect/DFCCIL.

- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of DFCCIL/Architect.
- No extra payment will be given for any of the reasons.
- The payment shall be made as per the actual work done and Sqm shall be the base for the measurement.

## DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR SCHEDULE "D"

The work shall be carried out as per DSR-2022 item descriptions and specifications of CPWD DSR and latest instructions/guideline issued (Item No. 01 to 35)

#### Note:-

- a) For item no. 01 to 06, recessed (concealed) wiring shall be done as per wiring plan and as per instruction of engineer in-charge at site.
- b) Guarantee/Warranty certificate if applicable shall be handover to DFCCIL after completion and testing of work/item.
- 1. L. T. PANEL, SWITCHGEAR, METER, CTs (ITEM NO. 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46)

#### 1.1 TYPE OF PANEL:

All the PCC's / PDB's / MCC's shall be metal clad, totally enclosed, rigid, floor mounted, Air-insulated, cubical type suitable for operation on three phase / single phase, 415 / 230 volts, 50 Hz.

The PCC's / MCC's shall be designed to withstand the and heaviest condition at site, with minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.

Should conform to Indian Electricity Act and rules (till last amendment) & approved as per FIA norms.

#### VARIOUS CODES FOR ELECTRICAL PANELS

#### A. APPLICABLE IS STANDARDS

1.	METERS (MEASURING) FOR ANALOG METERS	IS:1248-1958
2.	INSTALLATION AND MAINTENANCE OF SWITCH GEARS	IS:3072-1975
3.	H.D. AIR BREAKER, SWITCH GEARS AND FUSES FOR	
	VOLTAGE NOT EXCEEDING 1000 VOLTS	IS:4047-1977
4.	SELECTION, INSTALLATION AND MAINTENANCE OF FUSES	IS:8106-1966
	UP TO 650 VOLTS	
5.	GENERAL REQUIREMENTS FOR SWITCH GEAR AND	IS:4237-1967
	GEAR FOR VOLTAGE NOT EXCEEDING 1000 VOLTS	
6.	DEGREE OF PROTECTION PROVIDED BY	
	ENCLOSURES FOR LV S/GEARS	IS:2147-1962
7.	INSULATED CONDUCTOR RATING	IS:8084-1972
8.	ENCLOSED DISTRIBUTION FUSE BOARDS AND CUT-OUTS	
	FOR VOLTAGE NOT EXCEEDING 1000 VOLTS	IS:2675-1983

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9.	FUSE WIRE USED IN RE-WEARABLE TYPE ELECTRIC FUSES				
	UP TO 650 VOLTS		IS:9926-198	31	
10.	CONDUCTOR FOR INSULATED ELECTRIC CABLES AND				
	FLEXIBLE CORDS		IS:8130		
11.	SHUNT CAPACITORS FOR POWER SYSTEMS		IS:2834-195	54	
12.	HRC CARTRIDGE FUSES AND LINKS UP TO 660 VOLTS		IS:2208		
13.	HRC FUSES HAVING RUPTURING CAPACITY OF 50 KA	IS:9224			
14.	AC ELECTRICITY METERS: PART – 1 GENERAL REQUIREMENETS				
	AND TESTS	_	IS:772 PAR	T1	
15.	DIRECT ACTING ELECTRICAL INDICATING INSTRUMENTS	S	IS:1248		
16.	CURRENT TRANSFORMERS		IS:2705		
17.	ELECTRICAL RELAYS FOR POWER SYSTEMS PROTECTI	STEMS PROTECTION IS:3231			
18.	PHOSPHATE TREATMENT OF IRON AND STEEL FOR PROTECTION				
	AGAINST CORROSION		IS:3618		
19.	GUIDE FOR MARKING OF INSULATED CONDUCTOR		IS:5578		
20.	CODE OF PRACTICE OF PHOSPHATING OF IRON AND ST	CODE OF PRACTICE OF PHOSPHATING OF IRON AND STEEL IS:6005			
21.	FACTORY BUILT AASEMBLIES OF SWITCHGEAR AND CONTROL-				
	GEAR FOR VOLTAGES UPTO AND INCLUDING 1000V AC AND 1200V DC. IS:8623				
22.	GUIDE FOR UNIFORM SYSTEM MARKING AND IDENTIFIC	OITA	V		
	OF CONDUCTORS AND APPARATUS TERMINALS	,, ,,,,,,,,	IS:11353		
23.	LOW VOLTAGE FUSES		IS:13703		
24.	LV SWITCHGEAR AND CONTROL GEAR (PART 1 TO PART	T 5)	IS:13947		
25.	STRUCTURE CONSTRUCTION (IP-54)	. 0)	IS:2147		
26.	MINIATURE CIRCUIT BREAKER (MCB) BS:3871 (PART-1) 1	1965	.0.2	IS:8825	
_0.	(1996)			.0.0020	
27.	FUSE		IS:2000-196	32	
28.	AIR CIRCUIT BREAKER		IS:2516PART 1,2,3		
29.	CONTACTORS	IS:2959 & BS:775			
30.	DIGITAL METER	IS:13779			
31.	ELECTRICAL POWER & CONTROL WIRING CONNECTION				
0	WIRING INSIDE THE MODULE FOR POWER, CONTROL PI		CTION		
	THAT IN OBE THE MOBULET ON TOTAL A, COMMODITY		4 & IS:8130		
32.	DANGER NOTICE PLATE	10.00	IS:2551-198	32 &	
02.	5, 11, 02, 11, 11, 11, 11, 11, 11, 11, 11, 11, 1	IS:5-1		<i>2</i>	
33.	MCCB	.0.0	IEC 60439-2	2 /	
00.		IS:862		_ ,	
34.	SFU	10.001	IS:13947 (P	ART-3)	
<b>O</b> 1.		& IFC	60947-3	,	
35.	ELCB	<u>پ ، ـ - 0</u>	BS 3871 & 4	4293	
00.		IS.,CE		00 ,	
		,			

#### 1.2 STRUCTURE:

The PCCs, MCCs & PDBs shall be metal clad enclosed and be fabricated out of high quality CRCA sheet, suitable for indoor installation, front operated and floor mounting type.

CRCA sheet steel used in the construction of PCCs / MCCs / PDBs shall be 2 mm thick

for structure, 1.6 mm thick for doors, covers shrouds and 3 mm thick for gland plate and shall be folded and braced as necessary to provide a rigid support for all components. Joints of any kind in sheet shall be seam welded, all welding slag grounded off and welding pits wiped smooth with plumber metal.

The PCCs / MCCs / PDBs shall be totally enclosed, completely dust and vermin proof and degree of protection being no less than IP-54 confirming to IS 2147. Gaskets between all adjacent units and beneath all covers shall be provided to render the joints dust proof. All doors and covers shall be fully gasketted with neoprene gaskets and shall be lockable.

All panels and covers shall be properly fitted and secured with the frame, and holes in the panel correctly positioned. Fixing screw shall enter into holes taped into an adequate thickness of metal or provided with bolts and nuts. Self-threading screws shall not be used in the construction of PCCs / MCCs / PDBs.

A base channel of 75 mm x 75 mm x 5 mm or as per the weight of the panel shall be provided at the bottom.

PCCs / MCCs /PDBs shall be arranged in multi-tier formation. The PCCs / MCCs / PDBs shall be of adequate size to facilitate enough space for maintenance and cooling. The size of the PCCs / MCCs / PDBs shall be designed in such a way that the internal space is sufficient for hot air movement, and the electrical component does not attain temperature more than 40 degree Celsius. Openings shall provide for natural ventilation, but the said openings shall be screened with fine weld mesh.

Knockout holes of appropriate size and number shall be provided in the PCCs / MCCs/PDBs in conformity with number, and size of incoming and outgoing conduits / cables.

Alternatively the PCCs / MCCs / PDBs shall provided with removable sheet plates at top and bottom to drill holes for cable / conduit entry at site.

The PCCs / MCCs / PDBs shall be designed to facilitate easy inspection, maintenance and repair.

The PCCs / MCCs / PDBs shall be sufficiently rugged in design and shall support the equipment without distortion under normal and short circuit condition they shall be suitable braced for short circuit duty

#### 1.3 PROTECTION CLASS:

All the indoor PCCs / MCCs / PDBs shall have protection class of IP - 54.

#### 1.4 POWDER COATING:

All sheet steel material shall undergo seven-tank process after all the necessary shearing and other mechanical works are completed. After the seven-tank process powder coating treatment shall be adopted using powder of reputed make. After the powder coating is complete welding in the panel or any sort of shearing, bending or cutting activity shall not be done. The colour shall be Siemens Grey 631

#### 1.5 CIRCUIT COMPARTMENT:

Each circuit breaker and switch fuse units shall be housed in separate compartments

and shall be enclosed an all sides. Sheet steel hinged lockable door shall be duly inter locked with the breaker / switch fuse units in ON and OFF position. Safety interlocks shall be provided for non-opening of the door when the breaker is in ON position.

The door shall not form integral part of the draw out position of the circuit breaker. All instruments and indicating lamp shall be mounted on the compartment door. Sheet steel barriers shall be provided between the tires in a vertical section.

#### 1.6 INSTRUMENT COMPARTMENT:

Separate and adequate compartment shall provided for accommodating instruments, indicating lamp, control contactors, relays and control fuses etc. These components shall be accessible for testing and maintenance without any danger of accidental contact with live parts of the circuit breaker, switch fuse units, busbars and connections.

#### 1.7 BUSBARS:

The busbar shall be air insulated and made high quality, high conductivity, high strength copper and as per relevant IS code. The busbar shall be for three phases and neutral system with separate neutral and earth bar. The busbar and interconnection between busbar and various components shall be of high conductivity, hard drawn, electrolytic copper. The busbar shall be of rectangular cross section designed to withstand full load current for phase busbar and full rated current for neutral busbar and shall be extensible type on either side. The busbar shall be rated for the frame size of the main incoming breaker. The busbar shall have uniform cross section through out the length. Ratio of 1 sqmm = 1.2 A shall be adopted for tinned copper busbars.

The busbar and interconnection shall be insulated with heat shrinkable PVC sleeves and be colour coded in red, Yellow, Blue and Black to identify the three phases and neutral of the system. The busbar shall be supported on unbreakable, non hygroscopic DMC insulated supports at sufficiently close interval to prevent busbar sag and shall effectively withstand electromagnetic stresses in the event of short circuit capacity of 50 KA RMS symmetrical for one second and a peak short circuit withstand of 105 KA minimum.

The busbar shall be housed in a separate compartment. The busbar shall be isolated with 3 mm thick FRC sheet to avoid any accidental contact. The busbar shall be arranged such that minimum clearances between the busbar are maintained as per below.

Between phases : 27 mm min.
Between phases and neutral : 25 mm min.
Between phases and earth : 25 mm min.
Between neutral and earth : 23 mm min.

All busbar connection shall be done by drilling holes in busbars and connecting by chromium plated bolt and nuts. Additional cross section of busbar shall be provided in all PCCs / MCCs / PDBs to cover-up the holes drilled in the busbars. Spring and flat

washers shall be used for tightening the bolts.

All connection between busbar and circuit breaker / switches and between circuit breaker/ switches and cable terminals shall be through solid copper strips of proper size to carry full rated current. These strips shall be insulated with insulating strips.

#### 1.8 ELECTRICAL POWER & CONTROL WIRING CONNECTION:

Terminal for both incoming and outgoing cable shall be suitable for 1100 volts grade, copper conductor PVC insulated and sheathed, armoured cable and shall be suitable for connections of solder less sockets for the cable size as indicated on the appended drawing for the PCCs, MCCs, PDBs.

Both control and power wiring shall be brought out in cable alley for ease of external connections, operation and maintenance.

Both control and power terminals shall be properly shrouded.

10% spare terminal shall be provided on each terminal block. Sufficient terminals shall be provided on each terminal block so that not more than one outgoing wire connected per terminal.

Terminal strip for power and control shall preferably be separated from each other by suitable barriers of enclosures.

Wiring inside the module for power, control protection and instrument etc. shall be done with use of 660/1100 V confirming to IS 694 and IS 8130. Power wiring inside the starter module shall be rated for full current rating of contactor, but not less than 4 sq mm cross section area. For current transformer circuits, 2.5 sq mm-copper conductor wire shall be used. Other control wiring shall be done with 1.5 sq mm copper conductor wires. Wires for connections to the door shall be flexible. All conductors shall be crimped with solder less sockets at the ends before connections are made to the terminals.

Control power for the motor starter module shall be taken from the respective module switchgear outgoing from R phase and Neutral. Control wiring shall have control fuse (HRC type).

Particular care shall be taken to ensure neat and orderly laying of the wiring. Identification ferrules shall be tagged to all the wire termination for ease of identification and to facilitate and testing.

"CUPAL" washers shall be used for all copper and aluminium connections.

Final wiring diagram of the PCC, MCC, PDB power and control circuit with ferrules number shall be submitted along with the PCC/MCC/PDB as one of the documents.

#### 1.9 TERMINALS:

The outgoing terminals and neural link shall be brought out to a cable alley suitably located and accessible from the panel front. The current transformer for instrument metering shall be mounted on the disconnecting type terminal blocks. No direct

connection of incoming and outgoing cables to internal components connection of the distribution board is permitted. Only one conductor may be connected in one terminal.

#### 1.10 WIREWAYS:

A horizontal PVC wire way with screwed covers shall be provided at the top to take interconnecting control wiring between different vertical sections.

#### 1.11 CABLE COMPARTMENT:

Cable compartment of adequate size shall be provided in the PCCs, MCCs, and PDBS for easy termination of all incoming and outgoing cables entering from top. Adequate support shall be provided in the cable compartment.

#### 1.12 EARTHING:

Copper earth busbar of minimum 35 mm x 6 mm size shall be provided in the PCCs, MCCs, PDBS for the entire length if panel. As per the rating of the main busbars the size of earthing busbar shall be decided. The framework of the PCCs, MCCs, PDBs shall be connected to this earth busbar. Provisions shall be made for connection from earth busbar to the main earthing bar coming from the earth pit on both sides of the PCCs, MCCs, PDBs.

The earth continuity conductor of each incoming and outgoing feeder shall be connected to this earth bar. The armour shall be properly connected with earthing clamp and the clamp shall be ultimately bounded with the earth bar.

#### 1.13 LABELS:

Engraved Aluminium sheet labels shall be provided on all incoming and outgoing feeders. Single line circuit diagram showing the arrangements of circuit inside the distribution board shall be pasted on inside of the panel door and covered with transparent laminated plastic sheet.

#### 1.14 NAME PLATE:

A name plate with panel designation in bold letter shall be fixed at top of the central in panel. A separate name plate giving feeder details shall be provided for each feeder module door.

Inside the feeder compartment, the electrical component, equipments, accessories like switchgear, contactor, lamp, relays etc. shall suitably be identified by providing stickers.

Engraved nameplates shall be of Aluminium strip of black colour and silver letters format.

Nameplate shall be fastened by counter sunk screws / riveted and not by adhesives.

#### 1.15 DANGER NOTICE PLATE:

The danger plate shall be affixed in a permanent manner on operating side of the panel.

The danger notice plate shall indicate danger notice both in Hindi and English and with a sign of skull and bones.

The danger notice plate in general shall meet to requirements of local inspecting authorities.

Overall dimension of the danger notice plate shall be 200 mm wide and 150 mm high. The danger notice plate shall be made from minimum 1.6 mm thick mild steel sheet and after due pre-treatment to the plate, the same shall be painted white with vitreous enamel paint on both front and rear surface of the plate.

The letter, the figure, the conventional skull and bones shall etc. shall be positioned on the plate as per recommendations of IS: 2551-1982.

The said letter, the figure and the sign of skull and bones be painted in single red colour as per IS: 5-1978.

The danger plate shall have rounded corners. Locations of fixing holes for the plate shall be decided to suit design of the panel.

The danger notice plate, if possible, be of ISI certification mark.

#### 1.16 INTERNAL COMPONENTS:

The PCC / MCC / PDB shall be equipped complete with all type of required number of air circuit breakers, switch fuse unit, contactor, relays, fuses, meters, instruments, indicating lamps, push buttons, equipment, fittings, busbar, cable boxes, cable glands etc. and all the necessary internal connections /wiring as required and as indicated on relevant drawings. Components necessary for proper complete functioning of the PCC / MCC / PDB but not indicated on the drawings shall be supplied and installed on the PCC / MCC / PDB.

All part of the PCC / MCC/ PDB carrying current including the components, connections, joints and instruments shall be capable of carrying their specified rated current continuously, without temperature rise exceeding the acceptable values of the relevant specifications at any part of the PCC / MCC / PDB.

All units of the same rating and specifications shall be fully interchangeable.

#### 1.17 INSPECTIONS / TESTING:

Each equipment should inspect and witness by client & consultant.

The PCC / MCC / PDB shall be inspected and checked as per inspection manual of the PCC / MCC / PDB manufacturer.

Various electrical components and accessories of the PCC / MCC / PDB shall be checked as per drawing for the respective PCC / MCC / PDB.

The PCC / MCC / PDB shall be checked for rigid mounting, earthing connections, proper rating and size of components, internal wiring, etc.

All mechanical fasteners and electrical connections shall be checked and tightened before installation.

#### Type test:

Type test certificates for all switchgears shall be provided.

#### **Routine Test:**

Prior to dispatch of the PCC / MCC / PDB following tests shall be carried out.

- a) Mechanical endurance test shall be carried out by closing and opening of all the ACB's, MCB's switches etc.
- b) Over voltage and Insulation resistance test shall be carried out between phases and between phase to earth bus, keeping the isolating switch in ON position. Similar test shall be carried out keeping the isolating switch in closed position.
- c) All the interlocks, controls and tripping mechanism of the switchgears shall be tested for their proper functioning.
- d) High voltage test, Continuity test, Control circuit test shall be carried out.

#### 1.18 L. T. SWITCHGEARS:

#### 1.18.1 **GENERAL**:

The type, size, and rating of the components shall be as indicated on the relevant single line diagrams.

#### 1.18.2 MINIATURE CIRCUIT BREAKER (MCB):

Miniature circuit breakers shall be quick make and break and break type conform with British standard BS: 3871 (Part-I) 1965 and IS: 8825 (1996). The housing of MCBs shall be heat resistant and having high impact strength. The fault current of MCBs shall not be less than 10000 amps, at 230 volts. The MCBs shall be flush mounted and shall be provided with trip free manual operating mechanism with mechanical "ON" and "OFF" indications.

The circuit breaker dollies shall be of trip free pattern to prevent closing the breaker on a faulty current.

The MCB contact shall be silver nickel and silver graphite alloy and tip coated with silver. Proper arc chutes shall be provided to quench the arc immediately. MCB's shall

be provided with magnetic fluid plunger relay for over current and short circuit protection. The over load or short circuit devices shall have a common trip bar in the case of DP and TPN miniature circuit breakers. All the MCB's shall be tested and certified as per Indian Standard, prior to Installation.

#### 1.18.3 FUSE:

Fuses shall be of high rupturing capacity (HRC) fuse links and shall be in accordance with IS: 2000-1962 and having rupturing capacity of not less than 35 MVA at 415 Volts.

#### 1.18.4 AIR CIRCUIT BREAKER:

The ACB shall meet with IS: 2516 part I, II and III. Each pole of the ACB's shall be equipped with and over current, earth fault and short circuit release. The ACB's shall be equipped with under voltage trip only on those used as main incomer of all sources, bus coupler and inter connector. The trip devices shall be direct acting.

Disconnecting devices of approved type shall be provided to facilitate the removal of the circuit breakers from the housing for test and maintenance purpose.

The ACB's shall have an arc-quenching device on each pole. The ACB's shall have auxiliary contacts for signaling, interlocking etc. The ACB's shall have slow close facilities for checking contact operation and contact gap adjustment.

All contacts subject to arcing shall be tipped with arc resisting material. Main contacts shall be silver plated, multi-finger and spring-loaded type. Facilities shall be provided to isolate the circuit breaker for inspection purpose.

Interlocks shall be provided to:

Prevent the breaker from being isolated unless it is in the "OFF" position.

Prevent the breaker from being racked in to the service position unless it is in the "OFF" position.

Prevent the breaker from being accidentally pulled completely "OFF" the guide rail. Safety shutters of insulating material shall be provided to prevent access to all live contacts, when the breaker is in the inspection position or completely withdrawn.

Facilities shall be provided for earthing the circuit breaker.

Air circuit breaker shall be capable of clearing the maximum fault current, which can occur.

The breaker plates shall have an ON-OFF indicators, spring charge indicators, provision to padlock manual handle and provision to lock draw-out mechanism. Electrically operated breaker shall have provision for emergency manual closing by inserting a tool through the fuse plate. A control isolating switch shall be provided on the fuse plate to

isolated the supply to the charging motor.

#### 1.18.5 MOULDED CASE CIRCUIT BREAKER:

The MCCB shall be air break type and having quick make quick break with trip free operating mechanism.

Housing of the MCCB shall be of heat resistant and flame retardant insulating material.

Operating handle of the MCCB shall be in front and clearly indicate ON / OFF / TRIP positions.

The electrical contact of the circuit breaker shall be of high conducting non-deteriorating silver alloy contacts.

The MCCB shall be provided with microprocessor based trip units. All the releases shall operate on common trip busbar so that in case of operation of any one of the releases in any of the three phases, it will cut off all the three phases and thereby single phasing of the system is avoided.

The MCCB whenever called for in the drawings shall provide an earth fault relay.

The MCCB shall provide two sets of extra auxiliary contacts with connections for additional controls at future date.

#### 1.18.6 CONTACTORS:

The contactor shall meet with the requirements of IS: 2959 and BS: 775.

The contactors shall have minimum making and breaking capacity in accordance with utilization category AC 3 and shall be suitable for minimum class II intermittent duty.

If the contactor forms part of a distribution board then a separate enclosure is not required, but the installation of the contactor shall be such that it is not possible to make an accidental contact with live parts.

#### 1.18.7 TRIVECTOMETER:

Flush mount 96 x 96 x 80 mm load manager type Enercon EM 6400 or equivalent meter of accuracy class 1 as per IS 13779 shall be provided. The meter shall be accurate on distorted waveforms; simultaneous sampling of voltage and amperes shall be done. It shall have low burden on PT and CT shall have bright display, shall view 3 parameters together shall have auto scaling from kilo to mega to giga units, shall have programmable CT, PT ratios with built in phase analyser. Auto scrolling shall be programmable as per user choice and communication with PC; PLC DCS shall be possible through RS 485 serial port. It shall be dust proof, tamper proof with data import export option and 10 years back up of integrated data.

Parameters to be monitored shall be Frequency, Line to line and average and line to neutral and average voltage, phase wise and average current, phase wise and total KVA, KW and P.F. reading and KWH monitoring.

User programmable facility for delta 2e and star 3e measurement, C.T. and P.T. ratios, sliding window auto sync. And auto scrolling of parameters shall be available.

Sensing shall be 3 phase, 4 wire measuring True RMS with voltage input range of 110 to 415 V nominal and current input of 5 amps or 1 amps as per field configuration. Current range shall be from 50 mA to 7.5 A and burden on PT or CT shall be app 0.2 VA.

Accuracy for kW / kWh shall be as per IS 1377 / CBIP88 and for all other parameters shall be +/- 0.5% of full scale + 0.5% of reading + 1 digit. Digital readout shall be of 3 rows of 4 digits each (12.5 mm size) with 7 segments bright red LED. Input frequency shall be 50Hz / 60Hz +/- 5%. Power factor range shall be 0.5 lag – unit – 0.8 lead.

Resolution for power parameters shall be for 4 digits and energy parameters shall be 8 digits. Display update shall be at every 15 seconds for demand parameters and 1 sec for other parameters. Display sequence shall be parameter followed by value. Temperature range shall be 0-50°C and humidity <95% non-condensing.

Display pages shall be as follows: Instantaneous – VLL, A avg., F

VLn, A avg., F KVA, kW, PF

Individual pages of above parameters.

Integrated - kVAh

KWh Run hours

On hours Interruption

#### 1.18.8 CURRENT TRANSFORMER:

Where called for, CT's shall provided for current measuring. Each phase shall be provided with separate CT of class I accuracy and VA burden as shown in SLD for operation of associated metering and controls. Current transformer shall be in accordance with IS: 2705- 1964 as amended up to date.

#### 1.18.9 **PUSH BUTTON**:

The push button unit shall comprise of the contact element, a fixing holder, and push button actuator. The push button shall be momentary contact type. The contacts shall be of silver alloy and rated at 10 Amps. Continuous current rating. The actuator shall be of stranded type and colour as per its usage for ON, OFF and Trip.

#### 5.18.10 INDICATING LAMP:

The push button unit shall comprise of the contact element, a fixing holder, and push button actuator. The push button shall be momentary contact type. The contacts shall be of silver alloy and rated at 10 Amps. Continuous current rating. The actuator shall be of stranded type and colour as per its usage for ON, OFF and Trip. Push button shall be of self-glowing type with LED lamp.

Indicating Lamp shall be LED type and shall supplied complete with translucent covers to diffuse the lamp light. Indicating lamps shall be part of push buttons.

Colour shade for the indicating lamps shall be as below:

ON indicating lamp : Green
OFF indicating lamp : Red
TRIP indicating lamp : Amber

PHASE indicating lamp : Red, Yellow, and Blue.

#### Workmanship

The contractor shall erect the panel at site in co-ordination with the supplier if required. He should check for loose ends on the part of the supplier and shall inform client and consultant for the same. Physical and continuity tests shall be carried out by contractor. Also the field tests carried out by the supplier shall be recorded by the contractor.

#### Mode of measurement

Contractor shall be paid for one panel erection.

#### Fire Extinguisher (Item No. 44)

Supplying & erecting D.C.P. type fire extinguisher for following capacity cartridge type with gun metal cap 150 gram CO2 gas cartridge, powder and brackets confirming to IS 2171 1985 and complete erected with necessary clamps made from 50 x 6 mm M S Flat with nuts and bolts grouted in wall complete. [A] For 5 Kg Capacity

#### 2. UPS (ITEM NO. 45)

Online Un-interruptible Power Supply system comprising flat cum-boost charger, static Inverter & sealed maintenance free SMF batteries. The charger having perating capacity for input 160-270V AC & inverter having output 230V,50 Hz Ac with 0.8 load power factor with battery, over/under voltage output with over load & short circuit protection equipment. The system housed in CRC sheet duly powder coated paint with following power backup.with MS painted batteries stand, 10% Overload capacity for momentary load 7.5 KVA 3 - phase with 1Hr Backup Certification: BIS - 3 phase incoming and 1 phase outgoing

#### TECHNICAL SPECIFICATIONS FOR ON-LINE UPS SYSTEM

11.1 INPUT

Voltage : 380-415 Volts, 3 Phase 4 wire

Voltage Variation : +/- 20% at 100% load and +20 to -50% on

50% load

Frequency : 50 / 60 Hz
Frequency Variation : 45 Hz to 65 Hz
Power Factor : 0.99 lag to unity

Input Current Distortion : 2-5% THD in nominal load condition

**11.2 OUTPUT** 

Rating : 7.5 KVA N+1 REDUNDANCY

Voltage : 230Volts, 1 Phase

Voltage Variation : +/- 1% with 100% unbalance

Volts Adjustment : +/- 2% static and +/- 5% dynamic at 100%

load change with < 1 ms response time

Power Factor : 0.9 lag to unity

Crest Factor : 3:1

Frequency : 50 Hz, Pure sine wave

Frequency Regulation : +/- 0.1% Wave form : Sine wave

Harmonic Distortion : < 2% THD for linear load

< 4% THD for non-linear load

Overload Rating : 110% for 30 minutes

125% for 10 minutes 150% for 1 minute

Efficiency : > 93% online with linear load

Noise : < 50 dB at 1 meter

Display & interface : Graphical LCD / LED with RS 232 port

11.3 DC Link

DC Bus volts Ripple : Less than 2%

Battery isolation : DCCB

11.4 PROTECTIONS

**Rectifier** : I/P AC Overvoltage / Undervoltage

DC Overvoltage

**Battery Charging Over current** 

O/P Over Load Single Phase Failure Reverse Phase Sequence

**Inverter** : O/P Over voltage / Under voltage

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O/P Overload DC Under voltage Over Temperature

**11.5 AUDIO ALARM** : Rectifier Trip.

Overload.

Mains Fail.

Battery Low Pre-alarm.

System Trip.

**11.6 METERING DIGITAL** : LCD metering to read following

parameters

with users friendly mimic scheme. I/P Voltage / Current / Frequency

Battery voltage

Battery charge / discharge current O/P Voltage / Current / Frequency

**11.7 ENCLOSURE** : IP 43

11.8 ENVIRONMENT

Operating Temperature : 0 to 45 Deg. C. Storage : -10 to 70 Deg. C.

Humidity : upto 95% RH.(non - condensing)

Cooling : Forced Air Cooling.
Altitude : No derating till 1000 m.

**11.9 REFERNCE STANDARDS** : IEC 62040-2, IEC 60950, EN 620401-1, EN

50091-2 (A) and IEC 146 - ( IV ) for testing with ISO 9001:2000 and ISO 14001

certification.

#### 11.10 DIMENSIONS

	Width	Depth	Height	Weight
UPS				
KVA				
Battery				
UPS				
KVA				
Battery				

#### **11.11 CABLES**

Input Cable ; Output cable :

Earth:

#### 11.12 BATTERY BANK

Vender shall supply maintenance free shield battery with rack with back up of 60 Min. for full load. Battery shall be of reputed make (Company with ISO) and shall be guaranteed for 3 Years. **Calculations for battery bank for 60 mins shall be provided.** The battery status indication shall be there on UPS. The recharging time shall be not more than 10 times the discharge time. The battery rack shall have proper cooling (micro processor controlled) arrangements and shall be with castors and leveling feet. The battery shall be stable till 1000 mtr altitude with no condensation from 15-90% Rh. Noise level shall be less than 50 dB.

#### **OFFER SHALL INCLUDE**

- 1 UPS Systems.
- 2 Battery Set with interconnections & Rack.
- 3 Packing, Transportation, forwarding, installation & commissioning of UPS at our site.
- 4 Excise duty, Sales Tax.
- 5 All spares required during warranty period.

#### DOCUMENTS TO BE PROVIDED WITH UPS SYSTEMS

1 Operating instruction manual - 2 Sets 2 Installation Drawings - 2 Sets

#### 3. CABLE LAYING IN TRENCHE / ON TRAY (ITEM NO. 46, 47, 48, 49, 50, 51, 52)

#### (A). MATERIALS:

All cables shall be of approved make and ISI marked. The brick shall be modular well burnt clay bricks of compressive strength not less than 25kg / sq.cm. Only fine shall be used.

#### (B). STORAGE AND HANDLING OF CABLE:

The cable drums shall be stored on, hard and well drained surface, to avoid sinking of drums in the ground causing damage to the cable drums. For long term storage of all types of cable, paved surface is preferred and protection from rain and sun is to be provided.

The drums shall always be stored on their flanges, and not on their flat sides. Both ends of the cable should be properly sealed to prevent ingress/absorption of moisture.

Ventilation should be there between cable drums. Damaged battens of drums etc. should be replaced at the earliest. Handling: when the cable drums have to be moved over short distance, they should be rolled in the direction of the arrow marked on the

### Tender No. DFC\_ADI\_ENG\_ORH\_OCC drum.

For transportation of cable drums over long distance suitable mechanical transport should be used. If manual transportation is compulsion, the drum should be mounted on the cable drum wheels, strong enough to carry the weight of the drum, and pulled by means of ropes.

For loading and un loading from vehicles, suitable capacity crane or a lifting tackle should be used. Small size cable drums as can also be rolled down carefully on a suitable ramp for unloading, provided no damage is likely to be caused to the cable or the drums.

#### (B). ROUTE OF CABLE:

Be for cable laying, the rout of the cable shall be decided by the engineering-in-charge considering the following.

The shortest practicable route shall be preferred, the cable rout shall generally follow fixed developments. Such as roads, foot paths etc. with proper offsets so that future maintenance, identification etc. are rendered easy. Cross country run merely to shorted the route length shall not be adopted.

Cable route shall be planned away from drains and near the property, especially in the case of LV/MV cables. Cable route should be avoided from corrosive soils, ground surrounding sewage effluent etc.

Present and likely future requirement of the other services should be taken in to consideration, while deciding the alignment of the cable.

Whenever cables are laid along roads, the LV/MV cable shall be laid further from the kerb line than HV cables.

Where available space is restricted LV/MV cable shall be laid above HV cable in vertical formation.

Cables of different voltages, and also power and control cable shall be kept in different trenches with adequate separation. Where cables cross one another, the cable of higher voltage shall be laid at a lower level than the cable of lower voltage.

Power and communication cables shall as far as possible cross each other at right angles. The horizontal and vertical clearances between them shall not be less than 60 cm.

Cables under railway tracks, shall be laid in spun reinforced concrete, or cast iron or steel pipes at such depths as may be specified by the Railway/DFCCI authorities, but not less than 1m, measured form the bottom of the sleepers to the top of the pipe.

Inside railway station limits, pipes shall be laid upto the point of the railway boundary or to a point to be decided by the Railway/DFCCI authorities. Outside the railway station limits, pipes shall be laid upto a minimum distance of 3m from the centre of the

nearest track on either side.

Necessary way leave for the cable route shall be obtained from appropriate authorities, such as, Municipal authorities, Department of telecommunication, Gas works, railways, Civil Aviation authorities, Owners of properties (in case of private property) etc. and section 12/51 of the Indian Electricity Act shall be complied with.

#### (C). LAYING OF CABLE:

#### **GENERAL**

Cables with kinks, straightened kinks or any other apparent defects like defective armouring etc. shall not be laid.

Cable shall not be bent sharp to a small radius, while handling or laying. The minimum safe bending radius for PVC/XLPE (MV) cables shall be 12 times the overall diameter of the cable.

If cable is cut, the ends of cable shall be sealed with suitable sealing compound/ tape/ heat shrinkable caps immediately.

The cables shall be tested for continuity and insulation resistance.

The cables shall be laid direct in ground, pipe, closed or open ducts, cables trays or on surface of wall etc. as specified.

#### **UNCOILING OF CABLE BEFORE LAYING**

The cable drum shall be properly mounted on jacks, or on a cable wheel of suitable capacity. The spindle should be horizontal in the bearings to prevent creeping of drum to one side while rotating.

PVC/XLPE cables less than 120 sqmm size may be removed by "flaking" i.e. by making one long loop in the reverse direction.

The cable shall be pulled over on rollers in the trench steadily and uniformly without jerks and strain. The entire cable length shall as far as possible be laid off in one stretch.

For short runs and sizes upto 50 sqmm of MV cables, any other suitable method of direct handling and lying can be adapted without strain or excess bending of the cables.

#### LAYING DIRECT IN GROUND

For laying a single cable the minimum width of the trench shall be 35 cm and the depth shall not be less than 75cm. The bottom of the trench shall be level and smooth.

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Where more than one cable is to be laid in the same trench in horizontal formation, the width of the trench shall be increased such that the inter-axial spacing between the cables shall be at least 20 cm.

In case of vertical formation of cable laying, the depth of the trench shall be increase by 30 cm for each additional vertical tier.

There shall be a clearance of at least 15 cm between axis of the end cables and the sides of the trench

The trenches shall be excavated in reasonably straight lines. While changing direction of trench, suitable curvature shall be adopted.

The changes in gradients or in depth shall be gradual.

While excavating trench, the excavated soil shall be stacked firmly by the side of the trench susch that it may not fall back into the trench.

Adequate precautions should be taken not to damage any existing cable(s), pipes or any other such installations in the route during excavation.

Wherever bricks, tiles or protective covers or bare cables are encountered, futher excavation shall not be carried out without the approval of the Engineer-in-charge.

Existing property, if any, exposed during trenching shall be temporarily supported adequately as directed by the Engineer-in-Charge. The trenching in such cases shall be done in short lengths and necessary pipes shall be laid for passing cables therin and then the trench shall be refilled.

Excavation through lawns shall be done in consultation with the Department concerned.

#### **SAND CUSHIONING**

The trench shall then be provided with a layer of clean dry sand cushion of not less than 8 cm in depth, before laying the cables therin.

Cables laid in trenches in a single their formation shall have a covering of dry sand of not less than 17 cm above the base cushion of sand before the protective cover is laid.

In the case of vertical multi-tier formation, after the first cable has been laid, a sand cushion of 30 cm shall be provided over the base cushion before the second tier is laid. If additional tiers are formed, each of the subsequent tiers also shall have a sand

cushion of 30 cm as started above. Cables in the top most tiers shall have final sand covering not less than 17 cm before the protective cover is laid.

#### LOOPS

At the time of original installation, approximately 3m of surplus cable shall be left on each terminal end of the cable and on each side of the underground joints. The surplus cable shall be left in the form of a loop. Where there are long runs of cables such loose cable may be left at suitable intervals as specified by the Engineer-in-Charge.

Where it may not be practically possible to provide separation between cables when forming loops of a number of cables, measurement shall be made only to the extent of actual volume of excavation, sand filling etc. and paid for accordingly.

#### **PROTECTIVE COVERING:**

Unless otherwise specified, the cables shall be protected by brick of specified size or 20cmx10cmx10cm or locally available size, placed on top of the sand. The bricks shall be placed breadth-wise for the full length of the cable. Where more than one cable is to be laid in the same trench, one raw of bricks shall used for each cable.

Where bricks are not easily available, or are comparatively costly, there is no objection to use locally available material such as stone tiles or slates or stone/ cement concrete slabs. Where such an alternative is acceptable, the same shall be clearly specified in the tender specifications.

#### **BACK FILLING:**

The cable cores shall be tested for continuity, absence of cross phasing, and insulation resistance from conductors to earth / armour and between conductors.

Insulation resistance shall be tested with a 500V megger for cables of 1.1 KV grade, or with a 2500/ 5000V megger of cables of higher voltage. Unless the insulation resistance values are satisfactory, the trench shall not be covered or filled.

The trenches shall be then back-filed with excavated earth, free from stones or other sharp edged debris and shall be rammed and watered, if necessary in successive layer not exceeding 30cm depth.

A crown of earth not less than 50 mm and not exceeding 100m in the centre and tapering towards the sides of the trench shall be left to allow for subsidence unless otherwise specified. The crown of the each however, should not exceed 10 cms so as not to be a hazard to vehicular traffic.

The temporary re-statement of roadways should be inspected at regular intervals, particularly during wet weather and settlement should be made good by further filling as may be required.

Where it is necessary to cut road berms or displace kerb stones, the same shall be repaired and made good, except for turning/ asphalting, to the satisfaction of the Engineer-in-Charge, and all the surplus earth or rock shall be removed to places as specified.

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#### LAYING OF CABLE IN PIPE:

In locations such as road crossing, entry in to building, paved areas etc., cables shall be laid in pipes or closed ducts. Metallic pipe shall be used as protection pipe for cables fixed on poles of overhead lines.

GI, CL or spun reinforced concrete pipes shall be used for cables in ground, however only GI pipe shall be used as protection pipe on poles.

The size of the pipe shall not be less than 50mm dia for a single cable and not less than 150mm for more than one cable.

Where steel pipes are used for protection of single core cables feeding AC load, both cables in the case of single phase system and all cables in the case of poly phase system should be drawn in single pipe of sufficient dia.

Pipes for MV and HV cables shall be independent.

In the case of new construction, pipes for present and anticipated future requirements shall be laid alongwith the civil works.

Pipes shall be continuous and clear of debris or concrete. Sharp edges if any, at ends shall be smoothened to prevent damage to cable sheathing.

The top surface of pipes shall be at a minimum depth of 1m from the pavement level when laid under roads, pavement etc.

The pipes shall be laid preferable skew to reduce the angle of bend as the cable enters and leaves the crossing.

When pipes are laid by cutting and existing road, after laying the pipes the soil filled up is rammed well in layers with watering to ensure proper compaction. A crown of earth not exceeding 10cm should be left at the top.

The temporary re-instatements of roadways should be inspected at regular at regular intervals upto 10days and any settlement should be made good by further filling as may be required.

After the subsidence has ceased, the top of the filled up trenches in roadways or other paved areas shall be restored. To the same density and material as the surrounding area in accordance with the relevant CPWD Building specifications and to the satisfaction of the Engineer-in-Charge. Suitable size manholes may be provided to facilitate feeding/ drawing in of cables with sufficient working space. Manhole shall be covered by suitable sizes and specified type of manhole.

Pipes for cables entries to the building shall slope downwards from the building. The pipes at the building end shall be suitably sealed to avoid entry of water, after the cables are laid.

Cable-grip / draw-wires, winches etc. may be employed for drawing cables through pipes/closed ducts.

#### **LAYING IN OPEN DUCTS:**

Open ducts with suitable removable covers (RCC slabs or chequered plates) are generally provided in substations, switch rooms, plant rooms, workshops etc. for taking the cables. The cable ducts should be of suitable dimensions for the number of cables involved.

Laying of cables with different voltage ratings in the same duct shall be avoided. Where it is compulsion to take HV & MV cables in same trench, they shall be laid with a barrier between them or alternatively, one of the two (HV or MV) cables may be taken through pipe (s).

Joints of any type shall not be permitted inside the ducts.

The cables shall be laid in the duct such that unnecessary crossing of cables is avoided. Where specified, cables may be fixed with clamps on the walls of the duct or taken in hooks / brackets / troughs in ducts.

#### CABLE TRAYS AND ROUT MARKER:

Cable trays shall be fabricated from Hot Dip GI and channels of 14 gauge and shall be powder coated with 7 tank process if specified. The design shall be ladder type with optional cover. Shall be fixed or suspended from the ceiling with the help of suspenders which shall have adequate diameter to sustain the weight of the cables and channels. Also if necessary anchor fasteners shall be used for grouting purpose

#### LAYING ON SURFACE / CABLE TRAYS:

This method may be adopted in places like switch rooms. Workshops tunnels, rising (distribution) mains in building etc. This may also be necessitated in the works of additions and / or alterations to the existing installation, where other methods of laying may not be feasible.

Cables may be laid in surface by any of the following methods as specified:

- (a) Directly clamped by saddles or clamps,
- (b) Supported on cradles,
- (c) Laid on troughs / trays, duly clamps.

The size and interval of metal saddle / clamp used for fixing the cables shall be as per table given below.

SR NO	SIZE OF CABLE	CLAMPING BY	FIXING INTERVALS
1	Upto 25 sq mm	Saddle 1mm thick	45 cm
2	35 sqmm to 120 sqmm	Clamp 3mm thick and 25mm wide	60 cm
3	150 sqmm and above	Clamp 3mm thick and 40mm wide	60 cm

Saddles shall be secured with screws to suitable approved plugs. Clamps shall be secured with nutes on to the bolts. Grouted in the supporting structure in an approved manner.

In the case of single core cable, the clamps shall be of non-magnetic material.

Unarmoured cables shall be clamped with suitable non-corrosive packing to prevent damage of the cable sheath.

Cable shall be fixed neatly without undue sag or kinks.

The arrangement of laying the cables in cradles is permitted only in the case of cables of 1.1KV grade of size exceeding 120 sqmm. In such cases, the cables may be suspended on MS flat cradles of size 50mm x 5mm which in turn shall be fixed on the wall by bolts grouted into the wall in an approved manner at a spacing of not less than 60 cm.

All MS components used in fixing the cables shall be either galvanized or given a coat of red oxide primer and finished with 2 coats of approved paint.

#### (C) JOINTING OF CABLES:

#### SAFETY PRECAUTION BEFORE JOINTING

A caution board displaying massage "CAUTION CABLE JOINTING WORK IN PROGRESS" shall be displayed to warn the public and traffic where necessary.

Before jointing is commenced, all safety precautions like isolation, discharging, earthing, display of caution board on the controlling switchgear etc. shall be taken to ensure that the cable would not be inadvertently charged form live supply.

Metallic armour and external metallic bonding shall be connected to earth.

Where "permit to work" system is in vogue, safety procedures prescribed shall be complied with

#### LOCATION:

Before laying a cable, most suitable locations for proposed cable joints, if any shall be decide, the water logged locations, carriage ways, pavement. Proximity to telephone cables, gas or water mains, inaccessible places, ducts, pipes, racks etc. shall be avoided for location the cable joints.

Joints shall be staggered by 2m to 3m when joints are to be done for two or more cables laid together in the same trench.

Joints pits shall be of sufficient dimension as to allow easy and comfortable working. The sides of the pit shall be well protected from loose earth falling into it. It shall also be covered by a tarpaulin/ PVC sheet to prevent dust and other foreign matter being blown on the exposed joint and jointing materials.

Sufficient ventilation shall be provided during jointing operation.

#### **JOINTING MATERIALS AND PROCEDURE:**

Only approved make and specified type of cable jointing kit shall be used.

The clamps for the armour shall be clean and tight.

Jointing as well as storing shall be done strictly as per the instructions of the manufacturer of jointing kit.

About 3m long surplus cable shall be left on each side of joints.

Jointing work shall be carried out by a licensed / experienced cable jointer. The sequence of cores should be so arranged as to avoid crossing of cores.

Before jointing cable cores shall be tested for continuity, absence of cross phasing, insulating resistance from conductors to earth / armour and between conductors.

Insulation resistance shall be tested with a 500V megger for cables of 1.1 KV grade, or with a 2500 / 5000V megger of cables of higher voltage. Unless the insulation resistance values are satisfactory, jointing shall not be done.

If oxide film is formed on aluminium conductor, it should be removed by using appropriate type of flux.

#### **TESTING AFTER LAYING:**

After laying and jointing, the cable shall be subjected to a 15 minutes pressure test with 2 KV AC or 3 KV DC pressure. DC pressure testing may normally be preferred to SC pressure testing.

Alternatively pressure test for one minute with 1000V megger for cables of 1.1 KV grade and with 2500 / 5000V megger for cables of higher voltages shall be sufficient.

#### (D). ROUTE MARKERS:

Route markers shall be provided along the runs of cables at locations approved by the Engineer-in-Charge and generally at intervals not exceeding 100m.

Markers shall also be provided to identify change in the direction of the cable route and at locations of underground joints.

Route markers shall be made out of  $100 \, \text{mm} \times 5 \, \text{mm}$  GI plate welded / bolted on  $35 \, \text{mm} \times 35 \, \text{mm} \times 6 \, \text{mm}$  angle iron,  $60 \, \text{cm}$  long. Such plate markers shall be mounted parallel to and at about  $0.5 \, \text{m}$  away from the edge of the trench.

C.C route marker made of cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate of 20mm in size) shall be laid flat and centered over the cable. The concrete markers, unless otherwise instructed by the Engineer-in-Charge, shall project over the surrounding surface so as to make the cable route easily identifiable.

The works PWD-MV/HV CABLE as the case may, shall be inscribed on the marker.

#### (E). MEASUREMENT:

Cable laid direct in ground, duct and surface / cable tray shall be measured in running metre straight along trench (excluding ramble length) in running metre correct to 1cm.

Cable laid pipes / closed duct shall be measured in running metre correct to 1 cm taking actual length of the pipe / duct for each run of the cable (excluding ramble length), irrespective of the length of cable drawn through it.

Cable length used in connections shall be measured as item of cable layed in open duct. Jointing and route marker shall be counted in number.

#### (F). RATE:

Cost of all material, labour and machinery used in execution of work of shall be in the cost of item.

### 4. LT CABLES AND CABLE TERMINATION (ITEM NO. 53 TO 61)

#### A. SPECIFICATIONS

#### **GENERAL:**

The medium voltage cables shall be supplied, laid, connected, tested and commissioned in accordance with the drawings, specifications, relevant Indian Standards specifications, manufacturer's instructions. The cables shall be delivered at site in the original drums with manufacturer's name, size and type clearly written on the drums.

All cables shall be adequately protected against any risk of mechanical damage to which they may be liable in normal conditions of handling during transportation, loading, unloading etc.

The cable shall be supplied in single length i.e. without any intermediate joint or cut unless specifically approved by the DFCCI.

The cable ends shall be suitably sealed against entry of moisture, dust, water etc. with cable compound as per standard practise.

Materials: All cables shall be of approved make and ISI marked only. The brick shall be modular well burnt clay brick of compressive strength not less than 25kg /sq.cm. Only fine sand shall be used.

Bending of Cable: Cable shall not be bend sharp to a small radius either while handling or in laying. The minimum safe banding radius for PILCA/XLPE,33KV cable shall be 20 times the overall diameter of the cable.

#### **CONDUCTOR:**

Uncoated, annealed copper / aluminium, of high conductivity, upto 4 mm<sup>2</sup> size the conductor shall be solid and above 4 mm<sup>2</sup> the conductors shall be concentrically stranded as per IEC : 228.

#### **INSULATION:**

Cross link polyethylene (XLPE) extruded insulation rated at 70°c.

#### **CORE INDENTIFICATION:**

Two core : Red and Black

Three core : Red, Yellow and Blue

Four core : Red, Yellow, Blue and Black Single core : Green, Yellow for earthing.

Black shall always be used for neutral.

#### ASSEMBLY:

Two, three or four insulated conductors shall be laid up, filled with non-hygroscopic material and covered with an additional layer of thermoplastic material.

#### ARMOUR:

Galvanised steel flat strip / round strips applied helically in single layers complete with covering the assembly of cores.

For cable size upto 10 sq mm : Armour of 1.4 mm dia G.I. round wire

For cable size above 10 sq mm : Armour of 4 mm wide 0.8 mm thick GI strip

SHEATH:

ST -2 PVC along with polypropylene fillers to be provided.

Inner sheath shall be extruded type and shall be compatible with the insulation provided for the cables.

Outer sheath shall be of an extruded type layer of suitable PVC material compatible with the specified ambient temp. of 50°c and operating temperature of cables. The sheath shall be resistant to water, ultra violet radiation, fungus, termite and rodent attacks. The colour of outer sheath shall be black.

Sequential length marking along with size and other standard parameters shall be required at every 1.0 mtr on the outer sheath.

#### **TESTING:**

Finished cable tests at manufacturers works: The finished cables shall be tested at manufacturer's works for all the routine tests for all the length and size of cables to be delivered at site and the certificate for the same shall be furnished to DFCCI. If required the cables shall be tested in presence of the DFCCI's representative.

Voltage test: Each core of cable shall be tested at room temperature at 3 KV A.C. R.M.S. for duration of 5 minutes.

Conductor resistance test: The D.C. resistance of each conductor shall be measured at room temperature and the results shall be corrected to  $20^{\circ}$ c to check the compliance with the values specified in the Is 8130 - 1976.

Cable tests before and after laying cables at site:

Insulation resistance test between phases, phase to neutral and phase to earth.

Continuity test of all the phases, neutral and earth continuity conductor.

Earth resistance test of all the phases and neutral.

All the tests shall be carried out in accordance with the relevant IS code of practise and Indian Electricity Rules. The vendor shall provide necessary instruments, equipments and labour for conducting the above tests and shall bear all the expenses in connection with such tests. All tests shall be carried out in the presence of DFCCI and the results shall be prescribed in forms and submitted.

All specification for HV cable laying shall be same as that of MV cable laying.

Testing of 11KV HT cable:

Insulation resistance shall be tested with 2500/5000meger, Pressure testing shall be done for 15minutes with 20KV Ac pressure between conductors and with 11.5KV AC pressure between conductor and earth. If facility for pressure testing is not available then testing for one minute with 2500/5000V megger shall be sufficient.

#### **CABLE MARKING:**

The outer sheath	shall be legibly	embossed at every	v meter with foll	owina leaend:

ELECTRIC (	CABLE : 1100 V	, SIZE :	СХ	MM <sup>2</sup> wit	th Manufacturers	name,	vear	of
------------	----------------	----------	----	---------------------	------------------	-------	------	----

manufacturing and ISI symbol.

#### **SEALING DRUMMING AND PACKING:**

After tests at manufacturer's woks, both ends of the cables shall be sealed to prevent the ingress of moisture during transportation and storage.

Cable shall be supplied in length of 500 mtrs or as required in non-returnable drums of sufficiently sturdy construction.

Cables of more than 250 meters shall also be supplied in non-returnable drums.

The spindle hole shall be minimum 110 mm in diameter.

Each drum shall bear on the outside flange, legibly and indelibly in the Englist literature, a distinguishing number, the manufacturer's name and particulars of the cable i.e. voltage grade, length, conductor size, cable type, insulation type, and gross weight shall also be clearly visible. The direction for rolling shall be indicated by an arrow. The drum flange shall also be marked with manufacturer's name and year of manufacturing etc.

#### **CABLE TERMINATION:**

Cable terminations shall be made with aluminium crimped type solder less lugs for all aluminium cables and stud type terminals. For copper cables copper crimped solder less lugs shall be used.

Crimping shall be done with the help of hydraulically operated crimping tool.

For joints where by cable is with aluminium conductor and busbars are aluminium, bimetallic lugs shall be used with compound. CUPAL type of washers shall be used.

Crimping tool shall be used for crimping any size of cable.

#### CABLE GLANDS:

Cable glands shall be of brass single compression type. Generally single compression type cable glands shall be used for indoor protected locations and double compression type shall be used for outdoor locations.

#### **FERRULES:**

Ferrules shall be of self-sticking type and shall be employed to designate the various cores of the control cable by the terminal numbers to which the cores are connected, for ease in identification and maintenance.

#### **CABLE JOINTS:**

Kit type joint shall be done and filled with insulating compound. The joint should be for 1.1 KV grade insulation.

#### B. WORKMANSHIP

Cables shall be laid in the routes marked in the drawings. Where the route is not marked, the Contractor shall mark it out on the drawings and also on the site and obtain the approval of the DFCCI AND/OR ITS ARCHITECT before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown in the schedule of work shall be regarded as a guide only.

Cables shall be laid on walls, cable trays, inside shafts or trenches. Saddling or support for the cable shall not be more than 500 mm apart. Plastic identification tags shall be provided at every 30 m.

Cables shall be bent to a radius not less than 12 (twelve) times the overall diameter of the cable or in accordance with the manufacturer's recommendations whichever is higher.

In the case of cables buried directly in ground, the cable route shall be parallel or perpendicular to roadways, walls etc unless marked on drawing by architect / consultant. Cables shall be laid on an excavated, graded trench, over a sand or soft earth cushion to provide protection against abrasion. Cables shall be protected with brick or cement tiles on all the three sides as shown on drawings. Width of excavated trenches shall be as per drawings. Back fill over buried cables shall be with a minimum earth cover of 750 mm to 1000 mm. The cables shall be provided with cables markers at every 10 meters and at all loop points.

All cables shall be full runs from panel to panel without any joints or splices. Cables shall be identified at end termination indicating the feeder number and the Panel/Distribution board from where it is being laid. Cable termination for conductors up to 4 sq.mm. may be insertion type and all higher sizes shall have compression type lugs. Cable termination shall have necessary brass glands. The end termination shall be insulated with a minimum of six half-lapped layers of PVC tape. Cable armouring shall be earthed at both ends.

In case of cables entering the buildings. It would be done duly only through pipes. The pipes shall be laid in slant position, so that no rainwater may enter the building. After the cables are tested the pipes shall be sealed with M. seal & then tarpaulin, shall be wrapped around the cable for making the entry watertight.

Testing: MV cables shall be tested upon installation with a 500 V Meggar and the following readings established:

Continuity on all phases.

Insulation Resistance.

between conductors.

all conductors and ground.

All test readings shall be recorded and shall form part of the completion documentation.

Cable joints shall be done as per regular practice and check shall be carried out for loose connections and leakages. Insulation cutting shall be done properly taking care that no area of the conductor remains exposed. Crimping shall be done with the help of hydraulic tool. Proper insulation tape shall be applied at the cable and lug joint.

Format for cable testing certificate:

a.	Drum no. from which cable is	taken :
b.	Cable from to	
C.	Length of run of this cable	mtr
d.	Insulation resistance test	
	between core 1 to earth	mega-ohm
	between core 2 to earth	mega-ohm
	between core 3 to earth	mega-ohm
	between core 1 to core 2	mega-ohm

between individual cores

between core 2 to core 3	mega-ohm	
between core 1 to core 3	mega-ohm	
duration used :		
High voltage test :	Voltage	Duration
between core and earth		

#### C. MODE OF MEASUREMENT

The cables shall be measured in RMT and terminations on unit basis.

# 5. LIGHT FIXTURES, FAN, EXHAUST FAN AND WATER HEATER

### **ITEM NO. 62**

e.

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of co-extruded polycarbonate channel with diffuser part in needed opal finish with company mark/name 160V to 270V, Power Factor more than 0.9, THD < 15%, CCT 3000 K to 6500K, Luminaire efficacy > 100 lumens/watt ,LED LED driver efficiency > 85 (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Tube Light with integral driver (i) 5-10 Watts, Surge-2 KV, IP-20, conventional 1 to 2 feet – Wipro make cat no. D531065 or equivalent

#### **ITEM NO. 63**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of co-extruded polycarbonate channel with diffuser part in needed opal finish with company mark/name 160V to 270V, Power Factor more than 0.9, THD < 15%, CCT 3000 K to 6500K, Luminaire efficacy > 100 lumens/watt ,LED LED driver efficiency > 85 (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Tube Light with integral driver (ii) 18-20 Watts, Surge - 2KV,IP-20, conventional 4 feet – Wipro make cat no. D533040 or equivalent

#### ITEM NO. 64

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All

light fixtures have LM-79 & LM-80 certification.

LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 160V to 270V,Power Factor more than 0.9, THD < 15 %, CCT 3000 K to 6500K, Luminaire efficacy > 100 lumens/watt , LED driver efficiency > 85 % fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20 (ii) 10-15 watts, Surge-2 KV – Wipro make cat no. D731040 or equivalent

#### ITEM NO. 65

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 160V to 270V,Power Factor more than 0.9, THD < 15 %, CCT 3000 K to 6500K, Luminaire efficacy > 100 lumens/watt , LED driver efficiency > 85 % fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer incharge may select any wattage capacity between the ranges shown.) (A) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20 (iii) 15-20 watts, Surge-2 KV – Wipro make cat no. D731540 or equivalent

#### ITEM NO. 66

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

Modular Type Accessories mounted with PVC / metallic / Wooden box, single mounting base frame covered with textured / metallic/white front plate , modules erected with necessary connections as per site situation directed by Engineer In charge.(21) Foot Light as per colour requirement with concealed box, modular accessories, acrylic glass cover with suitable LED watt with all accessories as per following module (a) equal of two / four modules – Wipro make cat no. DW 10327 or as per modular switches catalogue.

#### **ITEM NO. 67**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

PVC body surface or pendent mounting LED Bulk type 9 watt Lighting Fitting with electronic driver. And lumen output from luminaire 720lm, input voltage range 90-300VAC

, 50Hz cool white(3000 to 6500k), inbuilt driver, -20degC to +60degC working temperature, AL frame with Beam Angle 120deg - Wipro make cat no. DA11065 or equivalent

#### ITEM NO. 68

Ceiling fan - suitable sweep, BEE 5 Star rated, Ceiling fan with Brush Less Direct Current (BLDC) permanent ferrite magnet Motor, class of insulation: B, Rust free 3 nos.Aluminium blades, 2 nos. canopies, shackle kit with earthing provision, copper winding, Power factor not < 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM,230v (tolerance as per IS: 374-2019), THD < 10%, with remote unit for Speed Control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75 degree C (Max.), suitable for 140 to 285 Voltage and rectifier circuit with surge, over current and overload protection, 50 Hz, Single phase AC Supply, earthing etc. Complete as required.[ Make shall be approved by Engineer in Charge] (B) 1200 mm Sweep (48") – Crompton make Energion Cromair BLDC fan or equivalent

#### **ITEM NO. 69 & 70**

Low noise decorative exhaust fan having square frame ABS body with inbuilt lowers & square frame. 250mm with 1310-1350 RPM, power consumption – 27W and air quantity - 800 CMM – Crompton make cat no. BRISKAIRNEO10WHT or equivalent

Window frame suitable for erection of Exhaust fan complete covering the remaining portion of window with 15 mm. thick plywood and colour washing to match the colour of the wall.

#### **ITEM NO. 71**

Instantaneous type water heater with 3ltr.capacity rust free container housed in ABS plastic body insulated with glass wool / puff insulation and 3 Kw heating elements,adjustable thermostat 300 C to 850 C with set to operate at 850 C (+ /-60 C) auto reset indication lamps, thermal cut-out, safety valve fusible plug etc. Premium Category (Racold,A.o.Smith,Venus)

PUF Insulation: The high density and thick PUF in your water heater ensures retention of internal heat and temperature and resulting in better energy efficiency and reduced electricity bills

Faster Heating: The high power heating element ensures you get hot water in no time

High Pressure Resistance: High pressure withstanding capacity makes it suitable for high rise buildings and high pressure pump applications

Safety Plus: Pronto neo provides three levels of safety against high temperature and pressure, provided by a high tech adjustable thermostat, cutout and multifunction safety valve conforming to international standards

Auto Cut off: Stem-type thermostat and cutout ensures automatic temperature control and extra safety for your water heater

No Back Flow of Water: The anti-syphoning system prevents the back flow of water from the container, thus avoiding dry heating

Warranty details - Capacity: 3 litre; Mount Type: Vertical; Warranty: 2 years on product, 2

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years on heating element and 5 years on tank; Power: 3000 Watts

#### **ITEM NO. 72**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

Wall mounted bracket light (up & down lighter) - Outdoor type. Wipro DW11227 or equivalent

Material – poly carbonate
Power consumption – 2 x 6W
Application – Outdoor (IP65)
Color of light – 2700K
Surge protection – 2.5KV

### **ITEM NO. 73**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

7W Spike light / Planter Light - Outdoor type - Wipro D930727 or equivalent Material – metal / poly carbonate
Power consumption –7W
Application – Outdoor (IP65)
Color of light – 2700K
Beam Angle – 30 degree
Lumens – 480Im
Surge protection – 2.5KV

#### **ITEM NO. 74**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All light fixtures have LM-79 & LM-80 certification.

14W / mtr Profile light with Aluminium section and diffuser – LED Strip Wipro make cat no. DF32827 or equivalent

Power consumption –14W / mtr
Application – Outdoor (IP65)
Color of light – 2700K
Lumens – 90-110Im per LED
Operating voltage – 12V
Section for mounting of LED strip – 22 x 8 mm
Diffuser for aluminium section – 60% milky white color.

#### **ITEM NO. 75**

Light fixtures as mentioned in the BOQ with the catalogue no and makes shall be installed. The fixtures shall be complete with driver and shall be prewired by the manufacturer. All

light fixtures have LM-79 & LM-80 certification.

PROFILE DRIVER OF 6A DC SUPPLY (12V) – MEANWHALE / WIPRO MAKE CAT NO. H45060 or equivalent

Power consumption –6A Application – Outdoor (IP65) Operating voltage – 230V - 12V

# B. WORKMANSHIP FOR ALL ABOVE LIGHT FICTURES, FANS AND EXHAUST FAN

The fixture shall be installed on wall / ceiling as directed and as per manufacturer's instruction, with necessary accessories for surface, concealed, suspended from ceiling, bracket mounting etc. The job also includes connection of fixture with respective outlet point with heat resistant wires through heat resistance sleeve and PVC connector. Proper earthing shall be provided to the fixtures.

#### C. INSTALLATION WITH ACCESSORIES

Installation, testing & commissioning of standard light fittings and lighting accessories including lamp. The scope shall include, providing of all hardware such as nuts, anchor fasteners, bolts, screws, cleats, clamps, PVC insulated wires / cables from Junction box to lighting fixtures, ball and socket 'arrangement with J.B., suspension conduit pipe for drop for fluorescent fitting. The cost for supports (wire ropes etc) shall be included in the cost.

#### D. MODE OF MEASUREMENT

The unit rate shall be considered for fitting one fixture. The rate shall include following All fixing accessories, mounting bracket, ballast condensers and control gear wherever applicable.

Supplying and fixing Ball and socket joints wherever required. Earthing of fittings.

#### E. WARRANTY

All Light fixtures warranty – 2 year from installation.

# <u>DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR</u> SCHEDULE "E"

Note :- Guarantee/Warranty certificate if applicable shall be handover to DFCCIL after completion and testing of work/item.

# AIR CONDITIONING WORK (ITEM NO. 1, 2, 3, 4)

ITEM NO. 1 Inverter based approved make split air-conditioning unit consisting of condensing unit with variable speed fan motor, inverter type hermetically sealed rotary compressor with accessories etc. duly connected separately erected evaporating unit and blower motor with its accessories by means of extra supplied proper insulated copper tubing, drain PVC pipes suitable for (cost includes Eco Friendly green gas charging and 15A plug top & Remote Control & MS Stand) with necessary core cutting. (2)For 5 Star Rating of current year - (B) for 1.5 ton capacity- Premium Cat. (FOR DINNING) - Make - BLUE STAR / O-GENERAL / HITACHI

**ITEM NO. 2** Inverter based approved make split air-conditioning unit consisting of condensing unit with variable speed fan motor, inverter type hermetically sealed rotary compressor with accessories etc. duly connected separately erected evaporating unit and blower motor with its accessories by means of extra supplied proper insulated copper tubing, drain PVC pipes suitable for (cost includes Eco Friendly green gas charging and 15A plug top & Remote Control & MS Stand) with necessary core cutting. (2)For 5 Star Rating of current year - (C) for 1.7 to 2 ton capacity-Premium Cat. (FOR ROOMS, CONFERENCE ROOM, SUITEROOMS, RECEPTION & WAITING) Make - BLUE STAR / O-GENERAL / HITACHI

**ITEM NO. 3** MS standard type stand mounting for outdoor unit of Split A.C. upto 4 TR capacity erected with necessary hardware materials as directed.

**ITEM NO.4** insulated pair of soft copper tubing including power and control cable, necessary PVC drain pipes for Split AC machine up to 4 TR capacity

The contractor shall have to supply, installation, testing & commissioning of new 2 Ton 5 star inverter split type Air Conditioner units complete with installation of indoor and outdoor unit. The AC units shall be supplied with manufacturer's test certificate as per the parameter given in IS 1391 part II/1992.).

2 Ton inverter type split AC conforming to IS 1391 part II/1992.).		
Star Rating	5 (As per BEE's latest 5 star specifications)	
ISEER	Minimum 4.7	
Supply	230V +/- 10% 50 HZ, single-phase AC supply	
Connecting pipe	Cu-Cu	
Condenser coil Copper		
Refrigerant Gas Eco friendly		

Guarantee for compressor of split AC unit should be for a period of 10 years and for PCB of split AC unit should be for a period of 5 years from the date of supply.

# **LIFT WORK (ITEM NO. 5)**

- (a) General Features & Special Features of the all lift items shall be taken as below: (b) for Handicap Lifts, Minimum 10 Passengers Lift Capacity shall be considered. Same is to be informed to architect /civil authority to keep necessary size of lift well. (A) GENERAL DESCRIPTION OF LIFTS.
- [1] GEAR LESS LIFT DRIVE comprising of High Starting torque Lift 3 phase 440 V A. C. Permanent Magnet Synchronous motor of proper rating with high efficiency shall be used.
- [2] Micro processor based / PLC, ACVVVF, vector control drive with encoder feedback closed loop system shall be used for lift car and door operation which shall be full collective selective operation hall call demand response, UP/DOWN hall stops, Main, Up/ Down Contactor with overload and phase reversal relay and safety controls.
- [3] Car with M S platform with bracings of adequate size and to sustain the impact load cabin + passenger with safety factor of fire for steel and side panels of Stainless steel of sheet of grade 304 duty. Car ceiling will be S.S. finishes with aesthetic appearance with LED ceiling lights. Car flooring shall be of anti skid PVC with choice of colour of engineer in charge. Car doors shall be of stainless steel grade 304, hairline finish with centre opening / telescopic automatic doors. Car panel will also be S.S. 304 finished with emergency stop device, mechanical door safety device, facility of auto/ attended mode. All car panel buttons and all floor switches must be with brail language as per lift act.
- [4] All landing doors must be fire rated for 2 hour shall be fully automatic centre opening/ telescopic opening made of hairline finish steel grade of 304 with key holes and infrared curtains with Unlocking facility from outside
- [5] Appropriate battery operated emergency light in the car along with alarm switch shall be provided. Also, Emergency Light & Fan should start immediately without any Time Delay as soon as power fails.
- [6] Digital scrolling indicator system for up-down arrow along with floor position indicator shall be provided inside the car and at all floors.
- [7] Full height infra red curtain with multiple cross / crossing light beams shall be provided.
- [8] Automatic Rescue Device (ARD) shall be provided accordingly of passenger capacity with Manual Rescue Operation (Manual Cranking Facility).
- [9] Audio visual indication in the lift car showing over loading shall be provided such that doors kept open till excess load is removed.

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- [10] Spring buffers/PU Buffers shall be provided.
- [11] Car fan as per passenger capacity with automatic sleep timer shall be provided.
- [12] Voice annunciator with suitable music shall be provided in lift car.
- [13] Self diagnostics system for operational and safety parameters shall be provided in control panel.
- [14] Mechanical over speed governor with governor calibration as per actual site parameters and submission of calibration certificate submission, door key holes in the floor doors, fireman switch shall be provided.
- [15] Lift machine hoisting arrangement in the lift machine room and monkey ladder for lift pit should be provided by the lift agency, along with the other steel structure works, foundations for the machine etc...
- [16] In the hoist way fascia plate shall be provided without any extra cost, where ever required as / if directed by engineer in charge.
- [17] Permanent wiring with necessary safety devices like RCCB in all circuit, Over Voltage under Voltage protection and THD eliminator in circuit for lift machine room and lift well with proper numbers of light points, with fixtures, exhaust fan and plug points shall be provided by the agency. Only 3 phase Power Supply shall be made available by department in lift machine room. Necessary Earthing as per Lift Act/Rules shall be arranged by Lift Agency.
- [18] Any civil/ electrical works for additional and alteration in lift shaft and machine room related to erection of lift shall be made by lift agency without any extra cost. (Granite/marble fixing around all landing door openings are not in lift agency's scope.)
- [19] Agency has to provide all working drawings and documents and liaison services for obtaining all necessary permission from lift inspector and other authorities.
- [20] Acrylic transparent licence/display A4 size holder in lift car
- [20A] As per statutory requirement of Govt. Of Gujarat lift & escalator act 2000, lift agency has to provide
  - 1. Car top safety barricade
  - 2. Push & talk communication system.
  - 3. Fireman's switch operation at Ground Floor.
  - 4. carrying out third party lift inspection during/after lift erection and provide report by third party authorized by concern licensing authority.
  - 5. Agency has to provide third party insurance upto completion of free maintenance period and submit the document for the same.
- [21] Car Panel Operating Buttons with floor position indicator/buttons must be of Auto Glow type clearly visible when view from inside cabin.

- [22] For Physically Handicapped person Full Length Handrails of hairline finish steel grade of 304 should be provided at appropriate height on the Rear & Side Wall Panels in Lift Car.
- (B) SPECIAL FEATURES DESCRIPTION OF LIFTS for PREMIUM category.
  - Advanced control system dual 64 bit embedded microprocessor with CANBUS Serial Communication mode including Regenerative power efficient operation, on site programming facility, Anti nuisance, Pte-opening, BMS/RMS with necessary online real time monitoring system having necessary connectivity for remote monitoring & other suitable supporting hardware & software devices to fulfil the purpose.
  - 2. Floor Indication LCD Display with call registration & brail mark with arrival gong and hall lantern & TFT Screen in the car with MP3 Voice Announcer.
  - 3. CAR Panel should be Scratch resistive SS Moon-rock finish / Hair Line / Honeycomb for car and all Doors, All landing doors must have fire rating up to 2 hours and car door must have multi-level crisscross beam door protection. 4. To & fro communication system & wiring (i.e. car, control room & guard room) and Each elevator are equipped with remote monitoring system. Agency has to provide mobile app and user id and password for monitoring

Supplying, Erecting, Testing & Commissioning the passenger / stretcher lift having following main features: 8 / 10 Passengers, Ground plus 3 upper floor with Rated Speed of 1.0 m/sec.,(C) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat. - MAKE - SCHINDLER / OTIS / OMEGA

The scope of work is to cover design, manufacture, supply at site, installation, erection, testing, commissioning, and handing over in satisfactory condition passenger lifts as per norms of state Lift Licensing Authority and maintenance of Lifts during the warranty period as per the tender conditions.

Contractor shall have to obtain the approval / license from the state govt. for operating the lift at his own cost.

The Contractor shall be fully responsible for obtaining relevant safety certificate or license or any other authorization required from statutory authorities as a prerequisite for taking up the work of commissioning and regular operation of Machine-room less and Gear-less Elevators. The firm shall also obtain the relevant safety certificate from statutory authority in respect of individual elevators. Fee, if any, for obtaining such license/ certificate shall be borne by the contractor. The aforesaid provision shall be applicable to contractual warranty period and (if applicable) AMC period also.

The Contractor shall submit to the railway, relevant safety and clearance certificates for each equipment, as obtained from the statutory authorities.

The Contractor shall be responsible to supply and install any signage/ graphics required for fulfillment of relevant statutory authority's norms, whether or not specifically mentioned in the specification.

Design, Manufacture, supply at site, installation, testing and commissioning of Machine Room less and gear less passenger lift of 8/10 person capacity, minimum speed 1.00 MPS, G+3 complete in all respect with complete accessories comprising of CAR, CAR door, Landing Door, Machine, Motor, Control Equipment Panel, Safety device, Suspension rope, counter weights, guide rails, buffers. wirings/arrangements beyond the main switch near the Lifts, necessary earthing arrangements and other equipments and accessories complete for satisfactory and safe operation of lift generally confirming to the CPWD General Specifications for Electrical Works (Part-III Lifts and Escalators) - 2003 with all latest amendments and as per norms of state government Lift Licensing Authority duly processing for obtaining the approval/license from the State Government Lift Licensing Authority for operating the lifts and maintenance of Lifts in warranty/Guarantee period at DFCCIL rest house area. The salient points pertaining to safety shall also be complied by the Supplier/Contractor.

However, if any deviations are necessary due to site conditions, it should be with the approval of Dy.CPM/ELECT Ahmedabad. If prospective bidder wants a copy of this specification, same can be obtained from this office or CPWD.

Work shall be carried out in co-operation/consultation with the firm who execute the civil portion of work.

The scope of work shall also include the followings:

- Lift housing / structural work will be carried out by Civil Engineering Department of DFCCI, or Civil contractor appointed by DFCCI. Minor civil / structural work during installation of Elevator shall be carried out by the successful contractor.
- Contractor shall carry out the work in co-ordination with Civil Engineering Department of DFCCI.
- All necessary, Mechanical and electrical works connected with the Design, manufacture, supply at site, painting, testing and commissioning of the elevator inclusive of statutory approvals.
- It will be Contractors responsibility to display adequate sign boards at respective places during erection process.
- Contractor shall also take adequate steps to block the entrances to the lift shaft at various levels/ floors to prevent possible accidents.
- Dismantled materials if any, shall be removed from site of work at regular intervals after notifying the ENGINEER incharge so as to preserve sufficient working space for erection of new elevators.

#### General:

The Machine Room less type Lift shall be governed by relevant International Standards and International Codes of Practice such as European code of safety EN 81, American National Standard Safety Code for Elevators(ANSI) A117.1, IS:14665 or latest and IEC 60364 for Electrical Installations of buildings. The traction machine, over speed governor, ropes, brake gear controls and other safety equipment even though

corresponding to specification EN 81 and ANSI A117.1 should under all conditions of operations at least match with IS code of specification for passenger lifts viz. IS:14665 or latest. This has to be ensured by Lift manufacturers primarily and the manufacturer should have appropriate Quality Assurance accreditation ISO 9000 / ISO 14001. The installations shall be to the highest standard as expected of a fully experienced contractor. The manufacturer shall also comply with the provision of Indian electricity act and rules in vogue and shall be taken over only if and when they fully comply with all their requirements. The lift installation shall also be designed to produce a safe working environment for Engineers and auxiliary works to work on or around.

Sr No.	Description	Particulars	
	Particulars of Details for		
	8/10 Passengers Lift		
Α	General		
1	Capacities	8/10 Passengers – 1300KG	
2	Speed of Travel	1 MPS	
3	Height of Travel	As per site conditions	
4	No. of floors	Ground + 3 floors	
5	No. of opening	4 – as per site conditions	
6	Position of counterweight	Design as per site criteria	
7	Type of levelling method	Automatic +/- 5 mm	
В	Machine		
1	Position of Machine	Top of lift shaft in hoist way/Machine room less	
2	Motor	Permanent Magnet Synchronous Motor, Gear	
		less machine	
3	Electric supply particulars	Three phase, 415 Volts, 50 Hz, 4 wire system	
	for which it is suitable for		
	operation		
4	Type of Control	Microprocessor based, Variable voltage –	
		Variable frequency drive	
	Firm to confirm suitability	of shaft	
С	Brake		
1	Туре	Drum	
D	Car and Doors	Horizontal sliding, centre/side opening with full	
		screen dense infra-red curtain. Electrically	
		operated proximity detector/ infrared curtain	
		devices(s) shall be installed on the leading edge	
		of the car doors. The device(s) shall create two	
		dimensional zone of protection. Two dimensional	
		detection shall be for a height of at least 1800	
		mm of the door. The zone of detection shall move	
		forward as the doors close and the presence of a	

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		person, if within this zone, shall activate the detector to stop the closing movement of the doors and re-open them before hitting the person. The device shall have provision to switch off two dimensional detection.  a) Colored red/green indicators highlight door movement. b) Dense infra-red 234 beam light curtain using pluggable connectors	
1	Outside Dimensions of Car	AS PER SITE CRITERIA	
2	Lift Car Inside Size	As per IS 14665 parts and their latest amendments	
3	Construction of car	Stainless steel scratch proof (HAIR LINE FINISH) on 2 sides, made of 1.5 mm thick panel, with cladding SS - 304 grade	
4	Design/type of enclosure of car	Rectangular /as per site condition, stainless steel scratch proof (moon rock/honey comb/ HAIR LINE FINISH) on 2 sides, made of 1.5 mm thick panel without cladding, SS-304 grade	
5	Details of flooring	6 mm ±1 mm thick Aluminum/ 5 mm SS Chequered plate	
6	Attachment and fitting inside the car	Cross flow fan and LED light fittings with anti-theft arrangement as per standard of the manufacturers.	
7	Car Doors	HORIZONTAL SLIDING, CENTRE OPENING/ SIDE OPENING OR AS PER SITE CONDITION. Car Doors SS Scratch Resistant Stainless steel 304, 1.5 mm in Hairline finish with cladding SS - 304 grade with Vision panel of 125mm x225mm.  a) The car door shall be hung from the top fabricated track and means shall be provided to prevent the door from jumping off the track. The doors shall be provided with two-point suspension sheave type hangers suitable for the type of door operation specified. The hangers shall be provided for vertical and lateral adjustment of car door. The rollers shall move on a fabricated track so shaped as to permit free movement of sheaves with regard to vertical adjustment of sheave bracket or hosting. b) Steel Sills shall be Slot-less type and be provided with a suitable nosing for roller movement on underside of the sill of approximately 25 mm depth on the landing side. c) Dual Coupler of doors	
	Operations Construction Design and	Power operated automatic doors	
	Construction, Design and	Stainless steel scratch proof (HAIR LINE FINISH)	

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	Finish	on 2 sides, made of 1.5 mm thick panel, with		
	–	cladding SS - 304 grade.		
8	Landing Doors	AS PER SITE CONDITION. Each landing door		
		shall be complete with locks, header, sills,		
		frames, rims, hanger supports with cover plates,		
		facia plates etc. The finished work shall be		
		strong, rigid, and neat in appearance. Plain		
		surfaces shall be smooth and free from warp or		
		buckle. Moulded surfaces shall be clean, straight		
		and true. Fastenings shall be concealed from the		
		face side of the material.		
		Steel Sills shall be Slots-less type provided with a		
		suitable nosing for roller movement on underside		
		of the sill of approximately 25 mm depth on the		
		shaft side.		
	Operations	Power operated automatic doors		
	Construction, Design and	Landing Doors SS Scratch Resistant Stainless		
	Finish	steel 304, 1.5 mm thick in Hairline finish with		
		Vision panel of 125mm x225mm.		
E	Safety Devices:			
1	Car Safety Type	Progressive/instantaneous type		
2	Door inter locks in car-type	Electromechanical type		
3	Door locks in landing type	Electrical type		
F	Potential Free Contacts:			
	Whether provided or not?	YES, for each floor position and up and down		
	Give Details	movement of the lift; and in the controller which		
		can be used for building automation system later		
G	Automatic Rescue Device	With UPS and SMF (sealed maintenance free		
	(Give details)	battery) of suitable capacity. The Lift shall be		
		such that in case of failure of the ARD the lift		
		shall become inoperable for passengers use i.e. it		
		shall become out of service for passenger use.		
	For physically at all and a			
H H	For physically challenged	Paguirad in Hindi English and Cuiarati		
a)	Voice Response System	Required in Hindi, English and Gujarati		
b)	Luminous Push Buttons	Required.		
	1 10 D 10 C 1 4	· .		
-	with Brail Script			
c)	Hand Rails	Stainless steel hair line finish, SS-304		
-	Hand Rails SMS Alert system (inbuilt	Provision for sending SMS message to minimum		
-	Hand Rails SMS Alert system (inbuilt system) (pl refer clause	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified		
	Hand Rails SMS Alert system (inbuilt	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified unusual occurrences should be available in the		
	Hand Rails SMS Alert system (inbuilt system) (pl refer clause	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified unusual occurrences should be available in the controller. Provision of SIM and payment of data		
	Hand Rails SMS Alert system (inbuilt system) (pl refer clause	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified unusual occurrences should be available in the controller. Provision of SIM and payment of data charges should be borne by Elevator		
	Hand Rails SMS Alert system (inbuilt system) (pl refer clause	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified unusual occurrences should be available in the controller. Provision of SIM and payment of data charges should be borne by Elevator manufacturer/supplier till Elevator is under		
	Hand Rails SMS Alert system (inbuilt system) (pl refer clause	Provision for sending SMS message to minimum 10 pre-specified phone numbers for identified unusual occurrences should be available in the controller. Provision of SIM and payment of data charges should be borne by Elevator		

 Signage plates	The contractor shall provide the following SS	
Oighage plates	plates inside the lift car:-	
	a)Dos/Don"ts instructions plate of suitable size	
	(as per attachment as Annexure "A" .(tamper	
	proof)	
	' '	
	b) lift capacity no of Passenger & weight(tamper	
	proof)	
	c) Platform No. (tamper proof)	
	, , , ,	
	The contractor shall provide the following SS	
	plates outside the lift car:-	
	•	
	a) lift capacity no of Passenger & weight (tamper	
	proof)	

NOTE: All the lifts above shall have all mandatory provisions, without any extra charge to the owners, to make these lifts fully compatible for use by physically challenged persons.

# 1) All the expenses (cost) for inspection will be borne by the contractor at his on cost.

# 2) Contractor's scope of work -

Contractor"s scope shall include but not be limited to the following –

- i. Design, supply, installation, testing and commissioning of Machine-room less and Gear-less Elevators in stations/ buildings for vertical transportation of passengers (including the differently abled and elderly);
- ii. Supply and fixing of guide rails and related items;
- iii. The elevator shall be supplied in accordance with specific requirements of the site
- iv. Minor civil works (limited to minor items such as chipping, repair or touch up in the shaft for carrying out the elevator installation);
- v. Transportation of material and equipments to site, & storage in proper way in their custody for installation; Loading / Unloading and Transportation of the lift material along with its safety and security in station premises will be the responsibility of the contractor till final handing over of the lift;
- vi. Scaffolding works and barrier fencing at the landings (only to the extent required for installation of Elevators);
- vii. Enclosures and supporting brackets for housing and fixing of equipment;
- viii. Shaft lighting and electrical sockets;
- ix. All equipment, fixtures and materials reasonably required for interface with other Contractors.

NOTE: The following items shall also form a part of contractor's scope if specifically asked for in the tender-

- a) Special tools (Open ended spanner set, 3 sets of lift key etc.), testing and diagnostic equipment and measuring instruments.
- b) Maintenance for specified period.

# 2.1 Feasibility study -Site feasibility study prior to proposing the work.

In respect of Elevators to be provided for transferring passengers from ground floor to second

floor level, the feasibility study for lift shall be carried out by contractor.

# 3) INTERFACES -

- a) The Contractor is required to interface with railway or civil contractor appointed by railway in respect of the Elevator shaft requirement. The Contractor shall coordinate with the railway or civil contractor appointed by DFCCI, to finalize all the details.
- b) The Contractor shall co-ordinate with the DFCCIs and/ or DFCCI appointed civil contractor with regard to the following specific issues: -
- Space requirements, including tolerances to be complied by civil engineering works.
- ii. Fixing requirements
- iii. Loads induced on the building, by the elevator
- iv. Interface with architectural finishes
- v. Location for power supply termination point
- vi. Information on embedded parts, box-outs, etc. so as to enable DFCCI's civil contractors to provide the necessary works
- vii. Hanging pits (if any), including the shaft dimensions
- viii. Equipment access route
- ix. Scaffolding, lifting, etc. to be carried out by the elevator contractor (only to the extent required for elevator installation)
- x. Ventilation requirement
- xi. Integration with DFCCI's fire protection system (if any)
- xii. Rain shed and pit water proofing must be ensured and if required must be carried out at design/installation stage in co-ordination with railways" civil contractor.

### 4) Fire Emergency return -

Contractor must provide a fireman switch at the ground floor. When the building's fire or smoke detectors are activated, all calls should be cancelled automatically and the lift shall travel to the main lobby or a pre-designated floor and park there with the door fully opened. However the Electrical signal that indicates the actuation of the fire sensors must be supplied to the lift controller by others or the fire alarm switch provided on the ground floor is activated. The display to be given in the car with pre-recorded audio message so that passengers do no panic.

# 5) Car lights and Fan automatically shut off -

The lift shall be installed with an energy saving feature that automatically switches off the car internal lighting and ventilation fans when there are no calls registered after a predetermined (Programmable) period of time.

#### 6) Handicap:

It is special for those people who are handicapped, which include Voice anunciator with hand rails, back mirror and horizontal push button station with Braille buttons.

# 7) Alarm Bell and Emergency Light:

The alarm bell is to be provided and fitted in an approved position close to the Lift at Ground floors complete with push button inside the car and with necessary SMF rechargeable Battery. Battery operated emergency lamp should also be fitted in the car which shall work automatically in the event of a power failure, providing illumination within the car. The batteries shall be maintenance free and shall be supplied on board with a battery charging system.

# 8) Batteries and chargers:

The batteries shall be of sealed, high rate maintenance free nickel-metal hydride type, or a type of better functions and performance and approved by the Supervising Officer and shall have a guaranteed life expectancy of at least four(4) years. They shall not have any memory effect as to affect their usable life or performance. The nickel-metal hydride battery shall comply with EN 61436 and EN 61951-2 where appropriate. The battery charger shall be compatible with the batteries used. The charger shall comply with EN 60335-2-29 and be capable of fully re-charge the batteries in not more than 12 hours.

# 9) Stainless steel -

All stainless steel materials specified for car finishes shall be of grade SS 304.

# 10) Wiring and Earthing -

All necessary wiring i heavy gauge conduits from the MCB to the driving motor, controller, call push buttons, door locks, limit switches, alarm bell, halfway junction box and wiring inside the car shall be done by the Suppliers/Contractor in accordance to IEC 60364 for Electrical Installations of buildings. Necessary traveling cables from the car to the halfway junction box in the shaft shall be provided by the Supplier/Contractor. Equipment earthing required for the machine and in the Lift well should be carried out by the Supplier/Contactor. All electrical equipment in the Lift including car body shall be provided with two distinct earthing arrangement as per IS standards and connected to the earth pit provided in stations.

#### 11) Spare parts and tools:

Spares that are considered necessary for continuous satisfactory operation of the equipment for at least two years shall be advised separately, inclusive of rates for reference. Any specials tools required for the maintenance of the equipment shall be submitted along with the tender.

# 12) General requirements:

All dangerous parts shall be effectively guarded. Where applicable, Components shall be designed to be inherently safe, obviating the need for external or removable guards. Every lift car body shall be carried in a steel car frame sufficiently rigid to withstand the operation of the safety – gear without permanent deformation of the car frame.

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The deflection of the members carrying the platform shall not exceed 1/1000 of their span under static conditions with the rated load evenly distributed over the platform. At least four renewable guide shoes, or guide shoes with renewable linings, or sets of guide rollers shall be provided, two at the top and two at the bottom of the car frame.

# 13) ACCESS TO WORK SITE -

- a) Access to the site for the purpose of this contract shall be accorded to the contractor by the purchaser at all times. In the execution of the work no person other than the contractor or his duly appointed representative or approved sub-contractor and bonafide workmen shall have access to the site. Access to the site of work at all times shall be allowed by the contractor to Officials or approved representatives of the purchaser or to Railway staff for purpose of maintenance.
- b) The Purchaser or his authorized representative shall have the right to refuse admission to the work site of any person employed by the contractor whom the purchaser or his engineer may consider undesirable.
- c) The purchaser or his Engineer shall be at liberty to object to the employment of any person as Contractor's Agent/Representative, approved sub-contractor's supervisors, workmen or labourer for execution of this contract on the ground of misconduct, incompetence or negligence. The contractor on receipt of notice of such objection in writing from the purchaser or his engineer shall forthwith remove the person so objected to and provide in his place any other competent person and shall not allow the persons so objected to, to enter the site of work subsequently or remain in the execution of the contract. The purchaser will not be liable to pay any cost or damage on this account.

# 14) ACCIDENTS -

- a) The Contractor shall, in respect of all staff engaged by him or by his sub-contractor, indemnify and keep the purchaser at all times indemnified and protected against all claims made and liabilities incurred under Workmen's Compensations 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 Purchaser indemnified and harmless against all actions, suits, claims, demands, costs, charges or expenses arising in connection with any death or injury sustained by any person or persons within the Railway premises and any loss or damage to Railway property sustained due to the acts or omission of the Contractor, his sub-contractors, his agents or his staff during the execution of this contract irrespective of whether such liability arises under the Workmen's Compensation Act, or Fatal Accident Act or any other statute in force for the time being.

# 15) SAFETY MEASURES -

The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving or working on the Railway premises, but shall then confirm to the

rules and regulations of the Railway. The contractor shall be responsible for safe custody of all equipments till provisional acceptance. Moreover, if any time the works to be carried out directly concern the safety of trains, the contractor"s staff must comply fully with Railway regulations given to him by the authorized Railway staff. The contractor"s employees and workers may for no reason operate an installation concerning train safety or train movement. They shall notify the authorized representative of the purchaser who will take all necessary steps in this regard.

# 16) DEFECTIVE EQUIPMENTS TO BE CHANGED -

Notwithstanding completion of work in partial or full use of any equipment, if the completed equipment or any portion thereof before it finally taken over at the end of the guarantee period be found to be or to have become defective in course of usage by the Railway due to faulty material, design or workmanship, or otherwise fails to fulfil the requirement of the contract and/or its purpose, the purchaser shall normally give the contractor prompt notice setting forth the particulars of each defects or failure and the contractor shall forthwith make the defects good or modify or replace the equipment, as may be directed by the purchaser"s Engineer, at his own cost in all respects to make comply satisfactorily with the said requirements. Should the contractor fail to do within a reasonable time the service of the said notice upon him or should time not permit of service of such notice, the purchaser may repair or reject and replace the whole or part of such defective equipment as the case may be, at the cost of the contractor. The contractor's full liability under this clause shall be satisfied by the payment to the purchaser of the extra total cost, if any, of such replacement delivered and erected as provided for in the original contract, such extra cost being the ascertained difference between the price paid by the purchaser under the provisions above mentioned for such replacement and the contractor"s price for the plant so replaced, plus the sum, if any, paid by the purchaser to the contractor in respect of such defective equipment. Should the purchaser not so replace the rejected equipment within a reasonable time, the contractor"s liability under this clause shall be satisfied by the repayment by the contractor of all money paid by the purchaser to him in respect of such rejected equipment. Rejected/defective materials shall be returned to the contractor to the extent possible.

#### 17) PILFERPROOF DESIGN -

The Elevator equipment (i.e. Indicators, landing call plate, MCB, etc.), if any at Ground level, should be pilfer proof.

# 18) Civil Engineering:

The contractor should inspect site conditions before quoting the tender. The design of the Lift includes the design of the support system and guidance which includes the support of the traction machine and all its accessories. The lift shaft is either 230 mm brick/concrete. The design of the Lift should be compatible with the Lift well and Lift shaft/machine room. The contractor should ensure adequate design so as the individual load and their distribution of car, counter weight for both normal and abnormal working (Accident), or within the structural design limits of lift well. The anchorage and guidance of car and counter weight will be designed to suit the lift shaft under all conditions. This is considered as primary responsibility of the contractor.

# 19) WATER PROOFING OF LIFT MACHINARY AND PIT -

The Contractor shall liaise with the railway to ensure for proper drainage and pumping of water/rain water with water sensing device if demanded from the Elevator pit. For elevator pits on railway platforms, this may call for provision of pump, it may ensure for proper water proofing of machine housing, equipment, electronics, panel, machine at the time of structural /shaft erection with respect to machine room less design. It shall also ensure that proper platform for machine maintenance, installation & overhauling, staircase & excess window shall be done as per requirement. Further during MAINTENANCE/WARRANTY, THIS TYPE OF PROTECTION PROVISIONS FROM WATER /MONSOON MUST BE ARRANGED BY LIFT CONTRACTOR ONLY.

# 20) FOLLOWING ADDITIONAL DOCUMENTS SHALL BE SUBMITED FOR ALL LIFTS – a) LICENSE FOR ERECTION FOR LIFTS –

Tenderer should have License for erection and maintenance of lift from Lift Inspector, Government of Gujarat.

# b) Test by lift inspectors, Government of Gujarat -

It will obligatory on the part of successful tenderer, on completion of installation of the lift to arrange for the inspection of the lift installations by the lift inspector of Govt. of Gujarat, at his cost. Any defects/deficiencies pointed out by the lift inspector, during such examination, should be promptly attended by the tenderer and the lift will not be taken over by the DFCCI until the lift Inspectors clearance certificate for commissioning the lift is submitted to the Railway.

- c) Submittals
- d) Drawings etc.:- The successful tenderer shall supply 3 sets of the layout diagram of the lift.
- e) Wiring diagram and literature
- f) Operating and maintenance instructions
- **21)** After successful installation of lifts, the contractor should remove the debris and make the location clean, before handing over the lift to DFCCI for operation.

# 22) CONFORMITY WITH STATUTORY ACTS, RULES, REGULATIONS, STANDARDS AND SAFETY CODES –

The installation shall be carried out in conformity with the local Lifts" Acts and Rules. For example the Bombay Lifts Act for Bombay, The West Bengal Lifts and Escalators Act for lifts and escalators for West Bengal, the Bombay Lifts Act as extended to Delhi for Delhi etc. At other places where no local lifts" act is in force, the Bombay Lifts Act shall be followed. The installation shall also conform to requirements of local Municipal bye-laws. It shall be obligatory on the part of the successful tenderer to arrange for inspection of the lift installations on completion of installation of the lift by lift inspector of Govt. of Gujarat, at his own cost. Any defects/deficiencies pointed out by the lift inspector, during such examination,

shall be promptly attended by the tenderer and the lift will be taken over only when the lift Inspectors clearance certificate for commissioning the lift is submitted to the Railway.

# 23) FIRE REGULATIONS -

The installation shall be carried out in conformity with the local fire regulations and rules there under wherever they are in force.

# 24) INDIAN ELECTRICITY ACT AND RULES -

All electrical works in connection with installation of electric lifts shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and the Indian Electricity Rules, 1956 amended up to date. The electrical works shall also conform to CPWD General Specifications for Electrical works Part-I (Internal), 1994 and Part-II (External), 1994 as amended up to date wherever relevant.

# 25) Penalty:

The defective part shall be put into operation after necessary repairs and put right lift in operation within 24 hours from receipt of intimation of failure. If contractor fails to do so penalty at the rate of 200 rupees per day beyond stipulated time shall be charged.

The penalty shall be deducted from Security Deposit. In case of no response from the contractor within the stipulated period, the lift will be got repaired departmentally/through other agencies and amount will be deducted from Security Deposit. (Departmental cost shall include cost of Supervisor, technician and khalasi, cost of material used). If security deposit forfeit, penalty will be deducted from contractor's other running contract.

# 26) Preventive Maintenance and Schedules during Guarantee Period:

The contractor shall service the lifts thoroughly once in a month and attend the breakdown complaints free of charge during the guarantee of **12 months**.

(a) However copy of schedule of maintenance during the guarantee period is enclosed herewith.

### (b) Maintenance schedule for Electric lifts.

The following maintenance schedule should be carried out during the maintenance of lifts and a record should be maintained in the office of the concern engineer In charge. Any abnormality noticed during the schedule should be attended immediately (within 2 hours) and proper operation ensured. Preferably Lifts should be taken up for Schedule of Maintenance on Saturday/Sunday/Holidays or between 07.00 AM to 8.30 AM or after 06.30 PM.

• The lift will be serviced in once in a month and will include oiling cleaning of the controller, motor and gear machine, oiling and greasing of the guides and bearing and performing of necessary adjustment. The contractor will be responsible for repairing and replacement of work out parts such as the contactors, relays, break liners, guide shoes,

guide shoes lines, gate locks and safety devices. Contractor shall have to submit maintenance report duly signed by DFCCI representative.

- The contractor will attend to worn about damaged bushings and bearings of gear and
  motor also he will be responsible for getting repaired the lift motor whenever the same
  get burnt or damaged. The gear box is to be serviced and oil replaced at in Guarantee
  period. The contractor will support the condition of the gear every six months.
- The contractor will be responsible to maintain the lift to the standard of Gujarat lift & elevators Act 2001, the contractor will answer queries of all lift inspectors and be responsible to carry out necessary minor modifications free of cost any major modification will be reported to us. And DFCCI will decide by whom and when to get it done.
- The contractor has to furnish Regular Comprehensive Maintenance for passenger lifts at rest house
- Contractor shall have to use trained men directly employed and supervised by them.
   They will be qualified to keep equipment properly adjusted and will use all reasonable care to maintain the elevator's equipment in proper and safe operating condition.
- Contractor shall have to follow the schedule maintenance of electric lifts as per this Para during Guarantee period.
- Contractor will regularly and systematically examine, adjust, lubricate as required, and if
  in judgement conditions warrant repair and replace all elevator parts.
- To examine periodically safety devices and governor and make annual safety tests.
- In case of rope failure during the Guarantee period of Passenger lift at **site / rest house**, same to be replaced by the contractor at his own cost including material.

# I. Monthly Schedule of Maintenance:

S. No	Nature of Work	Periodicity
1	Check and attend fitting of Lift (light, fan, emergency light, failure alarm etc.)	Monthly
2	Check Level of the lubricating oil in the gearbox, any unusual sound in the gearbox.	Monthly
3	Check the operation of all the doors, door locks.	Monthly
4	Check the brakes and adjust it.	Monthly
5	Check the operations of the limit switches.	Monthly
6	Clean machine and associated equipment"s.	Monthly
7	Check the main switch contacts and earth connections/continuity.	Monthly

8	Check the main switch, fuses etc. (for loose	Monthly
	connection, oscillation and ratings etc.)	•
9	Check the general condition of the motor.	Monthly
10	Control Panel:	Monthly
	a) Check overhead relays operation	Monthly
	b) Check the interlocks for its proper function.	Monthly
	c) Check the relay contacts their operation and chattering.	Monthly
11	Check the electrical connections.	Monthly
12	Check the foundation bolts of the motor any unusual noise, vibration etc.	Monthly
13	Check the input voltage & current of the motor and record it.	Monthly
14	Check the leveling switches, arm pivots and limit switch rollers and lubricate.	Monthly
15	Check the performance of the over speed governors and adjust if necessary.	Monthly
16	Check the working of the floor selection switch.	Monthly
17	Check floor indicators.	Monthly
18	Check all ropes, hinges, shackles etc.	Monthly
19	Check the microprocessor control for its proper functioning.	Monthly

# II. Quarterly Schedule of Maintenance:

S.No	Nature of Work	Periodicity
1	Lubricate the rope pulley bearings	Quarterly
2	Check tightness of the counter weight, fixing clamps, bolts etc.	Quarterly
3	Check the trailing cables for broken/damaged insulation and loose binding.	Quarterly
4	Check the condition of the pit clean the car top and clean the gate.	Quarterly
5	The wire ropes should be cleaned by a stiff brush to remove old lubricant and lubricate it again by using oil machinery medium or equivalent.	Quarterly
6	Clean the ropes for broken strands and general condition.	Quarterly
7	Check the dia. of the rope and record it.	Quarterly
8	Rope winding drum to be checked for its proper winding in the sheave grooves.	Quarterly
9	Measure the voltage and current at the various test points in the control system including microprocessor control and record it.	Quarterly
10	Check the fixing bolts of the motor for any vibration.	Quarterly

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# III. Yearly Schedule of Maintenance

S.No	Nature of Work	Periodicity
1	Overhaul the motor for bearings and alignment.	Yearly
2	Check car body supports and steel channels.	Yearly
3	Check the condition and wear in the bearings.	Yearly
4	Clean and check guide rails.	Yearly
5	All break gear to be reconditioned.	Yearly
6	Solenoid coils to be tested.	Yearly
7	Limit switches to be overhauled and adjusted.	Yearly
8	All the interlocking arrangements to be overhauled and checked for proper functioning.	Yearly
9	Gearbox to be overhauled completely.	Yearly
10	Check the microprocessor units for the proper functioning.	Yearly

# IV In addition to the above periodical maintenance the firm has to attend the following:

a)	The firm has to attend the breakdown failure at any time during the working hours without any delay.
b)	They have to supply the required consumables, spares, to keep the lift in
,	good condition.
c)	While attending the quarterly schedules the firm has to carry out the
	monthly schedules also.
d)	While attending the yearly schedules the firm has to carry out the monthly
	and quarterly schedules also.
e)	Maintenance schedules should be carried out in consultation with
	concerned site incharge mostly on Saturday/Sunday/Holiday or between
	07.00 AM to 8.30 AM or after 06.00 PM.

# <u>DETAILED SPECIFICATIONS AND SPECIAL CONDITIONS FOR</u> SCHEDULE "F"

(Item no. 1 to 11)

The work shall be carried out as per DSR-2022 item descriptions and specifications of CPWD DSR and latest instructions/guideline issued.

Note :- Guarantee/Warranty certificate if applicable shall be handover to DFCCIL after completion and testing of work/item.

# 6. TELEPHONE, CCTV, NETWORKING ITEMS

#### ITEM NO. 12, 13 & 14

Digital / PCM / TDM EPABX System having SMT design, system with flexible universal slots. Inbuilt Auto attendant facility, Minimum 15 Nos. conference, Analog extension line, Calling GSM, E&M line, PRI / EI & VOIP program me through Analog telephone digital key from Ethernet, public address cord, shall have unrestricted simultaneous dialing facility, QSIG protocol on PRI, 95 / STD / ISD / Local-Locking, Class of Service, Quick Dial-Single Digit dialing of any two external number, Once only ring device, Boss/Secretary-Do not disturb Facility, Power Down Mode, Hot Line, Hot Outward Dialing, Day Night Mode, Auto Call Back, Barge-in, Call Pick Up & Call Transfer, Call transfer while Ringing with Voice Guide System, (DISA), Caller ID (CLI), CLI Base ECF, CLI Base routing Internet Ready Port, External Music Port, Call Budgeting, Call Most Calculation (ASMDR), DID Direct Inverse Dialing, External Music Input, Fax Homing, Global Directory Printing with following capacities[A] No of Extension 16, No of Junctions 6, 8 Port IP Resource in-built, 4 Port Web base Video Conferencing, No of expandable ports: 48, Operators Console - 01 Compatible: ISDN

#### **EPABX SYSTEM:**

Features	Required or Not
Technology	PCM TDM
KTS Support	Yes
ISDN BRI & PRI	Yes
E & M Support	Yes
E1 Support	Yes
Hybrid technology	Yes
External Caller ID display on	
console and Key phone	Yes
External Music	Yes
Paging Port	Yes
Conference facility	Yes-8 Party
Memory Storage	32 MB Secure Digital (SD) RAM

DISA Card Yes. 4 Port. 64 different messages.

8 minutes storage

DOSA Feature Yes

VoIP Yes. Open Industry standard

System connectivity V.24 Port and USB Port built in on system

Range of Key phone Yes
Auto Redial on Key Phones Yes
Back Lit Key Phones Yes

USB/Comp. connectivity on

Key phones Digital-XDP. Also USB

No. of keys on Key Phones 9 to 37 keys
DSS Connectivity 60 keys
Supports PC Console Yes
OHCA on Key Phone Yes

Jog Dialler/Navigator Keys 4 Navigator Keys

Absence messages Yes. On Key phones and also simple phones

Incoming call routing based

on caller ID Yes Two way recording of external call Yes Personal greeting to external caller Yes MS Outlook integration Yes POP UP of incoming caller Yes WEB Site/URL integration Yes Call details/log of incoming callers Yes **Tenant Facility** Yes

System modes 3. Day, night and lunch

Appointment reminders Yes 19 inch variants Yes

## ITEM NO. 15

Telephone Cable electrolytic copper conductor PE insulation twisted in two pairs, & wrapped with FRLS PVC tape & sheathed with FRLS PVC or HFFR outer Jacket suitable for telephone wiring & confirming to C-DOT erected in existing pipe. of following size of conductors & nos.of pairs. With necessary connections. [A] Conductor Size 0.5 mm 5) Ten Pairs

The type of cables and the services shall be as follows:

Indoor – Multipair PVC sheath armoured / un-armoured as specified 0.6 mm tin Cu. Cable.

Outside -- Multipair PVC sheath armoured / jelly filled as specified 0.6 mm tin Cu. Cable. All multi core cables and wires shall be of tinned copper conductor of not less than 0.6 mm dia and shall be colour coded twisted pairs with rip cord.

The conductor resistance shall be less than 150 ohms per KM and the insulation resistance between the conductors not less than 50 mega ohms and the nominal capacitance of about 0.1 microfarad per kilometre.

Cables laid under ground or locations subject to dampness and flooding shall be filled with polyethylene compound and shall have sufficient protection against moisture and

water ingress.

All armouring shall be of galvanized steel wires and protected against corrosion by an outer sheath of PVC in the case of indoor cables and polyethylene in the case of outdoor cables. Outer sheathing must be fire retarding and anti-termite.

All un-armoured single core cables and inner sheath of armoured cables shall be provided with ripcord.

# **ITEM NO. 16**

Main Distribution (MDF) indoor type, back mounted frame as per DoT standard approved with krone strips(b) Suitable for 20 pair

The telephone tag blocks shall be suitable for the multi core telephone cables and shall have two terminal blocks, cross connect type. All incoming and outgoing cables shall be terminated on separate terminal blocks and termination shall be silver soldered. The cross connecting jumpers shall be insulated wires of same diameter and screw connected.

The tag blocks shall be mounted inside fabricated sheet steel boxes with removable hinged covers and shall be fully accessible. The enclosure shall be painted with 2 coats of red oxide and stove enamelled.

### **ITEM NO. 17**

Modular Type Accessories mounted with PVC / metallic / Wooden box, single mounting base frame covered with textured / metallic/white front plate , modules erected with necessary connections as per site situation directed by Engineer In charge. (8) Computer RJ-45 socket

The computer sockets shall be of Cat 6 category and of the make specified in the tender. The sockets shall be installed in the plates of the modular switches range to be used. The sockets shall be crimped using crimping tool with the Cat6 wire.

#### B. WORKMANSHIP

All cables shall be on cable racks and neatly stitched together.

The connection at the tag blocks shall be silver soldered so as to achieve minimum contact resistance.

The final branch connections with single pair cables in conduits and the maximum number of cables in each conduit shall be as follows:

Conduit	diameter	Max. No. of cables
Inch	mm.	
3/4"	20	2 Nos. single pair
1"	25	6 Nos. single pair
11/4"	32	12 Nos. single pair
1½"	40	18 Nos. single pair

The tag blocks shall be mounted inside fabricated sheet steel boxes with removable

hinged covers and shall be fully accessible. The enclosure shall be painted with 2 coats of red oxide and stove enamelled.

#### **ITEM NO. 18**

4 way splitter Box for incoming RG 11 / RG6 to 4nos RG11 / RG6 outgoing. Splitter shall be made of MS Material and specified as per service provider.

#### **ITEM NO. 19**

24 port network switch with complete accessories - switch bring the speed of Gigabit Ethernet to each and every port for a truly high-speed network. If your network has a mix of legacy and modern computing capabilities, each port allows for 10Mbps standard Ethernet, 100 Mbps Fast Ethernet, or 1000Mbps Gigabit Ethernet connections. The latest technology available to every computer and device connected to your network.

EEE: Enable/Disable IEEE 802.az Energy-Efficient Ethernet

Flow Control: Enable/Disable Flow Control

Port Isolation: When enabled, ports 1 to 23 will be isolated from each other, but will still be able to communicate with port 24. Port 24 will be able to communicate with all the ports available on this switch

Storm Control: When enabled, a broadcast storm control threshold value of 128 kbps will be applied to incoming broadcast packets on all ports

Port type - Gigabit Number of ports - 24

Housing - Metal body

Form Factor - Desktop / Rack mounted

Fan - Fanless
Switching Capacity - 48 Gbps
Warranty - 1 year
Wattages - 13.5 Watt
Voltage - 240 Volts

U-rack size - 1U

## CCTV MONITORING & RECORDING SYSTEMS (ITEM NO. 20, 21, 22, 23, 26)

#### **GENERAL**

The Closed Circuit Television System (CCTV system) shall provide an on-line display of video images on monitor. Cameras with suitable lenses shall be used to view specific areas of interest. The primary objective of implementing a CCTV system is to ensure effective surveillance of an area and also create a record for post event analysis.

#### **EQUIPMENT**

### Tender No. DFC\_ADI\_ENG\_ORH\_OCC

The CCTV System shall comprise of Fixed Lens, C-CS Mount high resolution colour Cameras, Hi-Speed Dome Camera's, Standalone Digital Video recorder, Monitor and other associated accessories.

#### IR DOME / BULLET CAMERA:

- Ultra high resolution: 700 TVL
- Built-in IR LEDs with up to 30m IR visible range
- Minimum Illumination: Color 0.01 Lux, B/W 0 Lux (IR ON)
- TDN (ICR-Cut), OSD Menu, ATR, SDNR, HLC, BLC
- 3.6mm / 6.0mm lens available
- PAL / NTSC available

#### **TECHNICAL SPECIFICATION:**

Signal System	PAL	NTSC	
Image Sensor	1/3" Progressive CMOS		
Total Pixels Number	1028(H) x 596(V) 610K	1028(H) x 508(V) 520K	
Effective Pixels Number	976(H) x 582(V) 570K	976(H) x 494(V) 480K	
Scanning System	2:1 Interlace		
Scanning Frequency(H)	15.625 KHz	15.734 KHz	
Scanning Frequency(V)	50 Hz	59.94Hz	
Horizontal Resolution	Color: 700TVL, B/W: 720TVL		
Min. Illumination	Color: 0.01 Lux (15IRE), B/W: 0 Lux (IR ON)		
Sync. System	Internal / External		
S/N Ratio	More than 52dB (AGC Off)		
Video Output Level	1 1.0V p-p (750hm Unbalanced, Composite)		
Shutter Speed	1/60 (1/50), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 Sec.		
Lens	3.6mm fixed lens		
Day & Night System	TDN (ICR-Cut)		
IR Distance	Up to 30m		
Super DNR	OFF/ 2D (Y 0-15)		
White Balance	ATW, PUSH, USER1, USER2, ANTI CR, MANUAL, PUSH LOCK		

AUTO (0FF, 37dB), MANUAL (6.00dB ~ 44.80dB)		
BLC, OFF, HLC (High Light Compensation)		
English, Chinese, Japanese, German, French, Russian, Portuguese, Spanish		
Image Mirror, Adjust Brightness, Adjust Contrast, Adjust Sharpness, Adjust HUE, GAIN		
Off / ON (Luminance (L,M,H),Contrast (L,ML,M,MH,H))		
8 Areas (On/Off, Color, Position)		
4 Areas (On/Off, Position, Sensitivity)		
IP66 weather-proof		
-10°C to +50°C		
30% to 80% RH		
12VDC (±10%), Max. 4W / 330mA		
127 (D) x 86.5 (H) mm		
Approx. 450g		
CE, FCC		
	English, Chinese, Japanese, Portuguese, Spanish Image Mirror, Adjust Brightne Sharpness, Adjust HUE, GAI Off / ON (Luminance (L,M,H) 8 Areas (On/Off, Color, Posit 4 Areas (On/Off, Position, Sel IP66 weather-proof  -10°C to +50°C  30% to 80% RH  12VDC (±10%), Max. 4W / 3  127 (D) x 86.5 (H) mm  Approx. 450g	

#### NVR:

- **High Resolution Recording:** Real-time @ D1 and WD1 / 960H resolution, max. resolution of 960 x 576 (PAL) / 960 x 480 (NTSC)
  - 2 SATA HDD: total storage 2 x 4TB = 8TB
  - **Multiplex operation:** live view, record, play back, backup and remotely control the system simultaneously.
  - **USB flash drive:** 2 USB ports support mouse and data transfer.
  - HDMI and VGA output
  - Ethernet LAN with an RJ-45 connector: for remote access, supports TCP/IP, free DDNS service and UPnP.
  - PTZ control: PELCO-D and PELCO-P support.
  - Free DDNS Server Service: support remote control through DDNS service by free of charge.
  - **CAWDView:** free Android and Apple app for 960H NVR series to give you full access to your surveillance system anytime, anywhere.

#### **TECHNICAL SPECIFICATION:**

Tender No. DFC_ADI_	ENG_ORH_OCC			
Video				
Video Input		8 channels, 1.0Vp- p, 75Ohm	16 channels, 1.0Vp-p, 75Ohm	
Video Standard	PAL/NTSC			
Video Output	CVBS/VGA/HDMI			
VGA Output	1024 x 768, 1280 x 1024, 1440 x 900,720P (1280 x 720),1080P (1920 x 1080)			
Image & storage Resolution	4 channels WD1 record& 2 channels WD1 real time playback	record& 2 channels record& 8 channels WD1 real time		
Audio				
Audio Input	4 channels RCA Input	8 channels RCA Input	4 channels RCA Input	
Audio Output	1 channel RCA Output	1 channels RCA Output	1 channels RCA Output	
Recording				
Compression Format	H.264 VBR/CBR			
Compression Resolution	WD1 Real Time			
Recording Mode	Manual/alarm/motion detection/timing			
<b>Motion Detection</b>	Each Channel Area Se	electable (Sensitivity	Adjustable)	
Data Authentication	NO Watermarking			
Playback				
Playback	4 channels	8 channels	16 channels	
Playback Mode	Normal Playback, Vari	ous playback speed (	(Forward, Backward, Step)	
Search Mode	Date/Time			
Alarm				
Alarm Input	4 Alarm inputs	4 Alarm inputs	8 Alarm inputs	
Alarm Output	1 Alarm output	1 Alarm output	1 Alarm output	
Display				
Multi-screen Display	1/4 Windows	1/4/9 Windows	1/4/9/16 Windows	
Languages				
Languages	English, Chinese, Korean			

Tender 1(0) B1 C_11B1_	ENG_OKII_OCC
Storage & Backup	
DVD Writer	N.A.
Internal HDD	2 SATA HDD
Data Backup	Internet (Support network download and backup)
	USB2.0 (Flash disk, portable disk, USB burner and etc.)
Serial Port	
PTZ Camera Control	N.A.
Operation	
Control	Via Front Panel Control, USB Mouse, Remote Controller, TCP/IP
Applications	(Network), Cell Phone Interface
Network	
	ActiveX Base Web Live & Search/CAWD-CS Access (Live, Setting,
Tool	Search, Recoding, ETC.)/Cell phone Network
	Protocol: TCP/IP, PPPOE, SMTP,UPNP,DHCP and DDNS, 3G
	10/100 base-T Ethernet (RJ-45)
System Time Sync	Support Network Time Protocol
Others	
Operating Temperature	-10°C~55°C
Operating Humidity	10%~90% / Non-condensing
Power	DC 12V,4A
Dimensions	380 (W)×295 (D)×55 (H) mm
Weight	Approx. 3kg (Exclude HDD)
Certificates	CE, C-tick

#### **MONITOR**

The monitor shall be suitable with the standards of the selected cameras. It shall be solid state and modular in design. It shall provide a bright, clear and well defined picture display on the screen.

All controls for brightness, contrast etc. shall be provided on the front panel for readily adjusting the levels of the video signal. The rear panel shall be provided with input and output BNC connectors for coupling the video output to other Monitors. The video monitors installed shall be at least 21" size or more and shall comply with the specification.

#### **POWER SUPPLY UNIT:**

The Power Supply Unit shall be capable for 12Vdc Regulated Output for Camera with

Overload & Short Circuit Protection.

#### ITEM NO. 24

12U Wall mounted IT rack with exhaust fan, 5A Socket power strip, tray complete with all accessories

Rack Standard : Conforms to DIN 41494 or equivalent standard

Construction : Welded

Front Door : Lockable Toughened Glass Door

Basic Frame : Steel

Equipment Mounting : DIN Standard Slots

Mounting Angle : 19" Mounting angles made of formed steel

Standard Finish : Powder Coated

Top and Bottom Cover : Welded to Frame, Vented and Field Cable entry

exit cut outs

Standard Color : Grey / Black

Static Load : 25 kgs

Dimensions :  $550(W) \times 600 (D) \times 620 (H)$ 

Exhaust fan : 2 nos.

5A Socket strip : 6 nos. 5A socket in strip

1U Cable manager : provided Hardware packet : provided Cantilever tray : provided

#### ITEM NO. 25

24 PORT PATCH PANEL / PATCHMAX PANEL (CAT-6) - D LINK

Identification:

ID Plate: PC, transparent color with paper Panel: SPCC, 1.5mm thickness with black color

RJ45 Jack

Housing :PBT +Glass fiber UL94V-O

Contact Brackets: PBT + Glass fiber UL94V-0, black colour

RJ45 Jack Contact

Material: Phosphor bronze with nickel plated

Finish: 50 micro-inch Gold plated on plug contact area

**IDC** 

Housing: PC, UL 94V-0

Terminal: phosphor bronze with tin plated

Jack bracket set:

ABS

Support Bar

SPCC, 1.5mm thickness with Black colour painted

Contact Resistance : 20 Milliohms max.

Insulation Resistance : 100 Megaohms min. @ 500 VDC

RJ45 Jack Life : 750 Times min IDC Life : 200 Times min Storage : -40 To +70 Operation : -10 To +60

#### ITEM NO. 27: CEILING MOUNTED WIFI ROUTER

#### **SPEFICIFICATION**

Dual Band Wifi 6 (802.11ax).

- 300+ Concurrent Client Capacity & Operates at Full 4x4 Mimo with 160 MHz Bandwidth.
- Guest Traffic Isolation, which Enhances Wireless Network Security & Lowers Traffic Congestion.
- 2.4 GHz (2x2 MU-MIMO & OFDMA) Band with a 573.5 Mbps Throughput Rate & 5 GOFDMA) Band with a 4.8 Gbps Throughput Rate.

Additional Details	Power Method: 802.3at PoE+
Antenna     DATA	Gain: 2.4 GHz: 4 dBi & 5 GHz: 6 dBi 802.11b: 1, 2, 5.5 & 11 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps 802.11n (WiFi 4): 6.5 Mbps to 600 Mbps (MCS0 - MCS31, HT 20/40) 802.11ac (WiFi 5): 6.5 Mbps to 3.4 Gbps (MCS0 - MCS9 NSS1/2/3/4, VHT 20/40/80 &160) 802.11ax (WiFi 6): 7.3 Mbps to 4.8 Gbps (MCS0 - MCS11 NSS1/2/3/4, HE 20/40/80 &160)

INTERFACE Management Ethernet Bluetooth

INERFACE PORT Networking GbE RJ 45

MATERIAL Plastic
 POWER 10-15W
 STANDARD CE, FCC & IC

VOLTAGE Adapter: 48V 44-57V DC
 WIFI 802.11a/b/g WIFI 4/5/6

# Tender No. DFC\_ADI\_ENG\_ORH\_OCC LIST OF APPROVED MAKES OF MATERIALS FOR ELECTRICAL & ELV WORKS

The DFCCIL reserves the right to select any of the brands indicated in the `list of approved makes'. The tenderer shall quote his rates on the basis of the price of the brand/make stipulated in the item of works as described in BOQ & specification as well as in the list of approved make. The contractor cannot claim anything extra if the DFCCIL changes the make but within the list of approved make, before placing the order. Order of the makes is not preferential. Final choice of makes lies with the DFCCIL. All materials shall be with ISI mark. Contractor shall get makes approved before procurement.

The successful tenderer shall have to use the makes from above in consultation with the DFCCI AND/OR ITS ARCHITECT.

For at par comparison tenderer shall consider 1<sup>st</sup> listed make as long as possible.

- (a) Casing caping/conduit: Protoplast, Precision, Modi, Volex, Press Fit, Premium.
- **(b) Copper / aluminium Wire :** Polycab, Finolex, RR Kabel, Havells, Avocab, Anchor, Pyroflex, Paragon, CCI, HPL, Bentec, .
- (c) Holder, ceiling rose, switches: Anchor, Leader, Cona, Harison, Indoasian, legrand, MK, Crabtree.
- (d) Modular switch and socket: Anchor/ Roma, Penta, Cona, Leader, Crabtree, Legrand. MK
- **(e)** Plug/socket 6/16 Amp, adopter: Anchor, Cona, Leader, Roma, Penta, Havells, legrand, Indoasian, Crabtree, MK, Precision, Veto.
- (f) Call Bell: Cona, Anchor, Leader, Precision, Veto, havells. MK
- (g) DP switch with fuse: Anchor, Leader, Cona, Harison, Havells, Veto, C&S, L&T, GE, Indo-Asian.
- (h) Electronic fan regulator : Anchor, Penta, Roma, Rider, Jainex, MI, Cona, Legrand, Leader, Crabtree, MK, Ave, Philips, Havells.
- (i) MCB-DB, ELCB, RCCB, RCBO: GE, Indoasian, HPL, Havells, Legrand, C&S, Oreva, Bentec, L&T.
- (j) MCCB: L&T, GE, Siemens, HPL, Indoasian, Havells, Legrand, ABB, Schneider, C&S.
- (k) GI Pipe: Zenith, Prakash Surya, Jindal, TATA, Swastika, Asian.
- (I) Measuring Instrument Voltmeter/Ammeter: AE, IMP, Motwani, Meco, Trinity, Toshniwal, Jaipurmeter, Simco, Macco, Ruttonsha, Simpson, Hitachi, L&T, Baroda meter. Havells.
- (m) Electronic Energy Meter: L&T, Siemens, Jaipur, Meco, Enercon, Udaipur, Havells, HPL, Bentec.
- (n) Indication lamp: L&T, Siemens, C&S, Teknik.
- (o) Instrument transformer(CT/PT): Ashmor, C&S, L&T, MECO, Virat, Kuppa, AE.

- (p) Paints: Asian, Nerolac, Dulex, Shalimar.
- (q) Exhaust/ padustal fan: Crompton Greaves, Usha, GEC, Alfa, Unique, Almonard, Inova, Khetan, Havells, Bajaj.
- (r) Data and Voice wires: D link, Honeywell, Schneider
- (s) Telephone cables: Armoured / Unarmored / Jelly filled as per SOQ of Delton / Finolex /RR Cabel / KEI
- (t) PVC Armoured XLPE LT Cable: XLPE armoured cable for 1.1 KV as per IS: 7098. Polycab / Finolex / KEI / RR Cabel
- (u) Glands: comet, Dowells, HMI, Standard Metal Industries, Hansel, Lapp.
- (v) Cable Lugs: Dowells, 3-D, Comet, HMI
- (w) Telephone tag block : Krone / Legrand
- (x) Light Fixture Commercial Indoor / Outdoor : Wipro , Philips, GE
- (y) Ceiling Fans: Crompton, Orient, Usha
- (z) TV Cable co axial : Finolex, RR Cabel, Polycab
- (aa) CCTV SYSTEM (CAMERA / NVR): Hikvision, Sony
- (bb) NETWORK SWITCH / PATCH PANEL : D link, Netgear, Cisco
- (cc) Motion Sensor: Wipro, Philips, Havells, Legrand
- (dd) Ceiling mounted WiFi: D link, ubiquit

 $Tender\ No.\ DFC\_ADI\_ENG\_ORH\_OCC$ 

# **PART-IV**

# CHAPTER - I

# MILESTONES AND TIME SCHEDULE

#### 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 7 (Seven Months) from the date of issue of letter of acceptance from DFCCIL.

The contractor shall be expected to mobilize to the site of works and commence execution of the works within 10 (days) from issue of Acceptance Letter by DFCCIL.

The contractor shall be expected to complete the whole work ordered on the contractor within 7 (Seven 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 forfeit fully the Earnest Money Deposit and performance guarantee of the contractor.

#### 4.1.1.2 Progress of works:

The contractor shall submit a programme of work in the form of a Bar Chart of all the activities in consistence with milestone target envisaged below. In case this bar chart requires to be modified, the Engineer and the contractor shall agree upon a time and progress chart. The chart shall be prepared in direct relation to the time stated as 7 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 Engineer and the contractor within the limitation of 7 (Seven Months) as overall completion period.

#### 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.

Milestone Targets	Time allocated within which to achieve completion in total 7 (Seven) month time
(a) Physical commencement of work	D + 10 days
(b) Mobilization of equipment, machinery, men and material	D + 15 days
(c) Construction of foundation	D + 30 days
(d) Construction of frame structure completed	D+ 100 days

(e) Construction of Brick masonry work	D+130 days
(f) Flooring, plumbing and finishing work	D+150 days
(g) Lift and Lighting works (Elect.)	D+170 days
(h) Colour/Painting	D+180 days
(i) Balance Works Completed	D+210 days

Note: "D" is the date of issue of Letter of Acceptance by DFCCIL to the contactor.

# **PART-IV**

# **CHAPTER II**

TENDER FORMS (INCLUDING SCHEDULE OF PRICES)

# $Tender\ No.\ DFC\_ADI\_ENG\_ORH\_OCC$

#### **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
Form No.10	Draft Agreement for JV
Form No.11	Pro-forma of Participation from each partner of JV
Form No.12	Power of Attorney for authorized signatory of JV Partners
Form No.13	Power of Attorney to lead partner of JV
Form No. 14	Performa for Time Extension
Form No. 15	Certificate of Fitness
Form No. 16	Performa of 7 days" Notice
Form No. 17	Performa of 48 Hours" Notice
Form No. 18	Performa of Termination Notice
Form No. 19	Format of Bank Guarantee for Mobilisation
Form No. 20	Format of Integrity Pact
Form No. 21	Anti-profiteering
Form No.22	Format for certificate to be submitted /uploaded by tenderer along with
	the tender documents
Form No.23	Tender's Credential (BID Capacity)
Form No.23A	Statement of Works in Progress for Bid Capacity
Form No. 24	Final Supplementary Agreement
Form No. 25	Agreement towards Waiver under Section 12(5) and Section 31A (5) of
	Arbitration and Conciliation (Amendment) Act
Form No. 26	(Bid Security) Bank Guarantee Bond from any scheduled commercial bank of
	India
Form No. 27 A	Proforma Of 14 Days Notice For Offloading Of Part Of Contract Work
Form No. 27B	Notice For Part Of Contract Work Offloaded
Form No. 28	MOU- Electrical Work

#### **OFFER LETTER**

rk of <u>nedab</u>	"Construction of proposed Officer Rest House at CGM Office, DFCCIL, Sabarmati, ad.".
	eneral Manager, ,, Ahmedabad
We,	the undersigned, declare that:
(a)	We have examined and have no reservations to the Bidding Documents, including Addenda.
(b)	We offer to execute the Works in conformity with the Biddin Documents;
(c)	Our bid shall be valid for a period of 60 days from the date fixed for the bis submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of the period;
(d)	We have not been blacklisted/banned in accordance with para.1.3.13 (iii) or Preamble and General Instructions to tenderers.
(e)	We are neither Bankrupt/Insolvent nor in the process of winding-up nor there is case pending before any Court on deadline of submission of the Bid i accordance with para. 1.3.13 (iii) of Preamble and General Instructions to tenderers.
(f)	If our bid is accepted, we commit to obtain a Performance Guarantee is accordance with the Bidding Documents;
(g)	If our bid is accepted, we commit to deploy key equipment and key personne consistent with the requirements of the work.
(h)	We understand that this bid, together with your written acceptance thereconcluded 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
	All information, statements and description in this bid are in all respect true, correct
(i)	and complete to the best of our knowledge and belief and we have not made an tampering or changes in the bidding documents on which the bid is bein submitted and if any tampering or changes/incorrect information are detected at an stage, we understand the bid will invite summarily rejection and forfeiture of bi
(j)	and complete to the best of our knowledge and belief and we have not made an 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 an stage, we understand the bid will invite summarily rejection and forfeiture of bits security, the contract will be liable to be terminated along with forfeiture of bits of the contract will be liable to be terminated.

#### FORM No. 2

#### **TENDERER'S CREDENTIALS**

S. No	Description
1.	For technical experience/competence, give details of similar completed works during the last Seven financial years (i.e. current Financial year and three previous Financial Years) in the Performa 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 Performa given in Form-2B
3.	Give constitution of your firm. Attach certified copies of legal documents in support thereof. Form-2C

#### FORM No. 2A

#### **TECHNICAL ELIGIBILITY CRITERIA DETAILS**

Details of the similar works completed (as per Para 1.3.13 (i) of Preamble and General Instruction to Tenders)

Similar Contract No.		
Contract Identification		
Award date		
Completion date		
Role in Contract	Prime Contractor	Member in JV
Total Contract Amount (Rs.)		
If member in a JV, Specify participation in total contract amount	[insert a percenta ge amount]	Total contract amount in Rs.
Total work done (Final Bill/Last Bill paid in case final bill under preparation)		
Amount of work executed having similar nature of work		
Employer's Name:		
Address:		
Telephone/Fax		
number E-Mail:		
Description of the similarity in accordance with	n Criteria 1.3.13 (i) (	A)

The Bidder shall attach Certified completion certificates issued by the client duly attested by Notary as per Eligibility Criteria of the tender documents.

Signature of the Tenderer with Seal

#### 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 received during the last three financial years and current financial year

A 10 ( ) IT D ( ) D : 0/4//				
Annual Contractual Turnover Data for the Previous 3/4 Years				
(Contractual Payment only)				
	T (Sontrastaari	dynnonic orny)	T I P NI C I	
Year	Amount Currency	Evolungo Data	Indian National	
real	Amount Currency	Exchange Rate	Rupees Equivalent	
Average Annual Contractual Turnover for last 3 years				
l .			I .	

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

SEAL AN Certified that all figures and facts submitted in this for consideration of all observations/notes in Auditor's reports	
(5	Signature of Chartered Accountant)
	Name of CA:
	Registration No:
	(Seal)

#### **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			
<ul> <li>Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above.</li> </ul>			
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

FORM No. 3

## **SUMMARY OF PRICES**

(Summary of Prices has been separately attached as per SCHEDULE uploaded at IREPS site)

FORM No. 4

# SCHEDULE OF PRICES & TOTAL PRICES Tender Schedule

(Schedule of Prices & Total Prices has been separately attached as per SCHEDULE uploaded at IREPS site)

#### **SAMPLE**

## <u>AGREEMENT</u>

#### **CONTRACT AGREEMENT**

THIS AGREEMENT ("Agreement") is made a	at Ahmedabad on theday of
BE	ETWEEN
India and having its principal place of Manager, Dedicated Freight Corrido Building, 'D' Cabin Road, Sabarn (hereinafter called "the Employer"), and corporation / JV incorporated under the	ndia Limited, incorporated under the laws of business at, Office of the Chief General or Corporation of India Limited, OCC nati, Ahmedabad-380019, Gujarat, India a company / e of business at
	or (Name of Work)
has submitted a Tender hereto and where accepted for (Name of Work) copy of the Letter of Acceptance of Tender complete with enclosure at the accepted Rs. (Rupees or consideration of the premises and the properties of the premises and the premises	at Annexure "A" here to, the Contractor eas the said Tender of the contractor has been as the said Tender of the contractor has been der No dated//2023 drates and at an estimated contract value of only). Now the agreement with witness to that in payment to be made by the Employer to the the Contractor shall supply all equipment's and rks for which the said Tender of the Contractor the various provisions in Annexure "A" and "B" on and performance to the satisfaction of the contractor at the several rates accepted as per the sions therein.
•	re to have caused their respective Common ereunto set their respective hands and seals)
For and on behalf of the Contractor	For and on behalf of the Employer
Signature of the authorized official official Name of the official	Signature of the authorized Name of the official
Stamp/seal of the Contractor	Stamp/Seal of the Employer

# SIGNED. SEALED AND DELIVERED

By the said Nan	By the said ne	_Name
On behalf of the Contractor in the presence of: Witness Name Address	On behalf of the Employer in the presence of: Witness Name Address	
Enclosures:- 1. Annexure "A" - Tender Papers N 2. Annexure "B" - Letter of Acceptance 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 Chief General Manager/DFCCIL/Ahmedabad (Designation & Address of Contract Signing Authoric Dedicated Freight Corridor Corporation of India Limited hereinafter called "DFCC having agreed under the terms and conditions of agreement/Contract Acceptabletter No	ty) <u>,</u> IL") nce
datedmade between(Designation & address of contract sign Authority) and	ıng
(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(RsOnly)	as
contractor(s) for compliance of his obligations in accordance with the terms & condition in the said agreement.	IS
<ol> <li>We (indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the Government an amount not exceeding Rs</li></ol>	
2. We(indicate the name of the bank, further agree that (ar promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the Chi General Manager/ DFCCIL/Ahmedabad or(Designation & Address contract signing authority) DFCCIL, stating that the amount claimed is due I 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 of the Bank shall be conclusive as regards the amount due and payable I the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs (Rs Only)	ef of by ne ne ne on
3 (a) We,( indicate the name of Bank ) further undertake to pay to the Government any money so demanded notwithstanding any dispute or disputational contractor (s) in any suit or proceeding pending before any contribution or Tribunal relating to liability under this present being absolute and unequivocation.	te ırt

#### Ten

	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(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) Not withstanding 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
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

writing.

revoke this guarantee except with the previous consent of the Government in

	o. DFC_ADI_ENG_OI This guarantee shall l beyond that).Unless anything to the contr guarantee is re guarantee is Made discharged from our	be valid upto extended or rary contained estricted to Re on us in wri	n demand by herein before, sOnly ting on or be	Goveri our Liat ) unless fore	nment. Notw bility under s a demand w	vithstanding this under this
Dated bank)	the day of		F	or	(Indicate	the name of
				ature of I (Name Designa Full Add	ation:	ze official
Witnes	SS:					

# SAMPLE STANDING INDEMNITY BOND FOR "ON ACCOUNT" PAYMENTS

#### (On paper of requisite stamp value)

(on popular or and anomaly among
We, M/shereby 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 Chief General Manager/ DFCCIL/Ahmedabad 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 sectionDFCCIL also referred to as Group/svide letter of Acceptance of Tenderdatedand 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 against all 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 whatsoever 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 Chief General Manager/DFCCIL/Ahmedabad 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 hereafter becomes due to us under the said or any other Contract.
Dated this dayday of2023 For and on behalf of M/s(Contractor) Signature of witness Name of witness in Block letter.
Address.

FORM No. 8

#### **ECS / NEFT / RTGS MANDATE FORM**

Date:- To,

Dy.CPM/PM/Finance DFCCIL/Ahmedabad

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	
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	
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 (IF APPLICABLE)

	having its registered office at (Hereinafter referred to) in the capacity of a Joint Partner of the other part.
M/s	having its registered office at (Hereinafter rred to as `") in the capacity of a Joint Partner of the other part.
inclu	expressions of
Dedi	REAS: cated Freight Corridor Corporation of India Limited (DFCCIL) [hereinafter referred to as nt"] has invited bids for"[Insert name of work]"
<b>NOW</b> 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 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
4. Tł	ne `Parties" have resolved that the distribution of responsibilities and their proportionate

(a) Lead Partner;

share in the Joint Venture is as under:

(i)
(ii)
(iii)
(b) Joint Venture Partner
(i)
(ii)
(iii)
[Similar details to be given for each partner]

[Similar details to be given for each partner]

#### 5. JOINT AND SEVERAL RESPONSIBILITIES

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, manpower and other resources.

#### 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.
- 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)	(Seal)	
Witness 1(Name & Address) 2(Name & Address)		

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

#### FORM No. 10

#### 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
- 14. Liability and sharing of risks
- 15.Insurance
- 16. Sharing of Promotion and Project Costs, Profits, Losses and Remuneration
- 17. Financial Administration and Accounting
- 18. Guarantees and Bonds
- 19.Arbitration
- 20.Notices
- 21. 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

\*\*\*\*

# PRO-FORMA 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:		
	•••••	
Dedic Limite	General Manager, cated Freight Corridor Corporation of India ed, OCC Building, 'D' Cabin Road, Sabarmati, edabad-380019, Gujarat.	
Re:	."[Insert name of work]	
	our notice for Invitation for Bid (IFB) No	
1.	We wish to confirm that our company/firm has for (i)	rmed a Joint Venture with ses associated with IFB
(Mem	bers who are not the lead partner of the JV should add	the following paragraph)*.
2.	"The JV is led by whom we hereby authorise to purposes of submission of Bid for and authorise to receive instructions for and on behalf of any and all of the Joint Venture."	orise to incur liabilities and
	OR	
(Mem	ber(s) being the lead member of the group should add	the following paragraph)*
2. 3.	"In this group we act as leader and, for the purpose represent the Joint Venture: In the event of our JV being awarded the contract, we ii) (names of other members of our JV) and	e agree to be jointly with i) &

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.

Company Seal	* Delete as applicable
Signatory)	
(Capacity of	
(Name of Signatory)	
(Signature)	
Yours faithfully,	

Note: In case of existing joint venture, the certified copy of JV Agreement may be 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)

authorise	e Mr/Ms who is presently employ	do hereby constitute, appoint and red with us and holding the position of	
things r of all docu Corporat Freight (	necessary in connection with or ments and providing information / re tion of India Limited, representing us	on our behalf, all such acts, deeds and incidental to our bid for the work Including signing and submission of esponses to Dedicated Freight Corridor in all matters, dealing with Dedicated n all matters in connection with our bid	
pursuant		things lawfully done by our said attorney all acts, deeds and things done by our emed to have been done by us.	
Dated th	is the day of 2023.		
(Signat	ure of authorised Signatory)		
Signatur	e of Lead Partner	Signature of JV Partner(s)	
Witness	(Signature and Name in Block Seal of Comp	· · · · · · · · · · · · · · · · · · ·	
Witness	Witness 1:	Witness 2:	
	Name: Address:	Name: Address:	
	Occupation:	Occupation:	
*Notes: i)	To be executed by all the partners jointly,	in case of a Joint Venture.	

FORM No. 13

of

#### 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/documents and 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.

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.

<sup>\*</sup>To be executed by all the members of the JV except the lead member.

#### Tender No. DFC\_ADI\_ENG\_ORH\_OCC

We hereby agree to ratify all acts, deeds and things lawfully done 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 2023	
(Signature)	
(Name in Block letters of Ex- Company	ecutants) Seal of
Witness 1	
Name:	
Address:	
Occupation:	
Witness 2	
Name:	
Address:	
Occupation	

#### FORM No. 14

Reference para 17B Registered Acknowledgement Due

#### PROFORMA FOR TIME EXTENSION

No	Dated:
Sub:	(i)(name of work).
	(ii) Acceptance letter no
	ved)
Dear 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 fromto
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. 5.	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.  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 up to 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

#### FORM No. 15

CERTIFICATE OF F  1. (a) Serial Number	ITNESS
(b) Date	
2. Name of person examined	
3. Father's Name: son/daughter of Residing at	,
4. Sex	
5. Residence:	
6. Physical fitness	
7. Identification marks	
8. Date of birth, if available, and/or certified age	
I certify that I have personally examined (name) employed in a factory or on a work requiring manual la can be ascertained from my examination, is ye	abour and that his/her age as nearly as
I certify that he/she is fit for employment in a factory of an adult/child.	on a work requiring manual labour as
9. Reasons for : (a) Refusal to grant certificate, or (b) Revoking the certificate	
	Signature or left hand
Т	numb impression of the person examined.
	Signature of Certifying Surgeon
Note: In case of physical disability, the exact details are be clearly stated.	nd cause of the physical disability should

# **FORM No. 16** Registered Acknowledgement Due

# PROFORMA OF 7 DAYS NOTICE DFCCIL

_	(Without Prejudice)
То	M/s
Dear	Sir,
	Contract Agreement NoIn 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 program me for completing the work.
2.	Your attention is invited to this office/Chief Engineer's office letter no, datedin 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

FORM No. 17

Registered Acknowledgement Due

# PROFORMA OF 48 HRS. NOTICE DFCCIL

(Without Prejudice)

То	(Without Frejudioe)
	M/s
Dea	ar 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 encased and consequences which may please be noted.
Kin	dly acknowledge receipt.
	Yours faithfully
	For and on behalf of the Employer Name of the Official:- Stamp/Seal of the Employer

# **FORM No. 18** Registered Acknowledgement Due

## PROFORMA OF TERMINATION NOTICE DFCCIL

(Without Prejudice)

No	Dated
To M/s	-
Dear Sir,	_
Contract Agreement NoIn connection with	
Forty eight hours (48 hrs.) notice was giver Dated; but you have to adequate progress of the work.	n to you under this office letter of even no. aken no action to commence the work/show
rescinded in terms of Clause 62 of Sta balance work under this contract will participation. Your participation as well as manner as an individual or a partnership	as already expired, the above contract stands ndard General Conditions of Contract and the I be carried out independently without yours participation of every member/partner in any firm/JV is hereby debarred from participation in rk and your Security Deposit shall be forfeited encased.
Kindly acknowledge receipt.	
	Yours faithfully
	For and on behalf of the Employer Name of the Official:- Stamp/Seal of the Employer

## SAMPLE FORMAT OF BANK GUARANTEE FOR MOBILISATION ADVANCE

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

Bank guarantee made on this
WHEREAS Dedicated Freight Corridor Corporation of India Limited has awarded the Contract no
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) 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 fulfil 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.

of the Bank or of the contractor.

The Guarantee hereinbefore contained shall not be affected by any change in the constitution

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 Rs...../exceed (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 the ...... Day of ...... Being herewith duly authorized. For and on behalf of the Bank of..... Signature of Authorized Bank Official Name Designation

The neglect or forbearance of the Employer in enforcement of payment of any money, the

Signed, sealed and delivered for and on Behalf of the bank by the above named

Stamp/Seal of the bank

.....

.....

#### PRE CONTRACT INTEGRITY PACT

#### <u>General</u>

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/DFCCIL.

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

1.1 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].

- 1.2 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.
- 1.3 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) in 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 committee 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 disfavour to any person in relation to the [B] or any other [B] with the Government.

- \* [A] shall disclose the name and address of agents and representatives and Indian [A] shall disclose their foreign principals or associates.
- \* [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 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.

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 ender process or the contact, if already awarded, can be terminated for such reason.
- 5. Earnest Money (Security Deposit)
- 5.1 While submitting commercial bid, the [A] shall deposit an amount \_\_\_ (to be specified in RFP) as Earnest Money/Security Deposit, with the CLIENT through any of the following instruments:
  - i. Bank draft or a pay order in favour of .
  - ii. A confirmed guarantee by an Indian nationalized bank, promising payment of the guaranteed sum to the CLIENT on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the CLIENT shall be treated as conclusive proof or payment.
  - iii. Any other mode or through any other instrument (to be specified in the RFP).
- 5.2 The earnest money/Security deposit shall be valid up to a period of five years or the contractual obligations to the complete satisfaction of both

the BIDDER and the CLIENT, including warranty period, whichever is later.

- 5.3 In case of the successful [A] a clause would also be incorporated in the article pertaining to performance Guarantee in the [B] that the provisions of sanctions for violation shall be applicable for forfeiture of performance bond in case of a decision by client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- No interest shall be payable by CLIENT to the [A] on earnest Money/Security Deposit for the period of its currency.
  - 6. Sanctions for Violations
- 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 that 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 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 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 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
  - 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.

9.1 Law and Place of Jurisdiction

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

10. 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.

- 10.1 Validity
- 10.2 The validity of this integrity pact shall be from date of its signing and extend up to 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].
- 10.3 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

	to an agreement to their original intentions. n this integrity pact at
CLIENT Name of the Officer OFFICER Designation Deptt./Ministry/PSU	BIDDER CHIEF EXECUCTIVE
Witness 1	Witness 1
2	2
Note: [A] - To be replaced by BID as the case was may be.	DER/Seller/Consultant/Consultancy firm/Service provider

- [B] To be replaced by Contract/Supply Contract/Consultancy Contract/Works Contract as the case was may be.

#### **ANTI-PROFITEERING DECLARATION**

#### **TO WHOMSOEVER IT MAY CONCERN**

	I, age, years, Son/Daughter of, resident of
1)	That I am the <designation authorized="" of="" signatory="" the=""> of</designation>
	(Name of the company).
2)	That
3)	That the Company is fully aware of the anti-profiteering provision under the Goods & Services Tax ("GST") Law(s),
4)	That the Company
5)	Further, it is to confirm also that in case (name of the organization) will receive any further benefit in future after 1 <sup>st</sup> July, 2017 by way of availment of input tax credits which were not allowed to be availed before 1 <sup>st</sup> July, 201 <b>7</b> or reduction in tax rates or in any other manner which results in reduction of cost of

Tender No. DFC\_ADI\_ENG\_ORH\_OCC

the goods/services supplied to M/s Dedicated Freight Corridor Corporation of India

Limited, then Company will pass that benefit to M/s Dedicated Freight Corridor

Corporation of India Limited also.

6) That I declare that the foregoing is true and correct and the same is a legal

obligation and failure to fulfil it could result in penalties under the law.

7) I confirm that I am aware of the implication of the above undertaking and our

liability on account of incorrect/misleading declaration under the GST Laws.

Signature of the Authorized signatory/ person

Name and Designation of the Auth. Sign/person of the person

Name of the Organization and Seal

Executed on a non-judicial stamp paper of Rs.300/- duly notarized by notary public

# FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS

I		(Nam	ne	and	designa	ation)**	appo	inted	as	the	
attorney/aut	horize	d signa	atory of the t	ende	rer (ir	ncluding it	ts constit	tuents),			
tenderer)	for	the	purpose	of	the	Tender	docur	nents	for	the	the work
			o						-		*, do
hereby sole	emnly	affirm a	and state or	n th	e beh	alf of the	tendere	r includi	ng its	constit	uents

- 1. I/we the tenderer (s) am/are signing this document after carefully reading the contents.
- 2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
- 3. I/we hereby declare that I/we have downloaded the tender documents from Indian Railway website <a href="https://www.ireps.gov.in">www.ireps.gov.in</a>
- . I/we have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the railway Administration shall be final and binding upon me/us.
- 4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
- 5. I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
- 6. I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
- 7. I/we certify that I/we the tenderer(s) is/are not blacklisted or debarred by Railways or any other Ministry /Department of Govt. of India from participation in tender on the date of

submission of bids, either in individual capacity or as a HUF/ member of the partnership

firm/LLP/N/Society/Trust.

8. I/we understand that if the contents of the certificate submitted by us are found to be

forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to

forfeiture of the Bid Security besides banning of business for a, period of upto five year.

Further, I/we (insert name of the tenderer) \*\* \_\_\_\_\_ and all my/our constituents

understand that my/our offer shall be summarily rejected.

9. I/we also understand that if the contents of the certificate submitted by us are found to be

false/forged or incorrect at any time after the award of the contract, it will lead to termination

of the contract, along with forfeiture of Bid Security/Security Deposit and Performance

guarantee besides any other action provided in the contract including banning of business

for a period of upto five year.

10. I/We have read the clause regarding restriction on procurement from a bidder of a

country which shares a land border with India and certify that I am/We are not from such a

country or,

if from such a country, have been registered with the competent Authority. I/We hereby

certify that I/we fulfil all the requirements, in this regard and am/are eligible to be considered

( evidence of valid registration by the competent authority is enclosed)

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.

This certificate is to be given by each member of JV or Partners of Partnership

firm/LLP/etc.

## TENDERER'S CREDENTIALS (BID CAPACITY) DFCCIL

For tenders having advertised value more than Rs 20 crore wherein eligibility criteria includes bid capacity also, the tenderer will be qualified only if its available bid capacity is equal to or more than the total value of the present tender. The available bid capacity shall be calculated as under: Available Bid Capacity =  $[A \times N \times 2] - 0.33 \times N \times B$  Where,

- A = Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender), taking into account the completed as well as works in progress.
- N= Number of years prescribed for completion of work for which bids has been invited.
- B = Existing commitments and balance amount of ongoing works with the tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender.

#### Note:

- (a) The Tenderer(s) shall furnish the details of -
  - Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and
  - (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

- (b) In case if a bidder is JV, the tenderer(s) must furnish the details of
  - (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and
  - (ii) Existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

- (c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.
- (d) The arithmetic sum of individual "bid capacity" of all the members shall be taken as JV's "bid capacity".
- (e) In case, the tenderer/s failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.
- (f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

#### Statement of Works in Progress for Bid Capacity

Form No. 23A

S.	Name	Organization	Date of	Original Cost	Date of	Payment	Balance	B "value
N	and	for whom	award of	of	Completion	Received	amount	of work
	place	work is	contract.	Work/Revised	(Origin al/	till	of the	to be
	of	being carried	Contract	Cost (Up to	Extended)	date of	work to	done in
	work	out	Agreement	latest		opening	be	"N"
			No. &	corrigendum)		of	executed	years
			Date			present		
						tender		

Note:-

1. Available Bid Capacity =  $[A \times N \times 2] - B$ 

Where

A= Maximum value of construction works executed and payment received in any one financial year during the current and last three financial years immediately preceding the current financial year, upto date of opening of tender, taking into account the completed as well as works in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

- B = Value of existing commitments and balance amount of ongoing works with the tenderer to be completed in next "N" years.
- 2. This statement should be submitted duly verified by Chartered Accountants.

#### FINAL SUPPLEMENTARY AGREEMENT

1.	Articles of agreement made this day _ in the year between the President of 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 performanceherein after called the "Principal Agreement".
3.	And whereas it was agreed by and between the parties hereto that the works would be completed by the party hereto of the second part on_date last extended and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part.
1.	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 Rsincluding the Final Bill bearing voucher No dated of value duly 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 have received sum of RsThrough the Final Bill bearing voucher Nodatedduly adjusted as per price variation clause (PVC), if applicable (the receipt of which is hereby acknowledged by the party thereto of the second part) from 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)

Agreement tov	<i>l</i> ards wai	ver under Section 12(5) Conciliation (Amen	•	(5) of Arbitra	tion and
disputes as to tl	he constru	ency/Contractor) with re- iction and operation of rtificate and demand arbi	ference to agreeme this contract, or the	e respective r	ights and
Brief of claim: (i) Claim 1- Detai (ii) Claim 2 – (iii) Claim 3 –	iled at Ann	exure-			
as to the constr	uction and	ineer) with reference to l operation of this contra ld demand arbitration in l	act, or the respecti	ve rights and	
I/wedo/do Conciliation (Am	_	e to waive off applica Act.	bility of section 12	2(5) of Arbitra	ation and
Signature of	Claima	nt	Signature	e of Re	espondent
		Agreement under S	ection 31(5)		
applicability of su Act. We further a	ub section agree that	nt) with reference to agr 31-A (2) to 31-A (4) of the the cost of arbitration we eral Conditions of Contra	ne Arbitration and Covill be shared by the	onciliation (An	nendment
Signature Respondent	of	Claimant		Signature	of
*Strike out which	ever not a	pplicable.			

#### (Bid Security)

Bank Guarantee Bond from any scheduled commercial bank of India (On non-judicial stamp paper, which should be in the name of the Executing Bank)

Name of the Bank: MD DFCCIL Acting through Chief General Manager, DFCCIL, Ahmedabad Beneficiary: Dedicated Fright Corridor Corporation of India Limited, Ahmedabad Date:	I
Bank Guarantee Bond No.:	Date:
In consideration of the MD DFCCIL acting through Chief General Man Ahmedabad (Designation & address of Contract Signing Authority),	DFCCIL, ed the bid Ve have been I "the Bidder")
AND	
WHEREAS,[Insert Name of the Bank], with its Branch[In having its Headquarters office at [Insert Address], hereinafter called the through	e Bank, acting of the Bank],

- KNOW ALL MEN that by these present that I/We the undersigned [Insert name(s) of authorized representatives of the Bank], being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway/DFCCIL full amount in the sum of [Insert required Value of Bid Security] as above stated.
- 2. The Bank undertakes to immediately pay on presentation of demand by the Railway/DFCCIL any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway/DFCCIL on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.
- 3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway/DFCCIL without any reference to the Bidder and without the Railway/DFCCIL being required to show grounds or give reasons for its demand of the amount so demanded.

contained, in favour of the Railway:

- 4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
- 5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway/DFCCIL and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway/DFCCIL at any time.
- 6. This guarantee will remain valid and effective from..........[insert date of issue] till ...........[insert date, which should be minimum 90 days beyond the expiry of validity of Bid]. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
- 7. The Bank Guarantee is unconditional and irrevocable.
- 8. The expressions Bank and Railway/DFCCIL herein before used shall include their respective successors and assigns.
- 9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway/DFCCIL. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
- 10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

IFSC CODE	UBIN0546836
IFSC TYPE	BRANCH
BANK NAME	Union Bank of India
BRANCH NAME	Motibagh-1, Delhi Branch
CITY NAME	New Delhi
ADDRESS	Palika Bhawan, Motibagh-I, R.K. Puram, Delhi-110066
DISTRICT	New Delhi
STATE	New Delhi
BG ENABLED	YES

П	The Guarantee s	shall be vall	d in additi	on to	and without	prejudic	e to ai	ny othei	secu	ırıty
	Guarantee(s) of	Bidder in	favour c	f the	Railway/DF	CCIL.	The B	ank, ur	nder	this
	Guarantee, shall	be deemed	as Princip	al Deb	tor of the Ra	ailway.				
	Date									

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters] ......

[Designation with Code No.].....

[P/Attorney] No.

Witness:

1 Signature, Name & Address & Seal

2 Signature, Name& address & Seal

Bank's Seal [P/Attorney] No.

Note: All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.

#### Form No. 27 A

(Reference Clause 40(A)

Registered Acknowledgement Due

# PROFORMA OF 14 DAYS NOTICE FOR OFFLOADING OF PART OF CONTRACT WORK DFCCIL RAILWAY

(Without Prejudice)

(Without Prejudice)
То
M/s
Dear Sir,
Contract Agreement No
In connection with
In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no, dated; you have failed to show adequate progress of work so as to complete the contract within the original / extended date of completion of contract and part(s) of contract work are yet to be started/ still lagging behind the agreed program of work, listed as under:
(Details of part(s) of work which is delayed and can be executed independently, to be mentioned).
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 14 days' notice in accordance with Clause 40A of the Standard General Conditions of Contract to deploy adequate resources i.e. (the details of resource requirement, to be mentioned) and commence / to make good the progress for part(s) of works detailed above, failing which action as provided in Clause 40A of the Standard General Conditions of Contract shall be commenced after expiry of 14 days' notice period viz. to offload few/ all part(s) of work mentioned above to any of the existing or new contractor without your participation and at your Risk & Cost, not exceeding the value of Performance Guarantee of this contract, which may please be noted.
Kindly acknowledge receipt.
Yours faithfully
For and on behalf of the DFCCIL

Form No. 27 B (Reference Clause 40(A) Registered Acknowledgement Due

# NOTICE FOR PART OF CONTRACT WORK OFFLOADED DFCCIL RAILWAY

(Without Prejudice)

To M/s
Dear Sir,  Contract Agreement No. In connection with
1. Fourteen days notice under Clause 40A of the Standard General Conditions of Contract was given to you under this office letter of even no., dated; but you have taken no/inadequate action to deploy adequate resources to commence the part(s) of work/show adequate progress of the part(s) of work, mentioned therein.
As you have failed to abide by the instructions issued to commence the part(s) of work/show adequate progress of the part(s) of work even at the lapse of 14 days' notice period under Clause 40A of the Standard General Conditions of Contract, few part(s) of the work under the contract have been offloaded and being executed by other mode(s) at the cost detailed below:  Or,
1. Please refer your request letter no dated, wherein it was requested under clause 40 A of the Standard General Conditions of Contract to offload part(s) of works at your risk & cost. The details of part(s) of the work under the contract which have been offloaded and being executed by other mode(s) at the cost detailed below:  (List of Part(s) of work offloaded, Details of mode of execution of such offloaded work
alongwith approximate cost thereof to be mentioned)  2. The final measurement of work(s) already executed for above part(s) of work recorded as per clause 45 (A) or/and 45 (B) of the Standard General Conditions of Contract is enclosed herewith.
3. The Bill(s) of Quantities for Part(s) of work offloaded is enclosed herewith.  4. The additional cost in execution of offloaded work through mode(s) mentioned in para (1) above is determined as Rs, over& above the cost of execution under this contract (including the PVC amount payable as per contract, as on the date of issue of this notice). This additional cost shall be recovered from your next on account bill(s) or any other dues payable to you under contract.  5. The Contract value gets reduced to Rs
6. You are requested to continue with the balance work in the contract subsequent to offloading of above part(s) of work.  Kindly acknowledge receipt.
Yours faithfully For and on behalf of the DFCCIL

#### **MOU- ELECTRICAL WORK**

	(T	o be executed on non-ju	dicial stamp paper o	of the appropriate v	alue)	
(Name of t	enderer wit	Inderstanding (M.O.) h address)		······································	······	••
AND	•	•••••••••••	••••••	••••••	••••••	••••••
		Electrical				
This indent	ure witnesse	d as follows:				
`		derer)		-	ence in Civil	work like as
	Name of Ele in Electrical	ctrical License hold works.	er party)		contained	considerable
		neral Manager, Ahn		·		`
to from conto (Name tenderer)	of tendere	se to above tender in ubmit competitive be or) will act as will	id & execute this by DFO the prime bidder participate as	work in the even CCIL, the inten and <b>(Name of I</b>	t of award o d being tha E <b>lectrical L</b> i	f this contract at (Name of icense holder
during tend	lering and no	e of present underst egotiation phase and ually agreed upon be	also during the p	hase of execution		
course of ti	me incorpor	ree to convert this mating the details of tee as follows:				
		that of temporary we cution of work as per				
Signature o party) with Place: Date:	f (tenderer) n seal		Signature	of (Electrical L with seal)	icense hold	er

## **PART V**

## **DRAWINGS**

Tender No. DFC_ADI_ENG_ORH_OCC				
DRAWINGS				
The drawing of ORH is attached on IREPS site.				

 $Tender\ No.\ DFC\_ADI\_ENG\_ORH\_OCC$ 

# **END OF DOCUMENT**

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