

Dedicated Freight Corridor Corporation of India Limited
(A Government of India Enterprise)

REQUEST FOR PROPSOAL DOCUMENT

(RFP Document No.: HQ/EN/WC/BRIDGES/PMC/1)

FOR ENGAGING

PROJECT MANAGEMENT CONSULTANT FOR
Design and Construction of Important & Major Bridges (54 nos.) of Western Freight
Corridor between Vaitarna and Utran (Approx. 200 KMs) on
Vasai-Bharuch section in the states of
Maharashtra and Gujarat, India.

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DISCLAIMER

1. Though adequate care has been taken in the preparation of this Request for Proposal (RFP) Document, the Consultancy Company (bidder) submitting proposal in response to this RFP shall satisfy itself that the Document is complete in all respects. Intimation of discrepancy, if any, shall be given to the office of designated official immediately and not later than 13th October, 2008. If no intimation is received by the office of designated official, it shall be deemed that the RFP Document is complete in all respects and the bidder is satisfied that the RFP Document is complete in all respect.
2. Neither Dedicated Freight Corridor Corporation of India Limited (DFCC) nor their employees make any representation or warranty as to the accuracy, reliability or completeness of the information in this RFP Document and it is not possible for DFCC to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP Document. Certain prospective Consultancy Companies may have a better knowledge of the Assignment than others. Each prospective bidder shall conduct their own investigations and analysis and check the accuracy, reliability and completeness of the information in this RFP Document and obtain independent advice from appropriate sources.
3. Neither DFCC nor their employees will have any liability to any prospective Consultancy Company or any other person under the law of contract, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this RFP Document, any matter deemed to form part of this RFP Document, the award of the Assignment, the information and any other information supplied by or on behalf of DFCC or their employees, any consultants or otherwise arising in any way from the selection process for the Assignment.
4. DFCC reserves the right to reject any or all the Proposals submitted in response to this RFP Document at any stage without assigning any reasons whatsoever. DFCC also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the Proposal.
5. DFCC reserves the right to change / modify / amend any or all of the provisions of this RFP Document. Bidders will be informed about such changes through e-mail / fax/post.

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ABBREVIATIONS

DFC	Dedicated Freight Corridor
DFCC	Dedicated Freight Corridor Corporation of India Limited (A Government of India Enterprises).
PMC	Project Management Consultant
GCC	General Conditions of Contract for Consultancy Contract
INR, Indian Rs.	Indian Rupees (Indian Currency)
JV	Joint Venture
LS	Lump Sum
MMD	Maximum Moving Dimensions
MOU	Memorandum of Understanding
MOR	Ministry of Railways
PLR	Prime Lending Rate
CQCCBS	Combined Quality cum Cost – Based System
RFP	Request for Proposal
SOD	Schedule of Dimensions
SCC	Special Conditions of Contract
SBI	State Bank of India
TOR	Terms of Reference.
IE	Inspection Engineer
CV	Curriculum Vitae
GAD	General Arrangement Drawing

Dedicated Freight Corridor Corporation of India Ltd.
(A Government of India Enterprise)

INVITATIONS FOR BIDS (IFB)
NATIONAL COMPETITIVE BIDDING

Bid Notice No HQ/EN/WC/BRIDGES/PMC/1

DATE: 01.10.08

Ministry of Railways, Government of India have planned to construct Dedicated Freight Corridor (DFC) covering about 2762 route kms along two alignments, Eastern Corridor from Ludhiana to Sonenagar/ Dankuni and Western Corridor from Jawaharlal Nehru Port, Mumbai to Tughlakabad/ Dadri along with inter-linking of two corridors at Khurja. The Project entails construction of mostly double track railway lines capable of handling 32.5 tonne axle load, longer trains and also double stack container trains. Dedicated Freight Corridor Corporation of India Limited (DFCC) is a Government of India Enterprise setup for implementation of the DFC Project. Dedicated freight Corridor Corporation of India Limited, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi – 110001 invites bids (one stage two packet system) for Project Management Consultancy for the work of Construction of major/important bridges between Vaitarna and Utran on Western Freight Corridor from the experienced Consultancy Firms having relevant experience and fulfilling other eligibility and qualification criteria.

Name of Work	Bid security in Rs.	Period of completion	Bid Validity
Project Management Consultancy for Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .	8,00,000/- (Eight Lakhs)	3 ½ Years	90 Days

- 2 The Project Management Consultancy is for the supervision of the work of construction of major and Important Concrete bridges (54 nos) between Vaitarna and Utran on Western Corridor envisaged to be executed under a Design & Build Contract. The bridges shall be for double track. Vaitarna to Utran section falls between Mumbai Central and Vadodara Main Line of Western Railway.
- 3 The bid documents shall be available for sale at the office of the GGM/Engg/I, DFCC, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi - 110001 from 06.10.08 during 11.00 hrs. to 17.00 hrs on working days and can be purchased by interested bidders on submission of a written request to the address given above along with payment of **Rs. 10,000/- (Rs Ten Thousand Only)** (non-refundable) in the form of DD or Banker's cheque from any Nationalised or Scheduled Bank of India in favour of Dedicated Freight Corridor Corporation of India Ltd, New Delhi.

- 4 Bidding documents requested by Post will be dispatched by registered speed post/courier on payment of an extra amount of **Rs. 1000/- (Rupees One Thousand only)**.
- 5 Bidding Documents can also be downloaded from DFCC website **www.dfcc.in** and **www.dfccil.org** from 03.10.08. The bids can be submitted on the downloaded document along with demand draft towards the cost of bidding documents kept in a separate envelope marked "Cost of Bidding Documents". The offer will be summarily rejected if cost of bidding documents is not enclosed for bids downloaded from web site.
- 6 It will be the responsibility of the bidder who is submitting the bid on downloaded bidding documents to check the correctness of these documents and also check the DFCC website from time to time till bid due date for any addendum/Corrigendum issued in regard to this bid to ensure submission of bid along with all addendum/Corrigendum.
7. **Eligibility and Qualification Criteria:**
Proposals of those bidders who satisfy the following Eligibility Criteria shall be considered for further evaluation of the Proposal.

A bidder may bid as a single entity or as a Joint Venture (JV) having maximum two members (including lead member). The bidder (each member in case of JV) should have authority to do business in India as per Indian Laws. **Bidders in their individual capacity or JV shall not be associated with providing any services to the contractors appointed for executing the Works which form a part of the Works Contract under this project. No member on the Board of Directors of the Bidders shall be on the Board of Directors of the contractors appointed for executing the Works which form a part of the Works Contracts under this project.** The **Minimum Eligibility Criteria** to be satisfied by the bidders has been given below.

7.1 **Financial** – The Single bidder or Lead Member of Joint Venture[§]–

- (a) shall have received average annual payment against Consultancy works (**design, proof checking, Project Management Consultancy or as Independent Engineer**) on **Infrastructure Projects comprising Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works) of at least Rs. 4 Crore** covering past three financial years i.e.2005 -06, 2006-07, 2007-08, and
- (b) Deleted

7.2 **Technical** – A Single bidder or lead member of a Joint Venture[§] shall have following technical qualifications:

Shall have experience of Project Management Consultancy and Detailed Design Consultancy on Infrastructure Projects comprising Construction of **Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and**

Bridge works) and must have successfully completed /substantially * completed during last 3 (three) years (2005-06 to 2007-08) and upto application submission date at least:

One PMC assignments of value not less than Rs 3 Crore on infrastructure works comprising Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works)

And

Two PMC assignments of value not less than Rs 75 Lakhs each on projects involving construction of Bridges/ Flyovers with Prestressed concrete superstructure.

And

One Detailed Design Consultancy assignment or proof checking of Detailed Design exclusively of Bridges/Flyovers with Prestressed Concrete Superstructure of Rs. 20 Lakhs or more. (Preparation of DPR of Highway Project shall not be considered under this category).

Note :

- i) * Substantially completed work would be one in which 80 % satisfactorily completion has been done and the value of such completed portion shall be not less than as specified in 8 (ii) above.*
- ii) The work shall be certified by the client for whom these works have been done/are being done which should be a Government Department, a Public Sector Undertaking or a Public Limited company.*
- iii) § In case of an existing JV as bidder, the Technical and Financial criteria may be satisfied by the JV or its lead member.*
- iv) In case of payments received in foreign currency, currency conversion rate as on the date of last day bid submission shall be taken for converting the amount in Indian Rs.*
- v) Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:*
 - made misleading or false representations in the forms, statements and attachments submitted in proof or the qualification requirements; and/or*
 - record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.*

8 Bids shall be submitted to the GGM/Engg/I, DFCC, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi - 110001 during office working hours on any working day on or after 24.10.08 but not later than 15.00 hrs of 06.11.08.

8.1 Bids shall remain valid for a period of 90 days from the date of submission of bid.

- 8.2 Right to reject any or all bid(s) without assigning any reason thereof is reserved with DFCC.
- 8.3 The bids shall be opened on the same day at **15:30 hrs.**
- 8.4 Bids must be accompanied by a bid security of **Rs 8 Lakhs (Rupees eight lakhs only)** in any one of the forms as specified in the bidding documents and shall have to be valid for **120 days** from the date of submission of the Bid.
- 8.5 Bids received late will be summarily rejected.
- 9 Pre- Bid meeting will be held on 15.10.08 at **11.00 hrs** in **Dedicated Freight Corridor Corporation of India limited, Conference Room, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi - 110001, India.**
- 9.1 Authorised Representatives of only those bidders would be permitted to attend the Pre-bid meeting who have purchased the tender document or deposited the cost of bidding document in the form of Demand Draft or Banker's cheque in favour of DFCC on the day of pre-bid meeting before start of the meeting.
- 9.2 The prospective bidders are required to send following details to DFCC through email or fax (contact details given at para 10 below)-
- i. Name and address of firm/bidder
 - ii. Contact details of the bidder (telephone, email, fax, etc.)
 - iii. Name(s) of the person(s) attending the pre-bid meeting
 - iv. Details of purchase of bid documents
 - v. Clarifications required during the meeting

Above details shall be sent positively by 13.10.08.

- 10 **Address for Communication:**
Interested eligible Bidders may obtain further information from the designated official:-

**Shri S.K. Raina, Group General Manager Engg. (I),
Dedicated Freight Corridor Corporation of India Limited,
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001, India. Telefax (011)24100779, (011)23370602
E – Mail: ggm.engg1@dfcc.in**

Date: 01.10.2008
Place: New Delhi

Section 1

INSTRUCTIONS TO BIDDERS

Section 1

Instructions to Bidders

1. **General:**

Ministry of Railways, Government of India have planned to construct Dedicated Freight Corridor (DFC) covering about 2,762,route kms on two corridors, Eastern Corridor from Ludhiana to Sonenagar / Dankuni and Western Corridor from Jawaharlal Nehru Port, Mumbai to Tughlakabad / Dadri along with inter-linking of the two corridors at Khurja. The project entails construction of mostly double-line railway track capable of handling 32.5 tonnes axle load, longer trains and also double-stack containers. Dedicated Fright Corridor Corporation of India Limited (DFCC) is a Government of India Enterprise setup for implementation of the DFC Project.
2. DFCC intends to engage Project Management Consultant (**hereinafter referred as “PMC”**) to obtain Project Management Consultancy Services (**hereinafter referred as the “services”**) for the work of construction of Important and major Concrete bridges (54 nos) between Vaitarna and Utran on Western Corridor envisaged to be executed under a Design and Build Works Contract.
3. **DFCC invites bids consisting of Technical and Financial Proposal for engagement as Project Management Consultant under one stage two packet system. The selection of Consultant shall be based on CQCCBS (Combined Quality cum Cost – Based System).** This Request for Proposal (RFP) document for engaging PMC describes the role of Project Management Consultant / scope of the consultancy services, terms and conditions, institutional arrangements, project information, formats for submitting technical proposal and financial proposals, General Conditions of Contract and Special Conditions of Contract. DFCC reserves the right to change/ modify/ amend any or all of the provisions of this RFP Document. Bidders will be informed about such changes through e-mail / fax/ post.
4. Salient features of this RFP document are given in the data sheet given in **Section 2.**
5. **Institutional Arrangements**

Institutional Arrangements for the project are given in **Section 3.**
6. **Project Information**

The information about the project is given in **Section 4.**
7. **Scope of Work**

The role of PMC and scope of work for the consultancy services is given in Terms of Reference (TOR) given in **Section 5** of this document. The bidder shall include his suggestions on the TOR in his technical proposal. DFCC will take decision on any additional items, if required, during negotiation of contract.

8. Eligibility and Qualification Criteria:

Proposals of those bidders who satisfy the following Eligibility Criteria shall be considered for further evaluation of the Proposal.

A bidder may bid as a single entity or as a Joint Venture (JV) having maximum two members (including lead member). The bidder (each member in case of JV) should have authority to do business in India as per Indian Laws. **Bidders in their individual capacity or JV shall not be associated with providing any services to the contractors appointed for executing the Works which form a part of the Works Contract under this project. No member on the Board of Directors of the Bidders shall be on the Board of Directors of the contractors appointed for executing the Works which form a part of the Works Contracts under this project.** The **Minimum Eligibility Criteria** to be satisfied by the bidders has been given below.

(i) **Financial** – The Single bidder or Lead Member of Joint Venture[§]–

(a) shall have received average annual payment against Consultancy works (**design, proof checking, Project Management Consultancy or as Independent Engineer**) on **Infrastructure Projects comprising Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works)** of at least **Rs. 4 Crore** covering past three financial years i.e.2005 -06, 2006-07, 2007-08, and

(b) Deleted

(ii) **Technical** – A Single bidder or lead member of a Joint Venture[§] shall have following technical qualifications:

Shall have experience of Project Management Consultancy and Detailed Design Consultancy on Infrastructure Projects comprising Construction of **Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works)** and must have successfully completed /substantially * completed during last 3 (three) years (2005-06 to 2007-08) and upto application submission date at least:

One PMC assignments of value not less than Rs 3 Crore on infrastructure works comprising Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works)

And

Two PMC assignments of value not less than Rs 75 Lakhs each on projects involving construction of Bridges/ Flyovers with Prestressed concrete superstructure.

And

One Detailed Design Consultancy assignment or proof checking of Detailed Design exclusively of Bridges/Flyovers with Prestressed Concrete Superstructure of Rs. 20 Lakhs or more. (Preparation of

DPR of Highway Project shall not be considered under this category).

Note :

- i) * *Substantially completed work would be one in which 80 % satisfactorily completion has been done and the value of such completed portion shall be not less than as specified in 8 (ii) above.*
- ii) *The work shall be certified by the client for whom these works have been done/are being done which should be a Government Department, a Public Sector Undertaking or a Public Limited company.*
- iii) *§ In case of an existing JV as bidder, the Technical and Financial criteria may be satisfied by the JV or its lead member.*
- iv) *In case of payments received in foreign currency, currency conversion rate as on the date of last day bid submission shall be taken for converting the amount in Indian Rs.*
- v) *Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:*
 - *made misleading or false representations in the forms, statements and attachments submitted in proof or the qualification requirements; and/or*
 - *record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.*

9. Formats for submitting Technical and Financial Proposal

Formats for submitting Technical and Financial Proposals are given in **Section 6** and **Section7** respectively.

10. General Conditions of Contract for Consultancy Contract & Special Conditions of Contract

The consultancy contract between successful bidder and DFCC will be governed by General Conditions of Contract (GCC) for Consultancy Contract (**Section 8**) as amended / supplemented by Special Conditions of Contract (SCC) given in **Section 9**.

11. Group (Joint Venture)

- 11.1 The Bidders may submit their proposal to undertake this consultancy work either as an individual applicant or as a lead member of a Group in the form of Joint Venture.
- 11.2 Number of constituent members including **lead member shall not be more than TWO.**
- 11.3 A constituent member to a particular JV cannot be a member to another JV while submitting proposal for this consultancy work. A company cannot bid individually in addition to being a member in another joint venture.
- 11.4 The proposal shall clearly state that all the members in the Joint Venture will be jointly and severally responsible for performance under the consulting services contract. A Memorandum of Understanding between the constituent members of such Joint Venture stating inter-relationship and division of work between the constituent members as per principles for preparing Memorandum of

Understanding given in **Annexure-6.5** of **Section 6** shall be submitted along with the bid. In this connection, para 1.4.4 of General Conditions of Contract (GCC) included in **Section 8** of this document may also be referred.

11.5 **Power of Attorney signed by all constituent members must accompany the bid, authorizing the lead partner to submit and negotiate the proposal on their behalf.**

11.6 **Lead Member shall have majority share in the Joint Venture.**

12 Conflict of Interests:

The Conflict of Interests clause included as **Clause 5.2** of the General Conditions of Contract (**Section 8**) shall be applicable.

13 Technical Proposal

13.1 Technical proposal shall cover in detail the following:

13.1.1 **Qualification Information** with reference to (i) eligibility criteria (ii) undertaking regarding non-association with the Contractor/s executing the works under this Project as defined in para 8 above and Formats at **Annexure 6.3-1 to 6.3-7**

13.1.2 **Specific experience of the firms for the works of a nature similar to this Consultancy Services:**

a. The background and experience of the Bidder company (and constituent members, in case of JV).

b. A list of past work of a nature similar to this consultancy services performed for Govt. Dept./PSU/Public Ltd company, as defined in **Annexure- 6.4-2** of **Section6**, completed in the last three years (after 01/04/2005). The details of past work shall be given as per format given in **Annexure 6.4-2 (section 6)**.

c. The certificate from the clients for the completed work shall be included in the proposal.

d. The Bidder shall also include the list of works under execution as per format given in **Annexure 6.4-3** of **section 6**.

13.1.3 **Adequacy of the proposed work plan and methodology in responding to the Terms of Reference (TOR).**

The general approach and methodology which the Bidder proposes for carrying out the services covered in the Terms of Reference, including such details/information as deemed relevant, together with:

a. A detailed overall work programme and a bar chart indicating the duration and the timing of the assignment of each key personnel or other staff members assigned to the project along with their responsibilities.

b. Bidder's understanding about TOR and comments / suggestion on TOR.

Bidder is required to cover the entire scope of work as mentioned in the Terms of Reference included in **Section 5** of this document.

13.1.4 **Qualifications, experience and competence of the key personnel to be deployed for the Services.**

The name, background and professional experience of each key personnel to be assigned to the project, as listed in **Para 8.2** of **Section 5** with particular reference to his experience of work of a nature similar to that of the proposed assignment shall be submitted. It will be desirable that the key personnel proposed are permanent employees of the Lead Member / Constituent Members at the time of submitting proposal. The minimum qualification for the key

- personnel is given in **Para 8.3 of Section 5**. The CV of key professional staff shall be submitted as per format given in **Annexure- 6.4-7 (Section 6)**.
- 13.2 Technical Proposal shall be prepared using, but not limited to, the formats included in **Section 6** of this document.
- 13.3 **No information relating to estimated costs or financial terms of the services shall be included in the Technical Proposal. If any information related to estimated costs or financial terms of the services are included in the Technical Proposal, the Proposals shall be rejected.**
- 14 Financial Proposal**
- 14.1 The Financial Proposal shall list all costs associated with the consultancy services. These costs normally cover remuneration for staff in the field and at home office, accommodation (per diem, housing) transportation (for mobilization and demobilization and for all local activities pertaining to the assignment), and equipment (vehicles, office equipment, communication equipment, furniture and supplies and their upkeep and maintenance), printing of documents, surveys (excluding equipment which will be made available by the Contractor) etc. **All the costs shall be quoted in Indian Rs.** The Financial Proposal shall be prepared using, but not limited to, the formats included in **Section 7** of this document.
- 14.2 The financial proposal must also take into account, all the tax liabilities and the cost of insurance of the consultants for the duties & work performance, both in India and abroad related to this project. No tax liability or insurance expense will be borne by DFCC **other than reimbursement of Service Tax (if due for payment legally)**. Further the cost of professional indemnity Insurance Policy for consultant's staff performance for this project shall be borne by the Consultant. This professional indemnity insurance shall be taken by the Consultant.
- 14.3 All costs of the consultancy services shall be considered and quoted accordingly in the proposal.
- 14.4 All payments to the Consultant will be subject to deduction of tax at source in accordance with provisions of the Indian Income Tax Act and any other applicable law.
- 14.5 The Bidder shall work out and indicate total cost of the consultancy assignment in **Indian Rs.** This amount will be the **Contract Value** and will be paid as per the rates indicated in the financial proposal subject to the maximum ceiling of the contract value.
- 15. Date of validity of Proposal / bid**
The proposal / bid submitted shall **be valid** for a period of **90 days** form the last date of submission of the bid.
- 16. Bid Security**
- 16.1 The Bid Security in the form of FDR, Banker's cheque or Demand Draft from any Scheduled / nationalized Indian Bank for **Rs. 8 Lakhs** in favour of Dedicated Freight Corridor Corporation of India Limited will be required to be submitted by each bidder, with a **validity period of 120 days** from the date of submission of bid and with a provision that it would be suitably extended on request of DFCC. **Proposals submitted without Bid Security or with invalid Bid Security would be summarily rejected.**
- 16.2 The Bid Security of the successful bidder will be released to him on receipt of the initial performance guarantee as stated in **para 21** of this section and signing of Contract Agreement as per General Conditions of Contract (**Section 8**).

16.3 The Bid Securities furnished by the bidders, who are unsuccessful, will be released within thirty days of the expiry of the validity period (including the extended period, if any).

17. Submission, Receipt, and Opening of proposals

17.1 The Technical Proposal and the Financial Proposal shall be prepared in indelible ink. It shall contain no inter-lineation or overwriting, except as necessary to correct errors made by the firm. Any such corrections must be initialed by the person or persons who sign(s) the Proposals. The Technical Proposal shall be in hard bound form. An index of the content shall be put in the beginning of the Technical Proposal. All pages of the proposal shall be numbered. Similarly, the Financial Proposal shall also be in hard bound form. An index of the content shall be put in the beginning of the financial proposal. All pages of the proposal shall be numbered.

17.2 An authorized representative of the firm shall initial all pages of the Proposals. **The representative's authorization shall be confirmed by a written power of attorney accompanying the Proposal.**

17.3 The Bidder shall prepare **One Original and One Copy** of the **Qualification Information and Technical Proposal which would mean complete tender documents except Section VII and the information asked therein.** The Financial Proposal (Section VII) shall be submitted in original with one additional copy. Each Technical Proposal and Financial Proposal shall be marked "**Original**" or "**Copy**" as appropriate. If there are any discrepancies between the original and the copies of the Proposals, the original prevails.

17.4 **Qualification Information**, original and copy in forms specified in **Section 6**, the Technical Proposal, original and copy and the Bid Security as described in **Para 16** shall be placed in an envelop (first envelop) which shall bear the address of the designated official of DFCC (as given in para 29) and that of Sender. All the blank spaces to be filled by bidders including that in section IX shall be filled in by the bidders. The envelop must be clearly marked **TECHNICAL PROPOSAL- "Engagement of Project Management Consultant - Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India ."**

17.5 The Financial Proposal, original and copy, shall be sealed in another envelope (Second envelop) which shall bear the address of the designated official of DFCC (as given in para 29) and that of Sender. The envelope must be clearly marked: **FINANCIAL PROPOSAL- "Engagement of Project Management Consultant - Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India ."** and a warning: **"Do Not Open with the Technical Proposal"**.

17.6 The two envelopes shall be placed in an outer envelope and sealed. This outer envelope shall bear the submission address (as given in para 29) and a warning **"Do not open, except in presence of the bid opening committee"**. The information on the outer envelope shall also include: **"Engagement of Project Management Consultant - Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India ."** and the name of the Sender.

- 17.7 The completed Qualification information, Technical Proposal, Financial Proposal and Bid Security must be delivered at the submission address (as given in para 29) on or before the time and date stated in this section. Any Proposal received after the closing time for submission of proposals shall be summarily rejected and returned unopened.
- 17.8 After the deadline for submission of proposals and at the time specified for opening of Bids, the first envelop containing Bid Security, Qualification Information and Technical Proposal shall be opened in the presence of representatives of Bidders who send their authorised representatives for witnessing such opening. Proposal not accompanied by valid Bid Security shall stand summarily rejected.
- 17.9 DFCC reserves the right to accept or reject any or all the proposals without assigning any reasons. No bidders shall have any cause of action or claim against the DFCC for rejection of his proposal.

18. Proposal Evaluation

- 18.1 From the time the bids are opened to the time the Contract is awarded, if any bidder wishes to contact the Client on any matter related to its proposal, it shall do so in writing at the address indicated in this section. Any effort by the bidder to influence the Client in the Client's proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the Bidder's proposal.
- 18.2 The proposals received without complete and valid Bid Security shall be summarily rejected. The proposals received with complete and valid Bid Security shall be evaluated against minimum Eligibility Criteria given in para 8 above and those of the proposals not satisfying the minimum Eligibility Criteria shall be considered ineligible and shall not be evaluated further. For each proposal, which is accompanied with the Bid Security as per **Para 16** above, submitted all the details as per **Para 13** above and satisfies the minimum Eligibility Criteria as per Para 8 above, DFCC will carry out evaluation of Technical Proposal applying the evaluation criteria and scoring system specified below.

18.3 Evaluation of Technical Proposals

- 18.3.1 DFCC will evaluate the proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria and point system specified below. Each responsive proposal will be given a technical score (**S_t**). The Technical Proposal of the bidders will be evaluated based on the information submitted by them. However, DFCC reserves the right to seek clarification from the bidders, if it considers it necessary for proper evaluation of the proposal. The clarification will be sought through fax / e-mail and the bidder will be required to submit clarification in the stipulated time period. The clarification received within stipulated time period will be taken into consideration for evaluation of the technical proposal. A proposal shall be rejected at this stage if it does not respond to **important aspects of the Terms of Reference** or if it fails to achieve the minimum prescribed technical score.

Points

- | | | |
|-----|--|-----------|
| (i) | Specific experience of the consultants related to the assignment | 20 |
| | a) Experience in similar nature & conditions over past 3 years from financial year 2005-06 | 10 |

	up to the last date of bid submission (Annexure 6.4-2)	
b)	Experience in works of similar magnitude. (Annexure 6.4-2)	7
c)	Software capability in project monitoring, design and contract management.(Annexure 6.4-2)	3
(ii)	Adequacy of work plan, methodology and appreciation of project requirements and understanding of T.O.R	5
	a) Understanding of TOR (Annexure 6.4-4)	1
	b) Methodology of delivering Consultancy Services and understanding of project requirements.(Annexure 6.4-5)	2
	c) Adequacy of work plan, manning schedule (Annexures 6.4-8 to 6.4-10)	2
(iii)	Qualifications and competence of the key professional staff for the assignment (Annexure 6.4-7)	75
	a) Team Leader / Chief Resident Engineer	20
	b) Resident Engineer I	15
	c) Resident Engineer II	15
	d) Resident Engineer III	15
	e) Quality Assurance Expert	5
	f) Techno-legal/Contract Administration Expert	5
	Total Max 'St'	100

The minimum Technical Score 'St' required to qualify is: 75

It will be mandatory for the consultants to provide full time key personnel against all the specializations indicated under (iii) (a) to (f) above. Failure to do so will make the bid liable to be considered as non-responsive. Management and monitoring of Project has been considered as part of the Team Leader's specialization. Adequate numbers of support staff for construction and project supervision will be important while considering manning schedule. Consultants are advised to propose highly qualified and competent personnel in view of the nature of the project.

The number of points to be given for evaluation criteria (iii) viz. qualifications and competence of the key professional staff for the assignment are:

	Points
(i) General qualifications	30
Professional qualifications (10) length of experience and positions held (15), time with the consulting firm (5)	
ii) Adequacy for the project	60

Project experience (20), professional experience specific to assignment (25), Specialization / skills useful for project (15)

iii) Experience in railway bridge works (10) 10

Total Points: 100

Approximate key professional man months are estimated as **231 man months**. Similarly man months of technical support staff are estimated as **438 man months**. An estimation sheet is annexed in Annexure to ITB in this Section. This is only indicative and consultant shall assess his own requirements. Understanding of the project requirements, adequacy of work plan and manning schedule and quality of key professionals and support staff will be important factors in evaluation.

18.4 Evaluation of Financial Proposal

18.4.1 Financial Bids of those bidders whose **Technical Score is greater than or equal to 75 (Seventy Five)** shall be eligible for opening.

18.4.2 Prior to the expiration period of proposal validity, DFCC will notify the eligible bidders as specified in para 18.4.1 above, by registered letter / courier/ fax or e-mail the Venue, Date and Time of opening of the Financial Proposal. Bidders who wish to attend the opening of the Financial Proposal shall depute their authorized representatives for the opening of the Financial Proposal.

18.4.3 After opening of the Financial Proposals DFCC will determine if the financial proposals are complete and without computational errors, unqualified and unconditional. Financial Proposals which are complete and without computational errors, unqualified and unconditional shall be evaluated for computation of the financial score. Financial Proposals which are incomplete and/or qualified and/or conditional shall be treated as Non Responsive and shall stand rejected.

18.4.4 The formula for determining the financial scores is as follows:

Sf = 100 * Fm/F, where **Sf** is the financial score, **Fm** is the lowest price and **F** is the price of the proposal under consideration.

18.5 Computation of Final Score 'S' and selection of Preferred Bidder

18.5.1 The weights given to technical and financial proposals are:

T= 0.80

P= 0.20

18.5.2 The final score of each proposal **S** is worked out as below

S = T * St + P * Sf

18.5.3 **Bidder with highest value of S shall be the preferred Bidder**

19. Negotiations

19.1 Negotiations shall be held with the preferred Bidder. The aim of negotiations is to reach agreement on all points, and initiate a draft contract by the conclusion of negotiations.

19.2 Unless there are exceptional reasons, the negotiations will involve neither the remuneration rates for staff nor other proposed unit rates.

19.3 Negotiations will commence with a discussion of Technical Proposal, the proposed methodology (work plan), staffing and any suggestions the Bidder may have made to improve the TOR. Agreement must then be reached on the final

TOR, the staff and bar charts, which will indicate activities, staff, periods in the field and in the headquarter office, staff months, logistics and reporting. Special attention will be paid to optimize the required outputs from the Consultants within available budget and to define clearly the inputs required from the DFCC to ensure satisfactory implementation of the consultancy services.

- 19.4 Having selected the Consultants, among other things, on the basis of an evaluation of proposed key professional staff, DFCC expects to negotiate a contract on the basis of this staff being actually available.
- 19.5 The DFCC will not consider substitutions during contract negotiations except in cases of unexpected delays in the starting date or incapacity of key professional staff for reasons of health (approved by DFCC). It will be Consultant's responsibility to field any equivalent staff (in qualification, experience and capability) and seek DFCC's approval before mobilization in case need arises.
- 19.6 If during contract negotiations the consultant comes up with proposals for substitutions of key professional staff proposed by them in their technical offer, DFCC reserves the right to re-evaluate the technical proposal based on alternate staff suggested which may lead to change in the ranking of the consultant.
- 19.7 If the negotiations with the bidder submitting first ranking proposal fail due to any reason, DFCC reserves the right to invite the bidder, who submitted next ranking proposal and so on.
- 19.8 The negotiations will be concluded with a review of the draft form of Contract given in **Section 8**. The DFCC and the Consultant will finalize the contract to conclude negotiations.

20. Award of contract

- 20.1 The DFCC will issue a letter of award to the successful bidder after the negotiations have been completed and all terms and conditions have been settled between DFCC and the successful bidder.
- 20.2 Within 15 days from the date of issue of the letter of award, the successful bidder will be required to (i) execute the Contract Agreement for Consultancy Services as per General Conditions of Contract for Consultancy Services (**Section 8**) and as amended and supplemented by Special Conditions of Contract (**Section 9**) and (ii) furnish an initial Performance Guarantee as per **Para 21** given below.
- 20.3 The selected Consultant will be expected to commence the services on the date and at the locations as mutually agreed between DFCC and the Consultant.

21. Performance Guarantee

- 21.1 The Performance Guarantee shall be submitted by the successful bidder after issue of letter of award.
- 21.2 The initial Performance Guarantee of Indian Rs. 40 Lakhs shall be submitted in the specified form from a scheduled/nationalized bank, within 15 days of the issue of Letter of Award.

21.3 The Performance Guarantee shall be valid for two months beyond the date of completion of consultancy services (end of Defect Liability Period).

22 Advance Payment

The following provisions shall apply to the advance payment and the advance payment bank guarantee.

- a. An advance payment @ Five percent (5%) of the Contract Value (ceiling amount for the Services fixed at time of award of Contract) in Indian Rupees against a Bank Guarantee for the same amount from Scheduled Bank / Nationalized Indian Bank on format prescribed in GCC (**section 8**) shall be paid.
- b. The advance payment shall carry a simple interest equal to the public Lending Rate (PLR) of the State Bank of India **plus** one (1) percent p.a. The PLR shall be taken as applicable on date of release of the advance payment.
- c. The advance payment shall be paid only after receipt of proper valid Performance Guarantee and signing of Contract Agreement.
- d. The advance payment including interest thereon amount shall be recovered in equal installments from the payments for first twenty four (24) months of service until the advance payment and interest thereon have been fully set off.
- e. If for any month, the advance payment recovery installment is more than the amount billed, there will be no negative billing on this account and the balance of recovery will be carried over to subsequent month/s.

In this connection, refer to clause 8.4 of General Conditions of Contract (**section 8**) and as amended by Special Conditions of Contract (**section 9**).

23. Estimated duration of consultancy services

PMC shall be responsible for project management for a period up to one year beyond the date of completion of Bridge Works under the project. The estimated duration of consultancy services is a period of 3 ½ years (including Defect Liability Period which is one year) from the date of award consultancy contract.

24. Escalation in Consultancy Fee

The formula for Calculation of Escalation in Consultancy Fees shall be as under: All inclusive monthly payment of employed Personnel pursuant to rates set forth in the contract (Annexure 7.2 of Section 7) shall be adjusted after every eighteen (18) months from date of commencement by increasing it by factor of eight (8%) percent. In this connection, please refer **Clause 8.2** of General Conditions of Contract (**section 8**) and as amended by Special Conditions of Contract (**section 9**).

25. Payment Terms

Payment shall be released as per payment terms given in **Clause 8.4** of General Conditions of Contract (**section 8**) and as amended by Special Conditions of Contract (**section 9**).

26. Clarification required on Terms of Reference and other terms & conditions.
Any clarification / additional information required on Terms of Reference (TOR) and other terms and conditions shall be submitted by 13.10.08 to the designated official mentioned in **Para 29** below. Every effort will be made to provide any clarification / additional information requested. Requests for clarification / additional information, or any delay in complying with such requests, shall not, however, in any way affect the obligation of bidders to send complete proposals by the deadline indicated in this letter.

27. Visit to project site.

The bidders are advised to visit the project site prior to the pre-bid conference. It shall be clearly noted that any costs incurred by the bidders for attending the pre-bid conference, visit to the project site, collection of preliminary information for preparation of the said proposals, or subsequent negotiations, would not be reimbursed.

28. Pre-bid Conference:

The Bidders are invited to attend pre-bid conference at 11.00 hrs on 15.10.08. The venue of the conference will be Conference Room, 5th Floor, Pragati Maidan Metro Station Building Complex, New Delhi - 110001.

29. The Contact details of the designated official are as under:

Group General Manager (Engineering – I)
Dedicated Freight Corridor Corporation of India Limited
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001
Tel / Fax: 011 – 2410 0779, 011-23370602
e-mail : ggm.engg1@dfcc.in : Website: www.dfcc.in

30. Schedule of Biding Process: DFCC would endeavor to adhere to the following schedule:

Issue of RFP document	: From 06.10.08
Download RFP from website	: From 03.10.08
Last date for submitting requests for clarifications	: 13.10.08
Pre- Bid Conference	: 15.10.08
Response of DFCC on clarifications	: 22.10.08
Proposals Due date	: 06.11.08

31. Completed bid documents along with the Bid Security must be delivered during office working hours on any working day on or after 24.10.08 but not later than 15.00 hrs of 06.11.08 to the address given in para 29 above. Any proposal received after the above indicated date and time, shall not be opened/ considered. Any delay in delivery of the proposal by post shall be responsibility of the bidder.

32. Declaration for Bid Documents Downloaded From Website

Bidders who submit their bids on downloaded Bid Document shall give the following undertaking

“I/We have downloaded the bid document from the website www.----- and I/We have not tampered/modified the bid document in any manner. In case the document is found to be tampered/ modified I/We understand that my/our bid is liable to be rejected and full Bid Security shall be forfeited and I/we am/are liable to be banned from doing business with DFCC and/or prosecuted.”

Deployment of Personnel - Indicative

Key personnel	Designation Support Staff (Professional)	M Months Key Personnel	M Months Support Personnel
	CRE	42	
	RE 1 (Civil)	42	
	RE 2 (Civil)	30	
	RE 3 (Civil)	30	
	QAE	30	
	Contracts Expert	42	
	Environmental Expert (Pt Time)	15	
	Supervisor (Civil)		42
	Supervisor (Civil)		42
	Supervisor (Civil)		36
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Supervisor (Civil)		30
	Technical Asst		42
	Technical Asst		36
	Technical Asst		30
	TOTAL	231	438

Section – 2

DATA SHEET

Section – 2
DATA SHEET

Salient Features of RFP Document

SN.	Item	Details	Reference
1.	Name Of work	Project Management Consultancy for Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .	
2.	Maximum no. of members of JV including Lead Member	2 (Two)	Para 11.2 of section I
3.	Share of Lead Member	Lead Member shall have majority share.	Para 11.6 of section I.
4.	Last date for submitting requests for seeking clarifications on RFP document.	13.10.08	Para 26 of section I
5.	Pre- Bid Conference	11.00 hours on 15.10.08	Para 28 of section I
6.	Response of DFCC on clarification	22.10.08	Para 30 of Section 1
7.	Last date for receiving proposal (Proposal due date)	15.00 hrs on 06.11.08	Para 30 of Section 1
8.	Contact Details of Designated Official / Address for submitting the proposal.	Group General Manager (Engineering- I). Dedicated Freight Corridor Corporation of India Limited, 5 th Floor, Pragati Maidan Metro Station Building Complex, New Delhi - 110001 Tel / Fax: 011 -24100779, 011-23370602 e-mail:ggm.engg1@dfcc.in: Web site: www.dfcc.in	Para 29 of Section 1
9.	Duration of validity of proposal	90 days	Para 15 of section I
10.	Duration of Consultancy services	3 ½ years form date of award of consultancy contract.	Para 4 of section 5
11.	Bid Security	Indian Rs. 8 Lakhs in the form of FDR, Banker's cheque or Demand Draft.	Para 16 of section I.
12.	Performance Guarantee	Performance Guarantee of Indian Rs 40 Lakhs to be submitted.	Para 21 of section 1.

13.	Advance Payments	Upto 5% of contract value. Simple interest = PLR of SBI + 1%.	Clause 8.4 (a) of GCC-section 8 as amended by SCC- section 9.
14.	Payment Schedule	To be seen at clause 8.4 (b) GCC – section 8 as amended by SCC –section -9.	Clause 8.4 (b) of GCC-section 8 as amended by SCC- section 9. Annexure 7.2
15.	Currency for payments	Indian Rs. (INR) only	Para 14 of section 1 and clause 8.4 (b) of GCC- section 8 as amended by SCC-section 9.
16.	Liquidated Damaged	0.5% per week of contract value subject to a maximum of 10% of Contract Value.	Clause 2.7 of GCC-section 8 as amended by SCC- section 9.
17.	Penalty for deficiency	Up to 10% of contract value.	Clause 2.7 of GCC – section 8 as amended by SCC – section 9.
18.	Escalation in Consultancy Fee	Remuneration of employed personnel pursuant to rates set forth in the contract shall be adjusted after every eighteen (18) months form date of commencement by increasing it by factor of eight (8%) percent.	Clause 8.2 (a) of GCC-section 8 as amended by SCC- section 9.
19	Conflict of Interests	Clause 5.2 of GCC (section 8)	Clause 5.2 of GCC

Section – 3
Institutional Arrangements

Section - 3

Institutional Arrangements

1.0 Organization and Financing Arrangement

The Government of India, Ministry of Railways (MOR) have set up a public sector company named Dedicated Freight Corridor Corporation of India Limited (DFCC) under the Indian Companies Act 1956 to implement the Dedicated Freight Corridor (DFC) Project. The DFC project will be funded by the Government of India partly through equity contribution, and partly through loans obtained by Government of India from external funding agencies. The project funding may be supplemented by strategic partnership with other stake holders. The work related to Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India will be funded by Government of India.

2.0 Implementation Strategy

- 2.1 The DFC project will be mostly implemented through Design and Build (Lump Sum) contracts.
- 2.2 Initially work for Western Freight Corridor between Vaitarna & Utran between Vasai – Bharuch Section in the states of Maharashtra and Gujarat, India is planned to be taken up.
- 2.3 DFCC intends to appoint Project Management Consultant through this RFP to provide Project Management Consultancy Services for the Design and Build (LS) Contract for the above work. The scope of services is given in Terms of Reference (**Section 5**).
- 2.4 DFCC will appoint Proof Consultants for checking and approving Detailed Designs & Drawings of the Bridges.

3.0 Role of Dedicated Freight Corridor Corporation of India Ltd. (DFCC).

DFCC will be the implementing agency for the DFC Project. Role of DFCC includes:

- i. It will exercise all executive, technical and financial powers and all proposals of PMC will be approved by DFCC.
- ii. DFCC will be responsible for arranging funding for the project and payment to contractors/ consultants.
- iii. DFCC will be the convener of various co-ordination groups at which PMC will present their proposals for approval of relevant Government agencies.
- iv. DFCC will make separate arrangements for Operation and Maintenance of Bridges after commissioning of the system and opening of commercial services.

- v. DFCC is fully empowered to make financial commitments in regard to DFC project including award of contracts and the operation of the contracts.
- vi. DFCC will acquire land for project under the new amended Act “The Railways (Amendment) Act, 2008” (No. 11 of 2008) as published in the Gazette of India no.17 dated 28.03.2008. The Dedicated Freight Corridor Project has been declared as **Special Railway Project** for land acquisition under this Act.
- vii. DFCC will be responsible for obtaining all required statutory approvals from MOR and other Central and State Government agencies. PMC will assist DFCC in these matters.
- viii. DFCC will coordinate with state Governments for rehabilitation and resettlement activity in connection with Land Acquisition.
- ix. DFCC will coordinate with Zonal Railways for their clearance and approvals wherever required. PMC will assist DFCC in these matters.
- x. Technical clearances at various stages of project implementation and approval to the opening of the commercial services on project completion would be arranged by DFCC. Guidance, support or approval, if any, to be taken from Ministry of Railway will be the responsibility DFCC. However, PMC will provide necessary assistance to DFCC in obtaining such clearances and approvals.
- xi. It is relevant to point out that the major and important bridges are to be built along the existing Indian Railway tracks. As such, construction of these bridges and their approaches will require extensive coordination with the Indian Railway authorities which shall be done by DFCC. PMC will assist DFCC in this regard.

4.0 **Role of Ministry of Railways (MOR).**

- i. The Government of India through the Ministry of Railways is the sole share-holder of DFCC.
- ii. The Ministry of Railways is to exercise technical control and is to give approval on such projects including opening of the commercial services.
- iii. The Indian Railway Act, 1989 as amended from time to time provides legislative support to such projects.

5.0 **Role of PMC**

All executive, technical and financial powers will be exercised by DFCC. PMC will obtain DFCC's approval for all matters that lie within his scope of services. PMC will guide and supervise the implementation of the project within the approvals obtained from DFCC. The role of PMC is given in Terms of Reference for the Consultancy Services given in **Section 5**.

6.0 Role & Responsibility of Independent Engineers for Quality Audit.

DFCC may appoint Independent Engineers for quality audit. The Independent Engineers will report directly to DFCC. The role of Independent Engineers will be to do the independent quality auditing and provide feedback to DFCC on quality matters. However, PMC will be overall responsible for quality of work and implementation of quality assurance programme.

Section – 4

Project Information

Section 4 A Information about DFC Project

1 THE DFC PROJECT

Ministry of Railways (MOR), Government of India have planned to construct Dedicated High Axle Load Freight Corridor with Computerized Train Control covering about 2,762 route kms on two corridor, Eastern Corridor from Ludhiana to Sonenagar / Dankuni and Western Corridor from Jawaharlal Nehru Port, Mumbai to Tughlakabad / Dadri near Delhi along with inter-linking of the two corridors at Khurja.

The DFC project entails construction of mostly double –line railway tracks capable of handling 32.5 ton axle load, longer trains and also double-stack containers. Up gradation of transportation technology, increase in productivity and reduction in unit transportation costs have been taken as guiding principles for formulating the project. Various operating systems, motive power, signaling and work processes are required to conform to this broad perspective.

The DFC project covers route length of 1483 Kms. on the Western Corridor (JNPT- Ahmedabad- Palanpur- Rewari- Asaoti- Dadri) and 1279 Kms. on the Eastern Corridor (Sonenagar- Mugalsarai – Allahabad- Kanpur- Tundla- Aligarh- Khurja- Meerut-Saharanpur- Ludhiana). Sonenagar- Dankuni is to be taken up subsequently. The DFC project consists of construction and commissioning of Double Line Electrified (2x 25 KV) Track from Sonenagar to Khurja and Single Line Electrified (2 x25 KV) Track from Khurja to Ludhiana on the Eastern Corridor & double line non- electrified track from JNPT to TKD for the Western Corridor. The matter regarding Electrification of Western Corridor is under active consideration of MOR.

2 BACKGORUND INFORMATION

2.1 Need of the Project.

The high- density network, which connects four metro cities of Delhi, Kolkata, Chennai and Mumbai including the diagonals, comprises only 16% of the IR network & carries 65% of the goods traffic and 55% of passenger traffic. This network is saturated in most of the sections. Mumbai- Delhi and Mumbai – Howrah route have a current capacity utilization of more than 140%. Necessary infrastructure needs to be urgently created along these corridors to facilitate movement of much higher level of freight traffic to support the nation's growing economy.

2.2 Identification of Freight Corridors

Rail borne container traffic is growing presently at 16% per annum. Additional container handling works are planned at Jawaharlal Nehru Port Trust (JNPT). Similarly major ICDs in North India including Tughlakabad and Dadri are expected to generate huge volumes of traffic. All this needs strengthening of Delhi – Mumbai Rail Corridor. Similarly huge traffic of coal, steel, cement, fertilizer, POL is anticipated on Delhi – Howrah route which will severally put further strain on the existing already congested route.

2.3 Techno-Economic Feasibility Study

MOR had commissioned M/s. RITES to carry out a feasibility study followed by preliminary Engineering cum Traffic Survey for construction of a Dedicated Multi-

Modal High Axle Load Freight Corridor with Computerized Train Control System between Sonnagar-Ludhiana on the Eastern Corridor and Mumbai to Delhi on the Western Corridor. The feasibility report was submitted by RITES in January 2006 and the final PETS Report was submitted in January 2007.

2.4 **Details of the Western Corridor**

Route will consist of a double line measuring 1483 Km starting from JNPT to Dadri via Vadodara – Ahmedabad –Palanpur – Phulera – Rewari. In addition a single line connection of 32 Km long from proposed Pirthala Junction Station (near Asaoti on Delhi – Mathura Line) to Tughlakabad will be provided. Alignment has been generally kept parallel to existing lines except provision of detour at Diva, Surat, Ankleshwar & Bharuch, Vadodara, Anand & Ahmedabad, Palanpur, Ajmer, Ladpura, Kishngarh, Phulera, Ringus and Rewari. The DFC will be on entirely new alignment from Rewari to Dadri as there is no existing railway line from Rewari to Dadri. DFC will join Eastern Corridor at Dadri.

2.5 **Location and Surroundings of the DFC Project**

A detailed survey of the entire length by picking up of details of land boundaries, existing structures, including power lines, station buildings, availability of land outside the existing right of way, etc., is currently under advanced stage to decide optimum alignment of the corridor. The proposed alignment is being marked keeping the following considerations in view:

- i) Track of DFC is on one side of the existing alignment.
- ii) In parallel alignment, the spacing between IR track and DFC track has been kept so as to have separate embankment for the DFC tracks and therefore, there will be no need to modify the existing bridges of Indian Railways.
- iii) Detouring is proposed – to avoid heavily populated urban habitations.
- iv) Rail flyovers have been planned wherever DFC crosses existing lines (either main line or branch line). Rail flyovers at junction stations have also been planned wherever substantial traffic is expected.
- v) Minimum dismantling of existing structures.
- vi) Minimum changes to existing yards / running lines.

Western route (Mumbai-Delhi route) of dedicated freight corridor passes through the states of Maharashtra, Gujarat, Rajasthan, Haryana, Delhi and Uttar Pradesh involving Thane and Raigarh districts of Maharashtra; Valsad, Navsari, Surat, Bharuch, Vadodara, Anand, Kheda, Ahmedabad, Gandhinagar, Mahesana and Banas Kantha districts of Gujarat; Sirohi, Pali, Ajmer, Nagaur, Jaipur, Alwar and Sikar districts of Rajasthan, Mahendragarh (Narnaul), Rewari, Gurgaon and Faridabad districts of Haryana, South Delhi district of Delhi and Gautam Budhnagar district of Uttar Pradesh.

3.0 **Implementing Organization**

The Dedicated Freight Corridor Project will be implemented by Dedicated Freight Corridor Corporation of India Ltd. (DFCC), a public sector company set up under the Indian Companies Act 1956, Government of India is the sole shareholder of the DFCC.

Section – 4 B

Information about the PMC assignment and the Project Work

1. This Bid is for the appointment of Project Management Consultant for management of the project during construction and defect liability period for the work comprising Construction of **54 nos. Major & Important Bridges** on the Western Freight Corridor between Vasai and Bharauich in the states of Maharashtra and Gujrat. These 54 bridges are with concrete superstructures. **Bid for the work of design & construction of 54 bridges comprising concrete superstructure have already been opened** and can be seen on the dfcc web site www.dfcc.in.
2. Important features of the Project are brought out at **Annexure – 4B-I** 'Employer's Requirements – Functional and Outline Design' which forms an integral part of the Bid document for the Design and Construction of 54 bridges with concrete superstructures.

EMPLOYER'S REQUIREMENTS- FUNCTIONAL AND OUTLINE DESIGN FOR EXECUTION OF THE PROJECT WORK

1. Preamble

The Work consists of Design and Construction of eight important & forty six major bridges between Vaitarna and Utran on Western Corridor of DFC Project. The bridges shall be for double track. Vaitarna to Utran section falls between Mumbai Central and Vadodara Main Line of Western Railway. The list of Bridges covered under this work is at Table- I of this Section.

Activities of acquiring of approximate alignment of the proposed bridges, HFLs recorded, river surveys (1 km upstream and 200m downstream) and preliminary geotechnical investigations have been carried out and based on these GADs of the proposed bridges have been developed. Contractor is expected to generally adopt the spanning arrangement as per the GADs. However, the Contractor is required to carry out topographic survey, waterway calculations, detailed Geotechnical Investigation at each substructure location, prepare detailed GADs (based on his concept) and assist the Employer in obtaining requisite approvals from the Western Railway, develop detailed designs of the bridges, prepare detailed drawings, prepare construction drawings and thereafter obtain the approval of Proof Checking agency appointed by the Employer followed by approval of the Employer. **Approval for the enabling works for construction such as Casting Yards, Launching Girders, Methodology of Construction etc. shall be obtained from the PMC who acts as Employer's Representative.**

2. Interfacing and Integration for Works

2.1 The contractor shall take full responsibility in terms of organising, managing, coordinating and administrating the interfacing of all components of works including all issues related to and arising out of such tasks and responsibility. The contractor shall interface with all concerned authorities and other contractors as required to complete the work satisfactorily within the stipulated period. **Contractors shall be working under the direction and supervision of PMC.**

2.2 Under consideration and application of the above clause, the contractor shall and has also the obligation to liaise with the other contractors and Authorities to obtain all necessary technical information, all necessary information concerning organisation of works, coordinating the works etc. which are necessary to assess, mitigate, take care of contractual obligations, risks, liabilities and whatsoever arising out of interfacing, engineering issues, organisation of the works etc. The Employer shall not be held liable in any way, throughout the preparation of the offer and / or execution of the works and / or maintenance period and / or liability period for any omissions, misunderstanding, negligence etc. arising out of interfacing, coordinating, organising etc. of the works. DFCC will not entertain any claim arising out of misunderstanding, miscommunication, omission, withholding of necessary / required information or whatsoever between the concerned contractors/ Authorities concerning interfacing, organising etc. of

works. In case of any claim arising from any of the contractors, as aforesaid, referring to interfacing and / or interfacing related issues, the employer will hold the concerned contractors liable for not taking care of their contractual obligation concerning interfacing, organising, co-ordination etc. of the related works.

- 2.3 It is the intention of DFCC that the overall interfacing, planning, scheduling, logistic administration inclusive of necessary logistic planning and all tasks that are necessary to guarantee proper co-ordination and proper interfacing of all activities during the complete execution of the works, is clearly understood and agreed to.

3. Contractor's General Engineering, Design & Procurement Obligations

- (a) The Contractor shall be solely responsible for the design and construction of the Work and for the adequacy thereof. Contractor's responsibility shall not be in any way be diminished nor shall the Contractor's design approach be limited by the DFCC's acceptance of the Contractor's guidance or recommendations as to engineering standards and design specifications, or by the DFCC's approval, suggestions or recommendations on any aspect of the engineering or design. The work shall be carried out as per the design prepared by the bidder and approved by the DFCC. The works shall also include grubbing of site, cutting and removal of trees, shifting of chartered utilities, provision of access roads and all other facilities required for the successful execution of the Work.
- (b) **Temporary Works**
The contractor shall have to execute all temporary works required to facilitate construction and the cost thereof shall be included in the overall lump sum quote. Suitable temporary arrangements have to be designed and necessary drawings developed to ensure that these remain safe during construction. These have to be subsequently dismantled and taken away by the contractor after construction.
- (c) **Incidental works**
In addition to above the contractor shall undertake various incidental works to complete the entire project successfully. The contractor shall consider incidental works while quoting the lump sum price. Some of the incidental works are listed below:
- (i) Restoration of existing roads, utilities, railway cables and services other than chartered/unchartered utilities dislocated on DFC alignment during construction of the bridges.
 - (ii) Testing of elements of structures for their structural conformity to the design and specification, if required, and preventive as well as corrective actions.
 - (iii) Traffic management around worksites.
 - (iv) Reinstatement of services (such as street lighting, signaling system, bus stand, footpath including kerb stone, boundary wall, horticulture work and any other work to bring the site to original position) with new materials (except electric/signal post which may be reused).
 - (v) Demolishing and reconstruction of Railway structures infringing the DFC alignment as directed by the *Engineer/Employer*.

- (vi) The Contractor shall obtain approval for work with or without traffic block in the existing Railway system from concern Zonal Railway authority/Employer/Interfacing Agencies and DFCC shall assist in obtaining such approvals.
- (vii) The Contractor shall be responsible for obtaining relevant certificates or clearance from local civil authorities viz. completion certificate, fire clearance etc, if required.
- (viii) The Permanent Works shall not infringe the existing running line of Indian Railways and SOD (Schedule of Dimension).
- (ix) Adequately properly designed and approved protective measures (Permanent or temporary) would be taken at locations where-in existing Railway structure is fully or partly affected due to execution of this work e.g. – Wing wall/Return walls, Guide bunds, floor, Drop walls, embankment and other structures.

The above list is not exhaustive.

4. **Inspection, Quality Assurance and Quality Audit-**

The contractor shall permit access by the DFCC, PMC (Employer's Representative) or its Quality Assurance Representatives and also to the Contractor's premises where the Works will be performed and will use reasonable endeavors to secure Rights to Access to the premises of its Sub-Contractors where the works will be performed, and allow the DFCC, PMC or its QA Representative to:

- (a) audit the Contractor's quality assurance system and its application to the works, including manufacture, development and raw materials and components provision.
- (b) inspect all parts of the works to the extent reasonably practicable to ensure that their quality meets the specifications; and
- (c) perform activities with respect to civil works such as, but not limited to, survey, installation, commissioning, acceptance and other construction and / or operational activities.

5. **General Requirements**

The bidder's design shall generally satisfy the following requirements:-

- (i) It shall ensure soundness of the structure, its durability.
- (ii) It shall ensure speedy construction.
- (iii) Contractor's proposal shall be accompanied by preliminary design and methodology statement.
- (iv) At the time of detailed design the contractor shall not deviate from **basic scheme comprising GADs and Employer's Requirements** here under.
- (v) Contractor shall bring in high level of standardization in the structures.

6. **Design Data**

Design data given hereunder, for Bridge Structures is based on Employers due diligence and Engineering.

Contractor shall use these data for preparing his proposal keeping in mind that he has to compulsorily follow the requirements stated herein and in the DFCC Specifications and elsewhere in the Contract Document.

**7. Investigations at Site
Topographical Survey**

Contractor shall carry out topographical survey along the alignment at the bridge site over the bridge portion and its approaches (based on the control points which will be made available by the Employer) to correctly locate the alignment, obtain cross section of river, locate pier/abutment locations juxtaposed to existing W.Rly. bridges on the d/s side, cross sections under approach embankments for requisite distance and carry out requisite modifications to GAD and submit them to the Employer through the Employer's Representative for their approval.

Geotechnical Investigation

The contractor shall have to take borings by double tube boring machine or take trial pits as the case may be at each substructure location prior to the commencement of the work to ascertain the subsoil strata.

Samples from the bore taken at each foundation shall be tested and analyzed in the laboratory approved by the Employer/Employer's Representative for establishing design parameters. Test such as standard penetration test, compression and shear test on undisturbed soil samples, Unconfined Compressive Strength (UCS), water absorption on rock sample etc., shall be carried out in conformity with the BIS specifications. The Contractor shall submit the entire data to the Employer/Employer's Representative along with his own/laboratory recommendations and obtain approval to the design parameters. In case of Rock a Factor of Safety (FOS) 5 shall be adopted to compute Safe Bearing Capacity of rock from U.C.S calculated as per IS 12070.

The cost of the above Survey and Investigations shall be included in the tendered amount. No payment will be made separately for the testing of soil and/or rock.

8. Design Parameters

8.1 Codes of Practice, Manuals etc.

Following Codes of Practice/ Manuals (current versions along with correction slips incorporated upto 28 days before the date of opening of the Bid.) shall be followed in the detailed design and construction of bridges under this contract :

- a) IRS Bridge Rules
- b) DFC Loading Standards
- c) IRS Code of Practice for Plain, Reinforced and Pre-Stressed Concrete general Bridge Construction (Concrete Bridge Code) second Revision – 1997.
- d) IR Manual on the Design and Construction of Well and Pile Foundations
- e) IRS Code of Practice for the Design of Sub-structures and Foundations Bridges (Bridge Sub-structures & foundation code).
- f) Indian Railways Schedule of Dimensions for BG
- g) DFC Schedule of Dimensions
- h) IRS Steel Bridge Code
- i) UIC 772/R – Specifications for Neoprene Bearings
- j) Indian Railways Bridge Manual
- k) Indian Railways Permanent Way Manual
- l) Indian Railways Works Manual
- m) IRC 18 - 2000
- n) IS 456 – Code of Practice for Plain and Reinforced Concrete

- o) IS 800
- p) IRC 83
- q) IS 2911 (all parts) Code of Practice for Design and Construction of Pile Foundations.
- r) IS 14593 – Design of Bored and Cast-in-situ piles Founded in Rock – Guidelines
- s) IRC-6 for Seismic Design Criteria
- t) IS 1343 – Code of Practice for Prestressed Concrete
- u) UIC 774 – 3 R –Track/Bridge Interaction

8.2 Material Specifications:

- a) Cement –
 - 33 Grade IS 269
 - 43 Grade IS 8041
 - 53 Grade IS 12269
 - Sulphate Resistant IS 12330
- b) Aggregates – IS 383
- c) Reinforcing Steel – IS 1786 (HYSD) Fe 415 (grade S 415) and Fe 500 (Grade S 500)
- d) Prestressing Steel –
 - Cold drawn indented wire - IS 6003
 - Low Relaxation stress relieved strands to IS 14268
- e) Structural Steel
 - Standard Quality IS 226
 - IS 432 Part I – Mild Steel Bar
 - Weld able Structural Steel IS 2062
 - Steel Tubes for Structural Purpose IS 1161
 - Mild Steel Tubes IS 1239
- f) IS 1852 - Rolling and Cutting tolerances for rolled steel products.
- g) Corrosion Protection of Steel Reinforcement - IS 9077 – Appendix B and Specifications.

For items not covered by any of the above Standards and specifications or DFCC Specification, sound Engineering practice and provisions in the design and provisions of relevant Codes of UIC, IRC, Bureau of Indian Standards, BS or Euro-code shall be referred. In this regard decision of the DFCC shall be final and binding. Exhaustive list of Codes and Specifications is given under DFCC Specifications which forms a part of the Bid Document of the Works Contract..

Approved list of suppliers of selected items is attached at Appendix- X.

8.3 Design Requirements

The designs shall be carried out confirming to Indian Railways Codes, Standards, Manuals, IRS and IS specifications of the materials listed above. Wherever one is required to make use of other codes and specifications preference shall be given to other codes listed above. For any issue not covered by the above codes the Contractor may take prior approval of the Employer for adopting the same.

8.3.1 Important design requirements are brought out below:

S N	Description	Requirement	Remarks
1.	Loading	DFC Standards – 32.5 tonne Axle Load (Loading Stds. in Annexure- I of this Section)	In addition wherever Footpath is provided a Live Load of 400 kg/sq. m. shall be considered on the footpath.
2.	Schedule of Dimensions	DFC Standards (in Annexure- I of this Section)	
3	Superimposed Loads	Superimposed loads comprising Track, Ballast shall be considered. In addition the weight of services to the tune of 1000 kg/RM shall be considered.	Track on Long Ballasted Welded Bridges Rails Ballast Cushion 350 mm Sleepers Mono-block Concrete Sleepers Wt per sleeper 350 kg Sleeper Spacing 600 mm Rails Running Rails 68 kg Guard rails UIC 60 kg
4.	Design Life	100 Years	
5.	Design Speed of Trains	125 kmph	
6.	Seismic Effects a)Seismic Zone b) Importance Factor	Zone III 1.5	
7.	Exposure	As indicated in Table- I	

	Condition		
8.	Temperature range	5 to 45 degree C	
9.	Superstructure Configuration	<p>(i) For bridges with overall lengths of each girder $\geq 15\text{m}$ – PSC Box Girders shall be adopted. (excluding those where PSC U Girders are envisaged in GADs and Table- I)</p> <p>(ii) For Bridges with overall length of each girder $< 15\text{m}$ but $\geq 11\text{m}$ PSC I / Tee Girders with cast in situ deck slab or multi-cell Precast PSC Hollow Core units placed side by side to form a deck shall be adopted.</p> <p>(iii) For bridges with overall length of each span $\leq 11\text{m}$ but $> 7\text{m}$ pre-tensioned PSC slabs (solid/ voided) are preferred.</p> <p>(iv) For bridges with overall length of each span $\leq 7\text{m}$ RC Slab/ RC Box are preferred.</p>	For Girder and Slab Bridges bridge spans shall be simply supported.

10.	PSC Box Girder Details and Dimensioning	<p>i) No external strands shall be allowed for permanent prestress.</p> <p>ii) All prestressed girders shall have spare cables laid to the profiles approved by the Employer. The number of spare cables shall be 4% of the cables required as per design, subject to a minimum of one cable per girder/ web. These cables shall be permitted to be removed fully or partly after the final stage of prestressing, if they are not required and holes grouted.</p> <p>iii) The provision for imparting 20% design prestress at a future date shall be made in the girders and suitable anchorages; bulkheads diaphragms etc. shall be constructed for the purpose. Arrangement for external prestressing shall be approved from the</p>	
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		<p>Employer.</p> <p>iv) Sheathing for post – tensioned superstructure shall be corrugated HDPE type as per IRC:18-2000.</p> <p>v) The ends of prestressing anchorages in case of post – tensioning shall be protected against corrosion.</p> <p>vi) Minimum thickness of web, bottom flange and top flange shall be as per provisions of IRS Concrete Bridge Code.</p> <p>vii) Minimum end diaphragm thickness shall not be less than thickness of web adjacent to the diaphragm</p>	
11.	Approach Transition System	Indicative Transition system in approach of bridges has been given in Section X. Behind Abutments and Wing walls backfill material shall be provided as per RDSO report GE-R- 50.	Transition system in approach of bridges shall be designed by the Contractor. Given drawing is only indicative.

12.	Deep Foundations	<p>RCC Cast in Situ Bored Piles to be adopted for Deep Foundations with a minimum dia of 1.2 m.</p> <p>Liners of 6 mm thick plates (to IS 2062) and 8mm Thickness wherever required and taken to refusal. The liners shall not be withdrawn and will form a part of permanent structure. However, their contribution in strength shall not be accounted for in the design.</p>	<p>The outer surface of Liners for top portion of 10 m shall be painted with Coal Tar Epoxy paint with total DFT of 140 microns.</p> <p>Special Cement such as SRC (IS 12330) to be used wherever sulphate or chloride contents are more than the allowable limits in the foundation strata.</p>
13.	Pile Cap Level	<p>i) In case of Tidal Rivers the bottom of Pile Cap shall be a minimum of 300 mm above High Tide level.</p> <p>ii) In case of perennial channels the bottom of Pile cap shall be a minimum 300 mm above LWL.</p> <p>iii) In case of channels which are dry in working season the Pile Cap shall be a minimum of 1.5 m below bed/ground level.</p>	
14.	Spacing between the piles.	<p>Following minimum spacing shall be provided between the centres of Piles :</p> <p>i) 2.5 x dia. of Pile for end</p>	

		<p>bearing piles in Rock.</p> <p>ii) 3.0 x dia of Pile for piles which are not end bearing in Rock.</p>	
15.	Depth of pile cap	Minimum depth of pile cap shall be $D/2$ where D is spacing between the piles in the direction of traffic.	
16.	Dimensions of Pile Cap	The plan geometry of pile cap shall be rectangular and shall ensure a minimum of 100 mm overhang beyond the edge of piles, shall provide for semicircular Cut and Ease Waters of the same depth as the pile cap.	
17.	Minimum embedment of Piles in Rock (Socketting) wherever piles are terminated in Rock.	<p>Minimum Embedment</p> <p>i) Rock SBC > 100 t/sq.m but \leq 200 t/sq.m. 3 x dia. of Pile.</p> <p>ii) Rock SBC > 200 t/sq.m. 2 x dia. of Pile.</p>	
18.	Open Foundations in other than rock for Piers, Abutments (excluding wing walls)	Minimum Founding Level shall be 3.5 m below the GL/Bed Level. The minimum is applicable after confirming the requirements of SBC and scour level as per the detailed design.	

	and cut off (drop) walls.		
19.	Open Foundations in hard rock for Piers, Abutments.	<p>Minimum Founding Level shall be such that any edge of the foundation is 1.0 m below the sound hard rock surface.</p> <p>In case hard rock is met with at bed level then the founding level shall be 1.5 m inside sound hard rock.</p> <p>Passive anchors 28 mm TOR shall be provided at 1.5 m spacing with 1 m in hard rock and 600 mm in foundation concrete. The anchors shall be inserted in Hard Rock after drilling holes and on insertion grouting the same with cement grout. Their contribution shall not be considered in design.</p>	
20.	RCC Box Culvert Bridges	Bottom slab of RC Box Bridges shall be laid on well prepared sub grade after laying a 100mm CC M 15 leveling course.	

21.	Flooring	For bridges with open foundations, wherever considered necessary by the Employer's Representative, and RC Box Culvert bridges, hand packed dry rubble flooring shall be provided on the channel bed for a length of 15 m on either side of the Centre Line of the Bridge or upto the end of the wing wall whichever is greater. A CC M 15 Drop Wall (minimum top width of 300mm and rear slope not steeper than 1:4) shall be provided at both ends of the flooring with foundation depth taken to a minimum of 2.5 m.	Stones for rubble flooring shall not be less than 255 mm in depth nor less than .02 cu.m. in volume and with minimum weight of 40 Kg. Rounded boulders shall not be used.
22.	Earthwork on Approaches	Earthwork on approaches to be carried out for a length of 50 m for bridges with overall lengths of less than 70 m and for a length of 100 m for bridges with overall length more than or equal to 70 m. The rear filling of abutments with hand packed boulders and riveting/pitching on earth slopes upto the end of wing wall/returns and 1 m beyond shall be carried out by the Contractor.	The specifications for earthwork and cross sections to be adopted shall be as per RDSO guidelines and DFCC Specifications.

		Stone masonry steps to climb down to the river bed shall be provided on the embankments slopes at all the four ends of each bridge.	
23.	Protection Works	CC M 25 retaining walls on open foundations shall be provided between the abutments on new bridges and existing Western Railway, bridges wherever required to ensure smooth flow of water. The valley formed between the embankments behind such walls will be lined with rubble along with a saucer drain and the water from such valleys shall be discharged through the retaining walls by provision of RC pipes of required diameter. Any other protection work on the upstream of new bridges such as protection bunds with revetment shall be carried out by the contractor.	

8.3.2 General Requirements of Bridge Structures

Following general requirements shall be adhered to in design and construction of bridges

SN	Description	Requirement	Remarks
1	Centre to Centre of Adjacent Tracks	6.0 m	In 'U' Girder it will be 8.7 m.
2	Width of Abutment		
	i) For bridges except PSC U Girder Bridges	13.6 m	
	ii) For PSC U Girder Bridges	18 m	
3	Footpath on Bridges		
	i) RC Box Culverts and Bridges with PSC U	No Footpath	

	Girder		
	ii) All other Bridges	900 mm wide Footpath along each track on the outside	
4	Width of Deck and Deck Configuration		
	i) For Girder Bridges (excluding PSC U Girder Bridges)	Individual girders under each track with overall deck width of 5700 mm for bridges with Footpath	For PSC U Girder Bridges, it shall be as per U Girder Design.
	ii) For Slab and Box Bridges without Overburden	For Bridges without Footpath 10.8 m (common for both tracks). For bridges with footpath 13.6 m	The abutment shall be common for both the tracks.
	iii) For Slab and Box Bridges with Overburden	As per the requirements.	
5	Plan size of Pier Caps	Pier Caps shall be adequately wide to provide sufficient space to accommodate ladders& OHE Mast Pedestals, facilitate inspection of bearings, provide gap between Girder ends to walk across (in case of Girder bridges) as well as future prestressing requirements.	
6	Superstructure Schemes		

	i) For overall length of each span from 5 m to 10 m	PSC/RCC Slabs or RC Box Culvert/ Single or multi-cell	PSC slabs shall be precast in units at properly laid out casting yards and launched thereafter.
	ii) For overall length of each span 12m and upto 15 m	PSC Girders – Precast I /Tee girders with Cast in Situ Deck slab complete for I girders and strip for Tee girders . PSC Hollow Core Units placed side by side forming the deck.	PSC Girders/ units shall be precast and launched
	iii) For overall length of each span 15 m and above.	PSC Box Girders or PSC U Girders wherever indicated in Table I	(i) PSC Box Girders - Precast in a properly designed and equipped casting yard with Single Pour and thereafter launched for Bridges comprising more than three spans (ii) PSC Box Girders - Cast in situ over scaffolding (in not more than

			<p>two stages) for Bridges comprising upto and including three spans except for cases where presence of water in the channel does not permit cast in situ work. If the Contractor desires he may choose to adopt precast girders for bridges upto and including three spans.</p> <p>(iii) PSC U Girders - Cast in situ over scaffolding in not more than two stages.</p>
7	Wearing Course on Deck	CC wearing course with M 35 Concrete and minimum thickness of 40 mm and a cross slope of 1 in 60 to be provided over the concrete decks of PSC girders /slabs/RC box culverts (This will be provided below the	

		ballasted portion of the track) except for RC Boxes with overburden.	
8	Drainage Spouts	75 mm dia HDPE spouts with grating to be provided at a spacing of 1.5 m through the end kerbs of the deck (or vertical through deck slab) with 100 mm projection beyond the outer face of the kerbing (or below the soffit of deck slab)	
9	Bearings	Elastomeric	To be placed on appropriate Pedestals.
10	Lifting arrangements for Girders and inspection platforms	Girders to be designed with locations for installing lifting jacks to satisfy the requirements of replacement of bearings and other maintenance operations. Inspection platform cantilevering out of Pier Caps with Steel railing (900 mm Height) and Ladder to be provided.	Steel Railing and ladder to specifications under Sr. no. 14 below.
11	Trolley refuges	To be provided at every 50 m or less spacing.	
12	Railing along the Footpaths on either side (wherever	Steel tubular railing of 1.2 m height with 50 mm GI – 'A' GR pipes 3 Nos	Steelwork other than GI Pipes shall be galvanized to

	footpaths are provided along the deck) and Trolley Refuge	threaded in IS 75 x 50 x 8 Angle Posts at 1.5 m C to C fixed to the kerbing by 6 mm MS (100mm x 100 mm) plate and 4 nos 12.5 mm Holding down bolts duly anchored in ht Kerbing.	100 micron and painted with one coat of Zinc Chromate Primer followed by two coats of Synthetic Enamel of Selected Colour. Pipes to be coupled by std. couplers.
13	Ladder to climb down to Pier Top for Inspection	Each Pier shall be provided with a ladder 350 mm wide to climb down with 20 mm dia. MS Round Rungs at 250 mm welded to flats 40mm x 6 mm TK	Steelwork shall be galvanized to 100 micron and painted with one coat of Zinc Chromate Primer followed by two coats of Synthetic Enamel of Selected Colour
14	Anticorrosive Treatment to reinforcement	Treatment developed by CECRI Karaikudi	Refer to Section on DFCC Specifications
15	Laps in reinforcement	Laps in reinforcement shall be provided as per codal provisions. Welding of Reinforcement bars shall not be permitted.	
16	RC Pedestals with recess for OHE mast installation	To be provided on both sides separately for each track at a spacing of 45	

		m (or as decided by the Employer) at the top of Pier cap of nearest pier (interspacing not more than 45 m)	
17	Painting of foundations and substructure and top of wearing course on Bridge Deck	Part of foundation (excluding the bottom face) and substructures in contact with soil upto GL/Bed Level, rear sides of abutments and wing walls, side faces of pile caps and top of pile caps where these get embedded in soil, top of slabs/RC Box culverts with overburden, soil face of outer walls of Box culverts, wearing course on Bridge Decks shall be painted with one coat of primer and two coats of approved coal tar epoxy paint.	
18	Painting of superstructure and part of substructure exposed to atmosphere	Epoxy Phenolic IPN coating or CECRI integrated four coat system	
19	Painting of Flood Gauges	Flood gauges with marking of Danger Level and HFL to be painted on each of the abutments one on each side and on every fourth pier in case	

		of multispans bridges as per provisions of IR Manuals	
20	Provision of Bridge Plaque	Concrete/Stone Bridge Plaques with engraving of the details as per IR Manuals to be provided on each pier.	
21	Bridge Number	Bridge Number to be painted on a triangular CC stone provided at the abutment copings of each bridge with direction of flow arrow. (one at each end)	
22	Bridge Name Board	Bridge Name Board with Name of River/Nallah, Spanning arrangement and km to be provided on angle posts at both ends of each bridge as per the standards laid down in IR Manuals	

8.3.3 Concrete Grades

- For Wearing course : M 35
- For CC work : M 25
- For leveling course : M 15
- For others as per IRS Concrete Bridge Code w.r.t. 'Exposure Conditions' specified for each bridge in Table I.

8.3.4 Tolerances

All the works covered under this Contract have to be executed according to shapes, lines, levels, plans and dimensions shown on the approved drawings. Tolerances given below are only a means to convey to the Contractor the Maximum deviations permissible in execution of some of the items of work and should not, therefore be construed as relaxation from the basic objective defined above.

PSC Superstructure

PSC Box Girder

Width of Web	:	± 6 mm
Depth of Bottom Slab	:	± 6 mm
Depth of Top Slab	:	± 6 mm
Overall depth of Girder	:	± 10 mm
Overall width of top slab	:	± 15 mm
Overall width of bottom slab	:	± 15 mm
Thickness of Diaphragm	:	± 15mm
Overall length of precast girder	:	± 20 mm
Position of tendons in vertical plane:	:	± 5 mm

PSC I / TEE Girder

Width of Web	:	± 6 mm
Depth of Bottom bulb	:	± 6 mm
Depth of Top Slab	:	± 6 mm
Overall depth of Girder	:	± 10 mm
Thickness of Diaphragm	:	± 15mm
Overall length of precast girder	:	± 20 mm
Position of tendons in vertical plane:	:	± 5 mm

Sectional widths of RCC members other than Pile Cap: +10mm(-) 3 mm

Sectional width and depth of pile cap : ± 15 mm

Positional variations in centroid of piers in both directions: 20 mm

Verticality of Piers/substructures : 3 mm for any 1.5 m height
10 mm for entire height

9. Methodology

Following methodologies are envisaged for important components of bridges :

- a) Out of the bridges under the scope of this work more than 50% comprise of approximately 19.8 m (c to c of pier) spans. Out of these 12 bridges consist of more than 3 spans. At all these bridges the Contractor shall have to establish, at each bridge site, casting yard which are well designed and well equipped for precasting of the PSC Box Girders in single pour. Requisite launching girders (**MINIMUM OF TEN**) will also have to be fabricated and erected to carry out the launching of these girders.
- b) For bridges with three or less number of approximately 19.8 m (c to c of pier spans) and PSC U Girders the Contractor may choose to cast the PSC Girders in situ. However, the casting shall be planned in not more than two stages.
- c) For precast PSC I/ Tee Girders and PSC Slab units/ hollow core units, the Contractor shall provide a well designed and well equipped casting yard at each of the bridge sites and make arrangements for launching of these girders/slab units by launching girders or cranes of requisite capacity.
- d) For RC slab and RC Box bridges cast in situ construction to be adopted.
- e) Bored and cast in situ RC piles shall be constructed by deploying adequate number of conventional or hydraulic rigs. The latter may be difficult to deploy on most of the bridge sites due to poor access. **In marine conditions particularly in tidal rivers particularly Vaitarna (North) and Vaitarna (South) Contractor may be required to deploy Jack Up platforms for piling.**

10. TESTING

The cost of following tests and tests specified in DFCC Specifications shall be borne by the contractor and no extra payment will be made to the contractor.

10.1 Prestressed Concrete Bridge Girders:

As per Clause 18 of IRS Concrete Bridge Code

- i. In case of PSC Girders –Load testing of one span of each bridge for bridges with three identical spans (twin track) or more.
- ii. In case of PSC Girders, PSC Slabs, RC slabs – Load testing of 1 span in a group of three aggregate spans (twin track) of identical design.

10.2 Bored and cast in situ RC Piles

The pile capacity shall be confirmed by pile load test as per IS – 2911(Part IV)

- a) The vertical capacity of pile shall be verified by carrying out initial load testing on Test Piles in non-working areas, in the vicinity of the bridges site. These piles shall be tested for 2 times the design load.
- b) One Test pile shall be tested at each bridge site. For Important bridges whenever there is a substantial change in soil strata, one more test pile shall be tested. The decision of Employer's representative, whether there is a substantial change in strata shall be final.
- c) Routine Load test - On two piles in each bridge or 2% of the total no. of piles on a bridge, whichever is more to be carried out after establishing proper correlation with load test specified in (a) above.
- d) In addition, Pile Integrity test shall be carried out on 20% of the piles on each bridge with pile foundation. The piles to be tested shall be decided by the Employer's Representative. The decision of Employer shall be final in this regard.

10.3 Tests on materials and components

- i) Testing of Cement
- ii) Testing of aggregates
- iii) Testing of concrete
 - a. Tests of fresh concrete
 - b. Tests on hardened concrete
 - c. Flexure test
- iv) Tests on Elastomeric Bearings: Tests on Elastomeric bearings shall be carried out by the Contractor at manufacturer's facility with a frequency one bearing per every 50 bearings of the same type. Results shall be submitted to Employer's Representative.
- v) Tests on HTS strands : Each lot of HTS strands shall be accompanied by manufacturer's test certificate which shall be submitted to Employer's Representative
- vi) Tests on HYSD Reinforcement: Each lot of HYSD reinforcement shall be accompanied by manufacturer's certificate which shall be submitted to Employer's Representative

Contractor shall establish well equipped laboratories at all the bridge sites where Prestressed concrete superstructure is envisaged for conducting tests under (i) to (iii) above.

In case of Tests which are carried out at Manufacturer's facility or at other laboratories the Contractor shall make requisite arrangements for monitoring of these tests by the Employer or Employer's Representative as and when instructed by them. The cost of these arrangements including travel etc. shall be borne by the Contractor.

10.4 Contractor's Documents

Contractor's documents as follows shall be submitted to the Employer:

- (i) Information collected during topographic survey data, geo-tech investigation report etc.,
- (ii) Revised GADs based on Contractor's conceptual scheme.
- (iii) Design basis report, calculations and detailed drawings good for construction.
- (iv) Designs and drawings of temporary arrangements and enabling works
- (ii) Test procedures followed during construction for materials and components
- (iii) Test procedure proposed to be followed for testing of completed structures.
- (iv) Quality Assurance Plan, Quality Assurance Manual & Maintenance Manual
- (v) Completion drawings of bridges.
- (vi) Any other documents so specified in the tender documents.

Documents shall be submitted to the DFCC/ PMC for review together with a notice as envisaged in the Condition of Contract. DFCC/ PMC reserves the right to discuss and correct the design / calculations as per Codal requirements. Such changes if required to be carried out shall be at the cost of Contractor and no demand for payment shall be entertained.

11 Survey Equipment

The contractor should provide the survey equipment and other accessories as per the instructions of PMC as and when required. He should also provide all necessary help as required by the Employer's Representative for checking the works, whenever required.

Table I

S N	Br. no	Location along W.Rly. Km/TP	Name of River	Classification of bridge	Span arrangement of proposed bridge	Proposed Super Structure Type	Proposed Foundation Type	Expected Founding Strata	Approximate Land width Available in river in Metres (From center of existing Rly tracks)	Exposure condition
1	92	69/2-16	Vaitarna (S)	IMP	20 x 19 m	PSC Box	Pile	Hard Rock	23	Very severe
2	93	70/12-26	Vaitarna (N)	IMP	23 x 19 m	PSC Box	Pile	Hard Rock	61	Very Severe
3	98	74/8-10	Juhi	MAJ	3 x 7.1m	RC Slab	Open	Hard Rock	24.7	Severe
4	99	74/24-26		MAJ	3 x 6.1 m Skew	RC Slab	Open	Hard Rock	25.91	Severe
5	115	82/6-8		MAJ	3 x 7.1 m	RC Box	-	-	35.05	Severe
6	119	83/32-84/2		MAJ	4 x 9.4 m	RC Slab	Open	Hard Rock	30.48	Severe
7	125	88/2-4		MAJ	1 x 19.8 m	PSC Box	Open	Hard Rock	33.2	Severe
8	126	88/24-26	Jambala	MAJ	3 X 7.1 M	RC Slab	Open	Hard Rock	25.91 To 27.74	Severe
9	135	94/18-20	Dudh	MAJ	1 X 19.8 m	PSC U Girder	Pile	Hard Rock	38.1	Severe
10	136	94/20-22	Kaulgaon	MAJ	2 X 14.2 m	PSC I	Pile	Hard Rock	38.1	Severe
11	139	96/16-18	Movara	MAJ	3 x 6.5 m	RC Box	-	-	38.1	Severe
12	143	99/10-12	Amroli	MAJ	5 X 19.8 m	PSC U Girder	Open	Hard Rock	51.56	Severe
13	144	99/24-26	Juhi	MAJ	3 X 14.14 m	PSC I	Pile	Hard Rock	53.35	Severe
14	163	113/22-26	Kapse	MAJ	3 X 19 m	PSC Box	Pile	Hard Rock	18.29	Very Severe
15	166	118/2-4	Dande	MAJ	3 X 19 m	PSC Box	Pile	Hard Rock	17.68	Very Severe
16	169	DIVERSION		MAJ	4 X 19.8 m	PSC Box	Open	Hard Rock	Nil	Very Severe
17	173	DIVERSION	Ban Khadi	MAJ	5 X 14.2 m	PSC I	Open	Hard Rock	Nil	Severe
18	182	127/24-26	Dhobi Khadi	MAJ	1 X 19.8 m	PSC Box	Open	Hard Rock	43.09	Severe
19	192	133/18	Gholv	MAJ	2 X 19.8 m	PSC	Open	Hard	70.48	Severe

PMC Tender for Important & Major Bridges (Vaitarna-Utran Section) -Western Corridor

S N	Br. no	Locati on along W.Rly. Km/T P	Name of River	Clas sific ation of bridge	Span arrangement of propos ed bridge	Propo sed Super Structure Type	Propo sed Found ation Type	Expec ted Found ing Strata	Approxim ate Land width Available in river in Metres (From center of existing Rly tracks)	Expos ure condi tion
		-20	ad		m	Box		Rock		
20	203	138/8-10	Juhi	MAJ	2 X 19.8 m	PSC Box	Open	Hard Rock	30.48 To 42.98	Severe
21	228	148/6-10	Sanjan	MAJ	7 X 19 m	PSC Box	Open	Hard Rock	121	Severe
22	230	149/28-30	Tumbe	MAJ	1 X 19.8 m	PSC U Girder	Open	Hard Rock	65.98	Severe
23	239	153/28-30	Gunde r	MAJ	1 X 19.8 m	PSC Box	Pile	Hard Rock	51.82	Severe
24	263	162/26-28	Daroth a	MAJ	2 X 19.8 m	PSC Box	Open	Hard Rock	49.07	Severe
25	264	163/4-6	Koruma	MAJ	2 X 19.8 m	PSC Box	Open	Hard Rock	70.1	Severe
26	284	176/6-8	Bhil Khadi	MAJ	1 X 19.8 m	PSC Box	Pile	Hard Rock	43.78 To 32.52	Severe
27	287	177/18-26	Kolak	MAJ	1 X 3.835 + 9 X 19 + 1 X 7.05 m	PSC Box + RC Slab	Open	Hard Rock	71.91	Very Severe
28	288	178/4-8	Dobhi Khadi	MAJ	2 X 19.8 m	PSC Box	Pile	Hard Rock	71.91 To 41.34	Severe
29	304	184/28-30	Ganga ji	MAJ	3 X 19 m	PSC U Girder	Pile	Hard Rock	74.68 To 89.31	Severe
30	318	191/30-32		MAJ	3 X 6.1 m	RC Box	-	-	42	Severe
31	325	DIVERSION	Wanki	MAJ	4 X 19.8 m	PSC Box	Pile	Hard Rock	Nil	Severe
32	332	Diversi on	Auranga	IMP	8 X 19.8 m	PSC Box	Pile	Hard Rock	Nil	Severe
33	336	202/4-6	Kolai	MAJ	2 X 19.8 m	PSC U Girder	Pile	Hard Rock	42.68To 35.37	Severe
34	339	204/6-8	Kamp ari	MAJ	2 X 19.8 m	PSC U Girder	Pile	Hard Rock	51.83	Severe
35	340	205/4-6	Bamm	MAJ	2 X 19.8 m	PSC U Girder	Pile	Hard Rock	136.28	Severe
36	344	208/16-18	Khadiy a Khadi	MAJ	1 X 14.45 m	PSC U Girder	Pile	Hard Rock	36.59	Severe

PMC Tender for Important & Major Bridges (Vaitarna-Utran Section) -Western Corridor

S N	Br. no	Locati on along W.Rly. Km/T P	Name of River	Clas sific ation of bridge	Span arrangement of propos ed bridge	Propo sed Super Structure Type	Propo sed Found ation Type	Expec ted Found ing Strata	Approxim ate Land width Available in river in Metres (From center of existing Rly tracks)	Expos ure condi tion
37	352	211/14 -16	Orgam	MAJ	1 X 19.8 m	PSC Box	Pile	Hard Rock	29.88	Severe
38	358	213/23 -25	Kaveri (S)	IMP	10 X 19 m	PSC Box	Pile	Hard Rock	73.17	Very Severe
39	359	214/3- 11	Kaveri (N)	IMP	11 X 19 m	PSC Box	Pile	Hard Rock	23.67	Very Severe
40	368	218/0- 11	Ambica	IMP	15 X 19.134 m	PSC Box	Pile	Hard Rock	21.34	Very Severe
41	369	219/3- 5	Vangari	MAJ	4 X 13.4 m	PSC I Girder	Pile	Hard Rock	28.96	Severe
42	370	219/11 -13		MAJ	3 X 13.4 m	PSC I Girder	Pile	Hard Rock	19.81	Severe
43	372	220/7- 9		MAJ	4 X 13.4 m	PSC I Girder	Pile	Hard Rock	47.86	Severe
44	387	230/0- 1	Kanai	MAJ	3 X 19 m	PSC U Girder	Pile	Dense Sand	42.07	Severe
45	400	238/5- 11	Poorna (S)	MAJ	9 X 19 m	PSC Box	Pile	Dense Sand	21.34	Very Severe
46	401	238/29 -23 9/1	Poorna (N)	IMP	18 X 19 m	PSC Box	Pile	Dense Sand	19.81	Very Severe
47	405	240/11 -15	Khariya	MAJ	4 X 19 m	PSC Box	Pile	Dense Sand with pebbles.	40.94	Severe
48	411	242/17 -19	Sagara	MAJ	2 X 19.8 m	PSC Box	Pile	Dense Sand	45.72 To 12.19	Severe
49	417	249/11 -21	Mindhola	IMP	13 X 19.2 m	PSC Box	Pile	Dense Sandy Gravel	21.34	Severe
50	419	251/3- 5	Mithi Khadi	MAJ	1 X 19.8 m	PSC Box	Pile	Conglomora te	25.3	Severe
51	422	252/13 -15	Hanuman Khadi	MAJ	1 X 19.8 m	PSC Box	Pile	Dense Sandy Gravel	65	Severe

PMC Tender for Important & Major Bridges (Vaitarna-Utran Section) -Western Corridor

S N	Br. no	Locati on along W.Rly. Km/TP	Name of River	Clas sific ation of bridge	Span arrangement of proposed bridge	Propo sed Super Structure Type	Propo sed Found ation Type	Expec ted Found ing Strata	Approxim ate Land width Available in river in Metres (From center of existing Rly tracks)	Expos ure conditi on
52	428	DIVERSION		MAJ	2 X 19.8 m	PSC Box	Pile	Dense Sand with pebbles.	Nil	Severe
53	440	DIVERSION		MAJ	2 X 19.8 m	PSC Box	Pile	Congl omora te	Nil	Severe
54	442	DIVERSION		MAJ	3 x 14.2 M	PSC I Girder	Pile	Congl omora te	Nil	Severe

SECTION – 5
Terms of Reference

Section – 5

Terms of Reference For Project Management Consultant

1.0 Objective

- 1.1 The objective of this consultancy contract is to engage Project Management Consultant (PMC) for the project (as defined in para 2 of Instruction to Bidders in **Section 1** of this document).
- 1.2 The Project Management Consultancy will broadly comprise of (i) supervision of the construction Works, (ii) quality checks, (iii) approval to enabling works, (iv) certifying of work with reference to quality, tolerances and adherence to approved drawings, (v) approval of founding depths of substructure, (vi) certification of IPC (Interim Payment Certificate) and final payment certificates, (vii) monitoring progress, (viii) submission of various reports to DFCC, (ix) safety and environmental checks.

2.0 Strategy for Implementation of the project:

- 2.1 One Design and Build (Lump Sum) contract as per following is envisaged for this project:

“Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .”

The tenders for the Contract have already been invited and opened. The term Design and Build Contract shall mean the above defined contract through out this tender document.

- 2.2 The Role of PMC to be engaged under this contract and scope of consultancy services are given in **Para 3** below.
- 2.3 All executive, technical and financial powers will be exercised by DFCC. PMC will obtain DFCC's approval for all matters that lie within his scope of services. PMC will guide and supervise the implementation of the project within the approvals obtained from DFCC.
- 2.4 DFCC may appoint Independent Engineers for quality audit. The Independent Engineers will report directly to DFCC,

3 **Role of PMC & Scope of Consultancy Services:** The role of PMC and scope of consultancy services shall be as given below:

- 3.1 **PMC's duties and responsibilities will in principle comprise the following:**
- i) Supervision of day to day work including quality and quantity. This shall include all ancillary works such as enabling works, utility shifting, tree cutting, dismantling of existing railway structures etc.

- ii) To hold site review meeting and review the Contractor's Programme of Work.
- iii) Approving contractor's design of enabling works.
- iv) To inspect the record of Contractor's personnel and equipment
- v) Certification, determination, instruction, opinion or evaluation of disputes
- vi) Superintendence of work as directed by the DFCC from time to time till Final Bill is paid and Defect Liability period is over.
- vii) To instruct the Contractor to remove unsuitable personnel from site of work.
- viii) To submit recommendations to DFCC with reference to proposals of additional work and/or variations after obtaining the details from the Contractor.
- ix) To submit recommendations to DFCC with reference to request for extension of time received from the Contractor.
- x) Certification of Contractor's Interim Payment and Final Payment applications.
- xi) Safety, health and environment monitoring.
- xii) Maintenance of all relevant records.
- xiii) To act as Employer's Representative as defined in the tender for Design & Build Contract and shall have all the rights, duties and liabilities of Employer's Representative as provided for in the tender for Design and Build Contract subjected to the para 2.3 above of this section.

DFCC's duties and authority will in principle comprise the following:

- (i) To approve Contractor's Detailed Design and Drawings of the Bridges.
- (ii) Payment of the Contractor's Bills
- (iii) Granting extension of time to the Contractor
- (iv) Ordering suspension of work
- (v) Instructing additional work and / or variations in items.
- (vi) To supervise functioning of PMC and monitor services rendered by them.

3.2 PMC shall summon all parties concerned to the first site meeting where he shall decide upon the future meetings. It is the duty of the Contractor or his Representative to participate in the site meetings. The purpose of the Site meetings is to coordinate the various work components with the Contractor, to register the time in relation to the Programme and to record agreements made.

3.3 The quality of work is of paramount importance. PMC shall coordinate certification of the quality of work. PMC shall do the quality check and shall ensure that Quality Assurance Plan of the Design & Build Contracts is effectively implemented by the Design & Build Contractors. PMC and DFCC shall be entitled, during manufacture, fabrication and preparation at any places where work is being carried out, to inspect, examine and test the materials and workmanship, and to check the progress of manufacture, of all Plant and Materials to be supplied under the Contract. The Contractor shall give them full opportunity to inspect, examine, measure and test any work at site or wherever carried out.

PMC shall have overall responsibility in Quality matters. This will also include ensuring that the work is executed as per the approved drawings and specifications in all respects.

- 3.4 PMC will co-ordinate, review / monitor the efforts of the contractors to execute the work keeping all the environmental issues in view as applicable under the various laws of the land. PMC will conduct required environmental checks and also take steps to suitably control adverse social and environmental impact of the project. PMC will scrutinize Safety, Health and Environment Management Plan submitted by the Contractor and after requisite modifications obtain the approval of DFCC and ensure its implementation. PMC shall monitor and be responsible for the compliance with the conditions of Safety, Health and Environment manual (as given at para 6 of Employer's Requirements-Construction in the Tender of Design & Build Contract) by the Contractor
- 3.5 PMC will coordinate, review / monitor the efforts of the contractors and undertake construction / erection supervision at various stages of construction to ensure the quality of work and adherence to standards and technical specifications. PMC will monitor the progress of the work and keep DFCC informed about the progress and impediments, if any, in the progress of work. PMC will also bring out the status of progress with reference to prescribed milestones.
- 3.6 Monthly progress reports shall be prepared by the Contractor and submitted to the PMC in six copies. The first report shall cover the period up to the end of the calendar month after that in which the Commencement Date occurred; **reports** shall be submitted by the Contractor **monthly** thereafter, each within 14 days of the last day of the period to which it relates. Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:
- (a) photographs and detailed descriptions of progress, including each stage of design, procurement, manufacture, delivery to Site, construction, erection, testing and commissioning;
 - (b) charts showing the status of Construction Documents, purchase orders, manufacture and construction;
 - (c) for the manufacture of each main item of Plant and Materials, the name of manufacturer, manufacture location, percentage progress, and the actual or expected dates of commencement of manufacture, Contractor's inspections, tests and delivery;
 - (d) records of personnel and Contractor's Equipment on Site;
 - (e) copies of quality assurance documents, test results and certificates of Materials;
 - (f) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and publications relations; and
 - (g) comparisons of actual planned progress, with details of any aspects which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome such aspects.

The Contractor will also submit reports as per para 6 & 7 of Employer's Requirements-General of Design and Build Contract. PMC shall **review these Reports** and prepare **PMC's Monthly Report** in the format to be specified by DFCC and submit the same to DFCC along with Contractor's Report **within 7 days** of the submission of the report by the Contractor.

3.7 Conflict and Change Management:

- (i) Any disputes with regard to works being executed by the contractor shall be resolved in the most amicable manner in accordance with the provisions of the contract.
- (ii) The procedure for any variations shall be established in the shortest possible time duly coordinated with the contractor and DFCC.
- (iii) The PMC's functional responsibility is to ensure expeditious settlement of claims, grant of extension, and dealing with liquidated damages.

3.8 PMC will certify the Interim Payment Certificates and Final payment Certificate submitted by the Contractor based on the provisions of the Works Contract and submit these to DFCC for approval and release of payment. The salient features of the procedure are as below:

3.8.1 No amount will be certified until the DFCC has received, and approved, the performance security from the Contractor as per the provisions of Works Contract. Thereafter, the PMC shall, within 28 days of receiving a statement and supporting documents, deliver to DFCC with a copy to the Contractor an Interim Payment Certificate showing the amount which the PMC considers to be due; if no payment is considered to be due, the PMC shall promptly notify the Contractor accordingly. Except that the PMC shall not be bound to certify any payment if the net amount to be certified (after retention and other deductions) would be less than the minimum amount of Interim Payment Certificates (if any) specified in the Works Contract.

An Interim Payment Certificate shall not be withheld on account of:

- (a) Defects: if any thing supplied or work done by the Contractor is not in accordance with the Works Contract, the cost of rectification or replacement shall be deducted by the PMC from any amount otherwise due;
- (b) part (only) of the payment applied for being disputed: in such case, a payment certificate shall be issued for the undisputed amount.

PMC may in any payment certificate make any correction or modification including those arising out of deficiencies noticed in any of previous certificates against which payment has been effected.

3.8.2 Initial Payment against IPC submitted by the Contractor

- (i) After preliminary scrutiny and certification by the PMC, payment of 80% of the certified interim amount shall be made by DFCC within 48 hrs of the submission of IPC by the Contractor. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the PMC's Chief Resident Engineer after detailed check and scrutiny.
- (ii) Next 80% interim payment shall be made only after 100% payment of preceding interim payment certified has been completed, and
- (iii) DFCC shall pay the amount certified in the Final Payment Certificate within 56 days from the date of issue of the Certificate.

3.8.3 Certification by PMC

PMC shall follow following procedure for detailed check of IPC submitted by the Contractor:

- (i) 100% test check by Assistant Resident Engineer (Supervisor/ technical assistant) of the PMC.
- (ii) 20% test check by Resident Engineer of PMC
- (iii) 5% test check of every alternate IPC by Chief Resident Engineer.

PMC will then advise the Employer to carry out any test check, if deemed necessary by the Employer before certifying the IPC. Defects noticed during such test check by employer, if any, shall be considered deficiency in the service of PMC. PMC will then recheck the other parts of the work done and covered by the IPC for similar defect.

3.8.4 Final Payment Certificate :

Not later than 56 days after the issue of the Performance Certificate, the Contractor shall submit to the PMC six copies of a draft final statement with supporting documents showing in detail, in a form approved by the DFCC:

- (a) the value of all works done in accordance with the Contract, and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If PMC disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the PMC may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the PMC the Final Statement as agreed.

If, following discussions between PMC and the Contractor and any change to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, PMC shall deliver to DFCC (with a copy to the Contractor) an Interim Payment Certificates for those parts of the draft final statement which are not in dispute. The dispute may then be resolved under the provisions of the Works Contract in which case the Contractor shall then prepare and submit to DFCC (with copy to PMC) a Final Statement in accordance with the outcome of the dispute.

When submitting the Final Statement, the Contractor shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all monies due to the Contractor under the Contract. Such discharge may state that it shall become effective only after payment due under the Final Payment Certificate has been made and performance security has been returned to the Contractor.

The Employer's Representative shall issue to the Employer, with a copy to the Contractor, the Final Payment Certificate within 28 days after receiving the Final Statement and written discharge stating:

- (a) the amount which is finally due, and
- (b) after giving credit to the DFCC for all amounts previously paid by the DFCC and for all sums to which the DFCC is entitled, the

balance, if any, due from the DFCC to the Contractor or from the Contractor or to the DFCC as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with the provisions of the Works Contract, PMC shall request the Contractor to do so. If the Contractor fails to make such an application within a period of 28 days, PMC shall issue the Final Payment Certificate for such amount as he considers to be due.

3.9 PMC will process Variations and submit them for the approval of DFCC as per the provisions of Works Contract.

3.9.1 **Variations** may be initiated by PMC at any time during the Contract Period, either by instruction or by request to the Contractor to submit a proposal.

The Contractor shall not make any alteration and/or modification of the Works, unless and until PMC notifies approval to a variation issued by DFCC. If the Construction Documents or Works are not in accordance with the Contract, the rectification shall not constitute a Variation.

3.9.2 **Variation Procedure:** If PMC requests a proposal, prior to instructing a Variation, the Contractor shall submit as soon as practicable:

- (a) a description of the proposed design and/or work to be performed and a programme for its execution,
- (b) the Contractor's proposal for any necessary modifications to the programme. And
- (c) the Contractor's proposal for adjustment to the Contract Price, Time for Completion and/or modifications to the Contract.

PMC shall, as soon as practicable after receipt of such proposals, forward the same to DFCC and notify its approval, rejection or comments to the Contractor.

If a Variation is approved, PMC shall proceed, in accordance with provisions of the Works Contract, to agree or determine adjustment to the Contract Price, Time for Completion and Schedule of Payments. The above shall be communicated to DFCC seeking its approval and on receipt of the approval or otherwise the same shall be notified to the Contractor by the PMC.

3.10 PMC will process Extension of Time within the provisions of the Works Contract and submit their recommendations to DFCC.

3.11 PMC shall have no authority to relieve the Contractor of any of his duties, obligations or responsibilities under the Works Contract. Any proposal, inspection, examination, testing, consent, approval or similar act by the PMC (including absence of disapproval) shall not relieve the Contractor from any responsibility, including responsibility for his errors, omissions, discrepancies, and non-compliance with the provisions of the Works Contract.

The Employer's Representative shall copy to the Employer all communication given or received by him in accordance with the Contract.

3.12 PMC will assist the DFCC for all coordination work with state governments, local bodies, municipalities and government agencies in connection with the work.

3.13 PMC will assist the DFCC in keeping the Commissioner of Railway Safety (CRS), Government of India and other statutory authorities informed about project design / construction, wherever required and obtaining intermediate / final approvals as required.

3.14 PMC will supervise testing and acceptance of material, work components and completed work. **For taking over of completed works under the Works Contract Each Bridge shall be an entity with reference to the taking over certificate.**

The Contractor may apply by notice to the PMC for a Taking-Over Certificate not earlier than 14 days before the Works or Section (as the case may be) will, in the Contractor's opinion, be complete and ready for taking over. If PMC is of the opinion that the work is not yet complete he shall communicate his decision to the Contractor within 7 days of the receipt of the said application. In case the PMC considers that the work is completed he shall submit the Contractor's notice to DFCC along with his remarks seeking DFCC's approval. On receipt of DFCC's decision PMC shall communicate the same to the Contractors ensuring that this process is completed within 21 days of the receipt of Contractor's application. In case DFCC approves the completion the PMC within 28 days after the receipt of the Contractor's application:

- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract (except for minor outstanding work that does not affect the use of the Works of Section for their intended purpose) including passing the Tests on Completion; or
- (b) reject the application, giving his reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued: the Contract shall then complete such work.

If the PMC fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days and if the Works or Section (as the case may be) are substantially completed in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period. DFCC shall hold the PMC responsible for such delays in communication.

3.15 PMC will design management information system for management of the project and generate financial, technical and managerial reports for monitoring / management of the project. PMC will use modern management tools and provide and update various charts / statements as required by DFCC.

3.16 PMC will coordinate, review and monitor the efforts of the contractors in removal of defects during the period of one year (Defect Liability Period) beyond completion of work.

3.17 PMC will do the proof checking of As Built Drawings by the Design & Build Contractor and will certify these.

3.18 Notwithstanding anything contained above, if in the opinion of the PMC an emergency occurs affecting the safety of life or of the works of adjoining property, he may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things which may, in the opinion of the PMC, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of DFCC, with any such instruction of the PMC. PMC shall determine an addition of the Contract Price, in respect of such instruction and forward the same to the DFCC for his approval. On receiving the approval the PMC shall notify the Contractor

4. Commencement and Duration of Consultancy Services.

The services, to be offered by Project Management Consultant, depend upon execution contracts. As such the consultancy services shall commence from the day of award of the first execution contract. However, if due to any unavoidable circumstance, award of execution contract gets delayed, then client shall not be liable to compensate the consultant.

PMC shall be responsible for project management for a period up to one year beyond the date of completion of the work (end of Defect Liability Period) for Design and Build Contract. The estimated duration of consultancy services is a period of **3 ½ years** from the date of award of consultancy contract.

5. Obligation of Consultant

All technical, financial and contract management powers will be exercised by the DFCC. The obligation of PMC will be to guide and supervise the implementation of the project within the approvals obtained from the DFCC. PMC will obtain approval of the DFCC in all matters pertaining to their scope of services.

6.0 Responsibilities of PMC:

The following will be the responsibilities of PMC.

6.1 PMC shall at all times exercise all reasonable skill, care and diligence, in the discharge of his duties. PMC shall also be responsible for the accuracy and completeness of his works.

6.2 PMC will be responsible to ensure that the goods and services used on the project are appropriate, suitable and comply with specifications. It is also essential that PMC is and remains demonstrably impartial in the performance of its duties.

6.3 In performance of all services, PMC shall function in close coordination with the DFCC.

6.4 The functions /activities of PMC will be monitored by the DFCC.

6.5 Though the Independent Engineers may be appointed by DFCC for quality audit, PMC shall have overall responsibility in Quality matters.

6.6 PMC shall maintain full records relating to all aspects of the work covered by the project. Such records shall be made available at all times to DFCC for inspection.

Mere acceptance by DFCC shall not relieve PMC of their professional obligations to correct any errors in their work at their own cost.

6.7 PMC will assist DFCC for obtaining necessary (including environmental) approvals as required from Local authorities/ State Governments / Govt. of India PMC shall monitor the progress in these matters and report to the DFCC.

6.8 All plans, drawings, engineering specifications and similar materials and any data and all records or documents pertaining to the work, including soft copies thereof, shall be treated as confidential by PMC and shall not, with out written consent of DFCC, be made available to any person and shall be delivered to the DFCC upon completion of the work and shall become the property of the DFCC. However, PMC may retain, for his own records, copies of the said plans and documents.

7.0 Key Deliverables:

Broad key Deliverables for the activities are given below. The exhaustive list of key Deliverable along with the date of submission will be mutually decided after contract is concluded.

Key Deliverables:

SN	Key Deliverable	Date of Completion (D is date of commencement of services).
KD 1	Inception Report	D + 15
KD 2	Quality Assurance Manual with requisite forms	D + 30
KD 3	Project Management Plan	D + 30
KD 4	Supervision Manual	D + 30
KD 5	Monthly Progress Reports (physical & financial)	Monthly by 21 st of following month
KD 6	Completion report	Within 90 days of issue of Taking Over Certificate of each Bridge.

8.0 Staffing by Consultant for the consultancy services.

8.1 PMC shall appoint an overall Chief Resident Engineer, who shall prepare method statement, monitor the progress of the contract, supervise the works, attend important activities during construction, scrutinize the contractor's proposals during the progress of work and make necessary recommendations to DFCC. He shall keep a continuous record of the work and make necessary recommendations to accelerate the progress of work where required. He shall monitor Environmental, Safety and Health aspects. The Chief Resident Engineer shall be assisted by Resident Engineers and Quality Assurance Expert and Environmental Expert (part time).

PMC shall provide adequate number of qualified and experienced supervision personnel under Resident engineers. If it is felt during the course of execution of work that the deployment is inadequate or the supervisors are not competent enough, the consultants shall increase the number or change the personnel with suitable replacements, with the approval of client. Replacement in any case will require client's approval.

The PMC shall Scrutinize, certify and approve invoices, bills and other documents submitted by the contractor for releasing advance/running/final payments by DFCC. The quantum of work carried out would be measured and certified as per the method statement to be finalized in consultation with DFCC and got approved by DFCC. However, test checks on Contractor's IPCs as per para 3.8.3 above shall be mandatory.

8.2 PMC's team is required to have key personnel:

- i. Project Management / Coordination – Chief Resident Engineer (Full time)
- ii. Resident Engineers (Bridge – Civil Works) (3 Nos Full time)
- iii. Quality Assurance Expert – (Full time)
- iv. Techno legal Expert (Contract Administration) (Full time)

The bidder is required to provide CV for the abovementioned key personnel for evaluation as per PARA 18.3.1 of ITB included in **Section 1** of this document.

8.3 The minimum qualification for the key staff will be as given below:

S. N.	Expert	Age limit	Suggested Numbers	Qualifications		Experience	
				Minimum	Desirable	Minimum	Desirable
1.	Team Leader/ Chief Resident Engineer	Not more than 65 years	1	Bachelor of Engineering in Civil Engineering	Master of Engineering	20 years of experience in the project management. He should have independently managed at least one Highway/Railway infrastructure project involving construction of major/important bridges/flyovers comprising PSC superstructure and pile/well foundations successfully.	Experience in use of Project Management Software such as Primavera, MS Project, etc.
2.	Resident Engineers (Bridge – Civil Works)	Not more than 62 years	3	Bachelor of Engineering (Civil Engg)	Master of Engineering	15 years of experience in construction planning and supervision. He should have done construction planning and supervision of at least one Highway/Railway infrastructure project involving construction of major/important bridges/flyovers	Experience in use of Project Management Software such as Primavera, MS Project, etc.

						comprising PSC superstructure and pile/well foundations successfully.	
3.	Quality Assurance Expert	Not more than 62 years	1	Bachelor of Engineering (Civil Engg)	Master of Engineering	Minimum 15 years of experience in construction supervision of civil engineering works. He should have worked as Quality Assurance Engineer of at least one Highway/Railway infrastructure project involving construction of major/important bridges/flyovers comprising PSC superstructure and pile/well foundations.	He should have experience of setting up Quality Assurance System of at least one Highway/ Railway infrastructure project involving construction of major/important bridges/flyovers comprising PSC superstructure and pile/well foundations.
4.	Techno Legal/ Contract Administration Expert.	Not more than 65 years	1	Bachelor of Engineering (Civil Engg)	Batchelor of Law	Minimum 10 years experience in Contract Administration on major Highway/Railway Infrastructure Project.	Two years' experience in Arbitration matters
5.	Environmental Engineering/ Environmental Impact Analysis expert. (Part Time)	Not more than 60 years	1 (Part time)	Master of Science (Environmental Engg.)	Master of Engineering (Environmental Engg.)	Minimum 10 years experience in Environmental Impact Analysis and monitoring on major Highway/Railway Infrastructure Project.	Out of ten years experience, at least two years should be on a Government project.
6.	Supervisors (Civil Works)	Not more than 50 years	8	Diploma in Civil Engineering	Batchelor of Engineering (Civil)	8 years experience in construction supervision for Diploma in Civil Engg. or minimum 4 years experience for Batchelor of Engineering (Civil) on bridge works involving PSC superstructure and pile/well foundations.	12 years experience in construction supervision for Diploma in Civil Engg. or minimum 6 years experience for Batchelor of Engineering (Civil) on bridge works involving PSC superstructure and pile/well foundations.

7.	Technical assistants	Not more than 50 years	3	Diploma in Civil Engineering	Batchelor of Engineering (Civil)	8 years experience (or 6 years in case of BE (Civil)) in construction supervision of civil works/ material testing/quantity surveying.	12 years experience (or 8 years in case of BE (Civil)) in construction supervision of civil works/ material testing/quantity surveying.
----	----------------------	------------------------	---	------------------------------	----------------------------------	--	---

Note – All the details given in the table including the details related to Minimum and desirable Qualification and experience shall be given in the CVs of the personnel. While evaluating the Technical Proposal, 80% marks shall be given for fulfilling Minimum Qualification and Experience requirements and 100% for fulfilling both minimum and desirable Qualifications and experience.

8.4 Consultants while submitting the proposals must indicate the duration of personnel proposed to be deployed (by name and designation for sr. no. 1 to 4 and by designation for sr. no. 5 to 7 in the Table under para 8.3 above) in consonance with staffing schedule which shall form a part of Technical Proposal. Before deployment of staff under sr. no. 5 to 7 PMC will submit their CV to DFCC and will obtain its approval.

8.5 **Administrative staff:** The Consultant shall estimate and provide for administrative staff viz. Typist, Stenographer, Record Keeper, Clerks etc. in their proposal, in addition to staff mentioned above. Before deployment of such staff, PMC will submit their CVs to DFCC and will obtain its approval.

8.5 Depending on the pace of the progress of the project, DFCC may require PMC to adjust and regulate the deployment of their personnel.

9 Reporting System of the Progress of Project

9.1 Inception Report

An inception report (5 copies) in English shall be submitted by PMC to the DFCC within 15 days of the commencement of the assignment, presenting an initial technical appreciation of the services requirement and identifying both the overall work plan and analytical steps to complete the work.

9.2 Monthly Progress Report

A Monthly Progress Report (5 copies) in English shall be submitted by PMC to the DFCC. This report shall be submitted by the 5th day of each calendar month and shall account for all work physically performed upto the end of the previous month. It shall be submitted in the format approved by the DFCC.

9.3 Daily Progress Report

During project execution phase, a daily progress report will be submitted by PMC to DFCC in the format approved by DFCC.

9.4 Completion Report

Completion Reports (5 copies) in English inclusive of all data and drawings (including reproducible) pertaining to the execution of the contracts shall be submitted at the completion of each bridge and at the conclusion of the whole contracts.

9.5 Executive Summary Report

Executive Summary Report in English covering in a refined form the main summary of the material contained in the Completion Reports shall be submitted on completion of the contract. For individual bridges it shall be in five copies and for the whole contract it shall be in ten copies.

9.6 All reports shall be submitted in hard and soft copies.

10. Services and facilities to be created by the Consultant for delivery of Services.

PMC shall create following minimum facilities at their cost for the successful delivery of services:

- (i) Establish office (including a Conference Room to accommodate 10 persons) of the Chief Resident Engineer at Surat with requisite infrastructure in terms of furniture, equipment, communication, software and office support staff.
- (ii) Establish three offices of Resident Engineers at suitable locations along the length of the Project (preferably at locations where the Contractor establishes his offices) with requisite infrastructure in terms of furniture, equipment, communication, software and office support staff.
- (iii) Requisite number of vehicles (four wheelers and two wheelers) to facilitate mobility of supervision team with drivers of four wheelers available for at least 18 hrs each day.
- (iv) Residential accommodation to supervision team in the vicinity of their respective jurisdictions. Chief Resident Engineer shall be provided with a residential accommodation at Surat and he shall be stationed at Surat.
- (v) Mobile telephones to each member of the Supervision team.

11. Services and facilities to be provided by the contractor to the Consultant for delivery of services.

Contractor shall provide following facilities to the supervision team:

- (i) Assistance in terms of helpers and surveyors including necessary equipment for taking/checking measurements of the Works.
- (ii) Ensure access to all parts of Works and also manufacturing facilities for components/materials including making traveling arrangements and accommodation for visit to manufacturing facilities outside the Project length.
- (iii) One office room duly equipped with desktop computer, furniture, drinking water supply, toilet at each of their important site offices.

12. Services and facilities to be provided by DFCC.

DFCC shall issue Authority letters/ID Cards in favour of members of the PMC's supervision team for unhindered access to the Railway premises in connection with the Project Works.

Section – 6

Formats for Qualification Information and Technical Proposal

Annexure 6.1

Qualification Information Transmittal Form

(To be given on the official Letter Head of the Company submitting the proposal)

To:

**Group General Manager Engineering- I)
Dedicated Freight Corridor Corporation of India Limited)
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001**

Subject: Project Management Consultancy for Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .

I / We _____(Consultancy / Consultancy company (ies))
herewith enclose Qualification Information for selection of my / our company /
organization as Project Management Consultants for above mentioned consultancy
services.

Yours faithfully,

Signature

Full Name

Designation:

Address:

(Authorized Representative)

Annexure 6.2

Technical Proposal Transmittal Form

(To be given on the official Letter Head of the Company submitting the proposal)

To:

**Group General Manager Engineering- I)
Dedicated Freight Corridor Corporation of India Limited)
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001**

**Subject: Project Management Consultancy for Design and Construction of
Important & Major Bridges (54 nos.) of Western Freight Corridor
between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch
section in the states of Maharashtra and Gujarat, India .**

I / We _____(Consultancy / Consultancy company (ies))
herewith enclose Technical Information for selection of my / our company / organization
as Project Management Consultants for above mentioned consultancy services.

Yours faithfully,

Signature

Full Name

Designation:

Address:

(Authorized Representative)

Annexure 6.3

Qualification Information

(The information to be filled in by the Single Bidder or Lead Member in the following pages will be used for the purpose of pre qualification as provided for in Para 7 of Invitation for Bids (ITB) and Para 8 of the Instructions to Bidders (ITB). This information shall be filled up for all the JV partners collectively (as well for each partner individually). This Information will not be incorporated in the Contract. *In case of an existing JV as bidder, the bidder may submit the above information for the JV*)

Annexure 6.3-1

Declaration Format (para 8 of ITB and Clause 5.2 of GCC)

In my/our individual capacity or JV I/we are not associated/ shall not associate with providing any services to the contractors appointed/ who will be bidding for executing the Works which form a part of the Works Contract under this project. No member on the Board of Directors of my/our company/ies are on the Board of Directors of the contractors appointed/ who will be bidding for executing the Works which form a part of the Works Contracts under this project. In my/our individual capacity or JV I/we are not associated/ shall not associate with the contractors appointed in terms of provisions of Clause 5.2 of the General Conditions of Contract

(Signature of Authorised Representative)

(to be signed by individual bidder or each member of JV)

Annexure 6.3-2

Background Information of the Company (Para 8 and Para 13.1.2(a) of ITB)

(This shall also include the following)

Constitution or legal status of Bidder

[Attach Copy]

Place of registration: _____

Principal Place of Business: _____

Power of attorney of signatory of Bid

[Attach]

(to be provided by individual bidder or each member of JV. This information will be scrutinized with reference to both Eligibility Criteria and Technical Proposal evaluation)

Annexure 6.3-3

Contractual payments received on Consultancy Services pertaining to Design, Proof Checking, Project Management Consultancy and Independent Engineers on Infrastructure projects **comprising Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works)** executed in the last three years in Rs. Lacs[@] (para 8 (i)(a) of ITB)

2005-2006 _____
2006-2007 _____
2007-2008 _____

([@] Work wise list is expected. Also attach certificates of Chartered Accountant)

Annexure 6.3-4

Balance Sheets and Profit and Loss account (duly certified by Chartered Accountant) and Auditor's Report for the last three years viz. 2005-06, 2006-07, 2007-08. (para 8(i)(b) of ITB) – List them below and attach copies.

Annexure 6.3-5

(A) Project Management Consultancy on Infrastructure Projects comprising construction of Highways, Expressways, Tunnels, Dam projects, Airports, Sea ports or Railways (new lines, doublings, Gauge Conversion and Bridge works) for Govt. Departments/PSUs/Public Limited Companies, completed as an individual firm (in the same name) or JV (in the same name and configuration) over the last three years and upto application submission date. (Para 8(ii) ITB)

Project Name @	Name of the Employer*	Description of Work	Contract No.	Value of Contract (Rs. Lacs)	Date of issue of Work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed

(B) Project Management Consultancy on Infrastructure Projects comprising construction of Bridges/Flyovers for Govt. Departments/PSUs/Public Limited Companies, completed as an individual firm (in the same name) or JV (in the same name and configuration) over the last three years and upto application submission date. (Para 8(ii) ITB)

Project Name @	Name of the Employer*	Description of Work	Contract No.	Value of Contract (Rs. Lacs)	Date of issue of Work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed

(C) Detailed Design Consultancy for Bridges/Flyovers comprising Prestressed Concrete Superstructure for Govt. Departments/PSUs/Public Limited Companies, completed as an individual firm (in the same name) or JV (in the same name and configuration) over the last three years and upto application submission date. (Para 8(ii) ITB)

Project Name @	Name of the Employer*	Description of Work	Contract No.	Value of Contract (Rs. Lacs)	Date of issue of Work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed

* Attach Certificate(s) from the Engineer(s)- in-charge

@ Bidders may include substantially completed works (progress > 80 %) in these Tables

Annexure 6.3-6

Name, address, e-mail and telephone, telex and fax numbers of the Bankers who may provide references if contacted by the DFCC.

Annexure 6.3-7

Additional requirements

Bidders should provide any additional information required to fulfill the requirement of Eligibility Criteria given in Instructions to Bidders (ITB), if applicable.

NOTE: The information listed in Annexure 6.3.-1.to 6.3-7 shall be provided for the each member of the joint venture and in addition wherever considered necessary combined for all the members of JV.

Annexure 6.4

Technical Proposal

Following Information is required with reference to Para 13.1.2 and Para 18.3.1 of ITB and will be evaluated for assigning points during the evaluation of the Technical Proposal.

Annexure 6.4-1

DETAILS OF PARTICIPATION IN THE JOINT VENTURE

(para 11.6 of Instructions to Bidders)

PARTICIPATION DETAILS	FIRM 'A' (Lead Partner)	FIRM 'B'
Financial		
Name of the Banker(s)		
Planning		
Key Personnel		
Execution of work (Give details on contribution of each)		

Annexure 6.4-2

Past Experience of the Company (Ref to para 13.1.2 (b) of ITB)
(to be provided by individual bidder or each member of JV)

Details of past Consultancy assignments of a nature similar* to this consultancy assignment for Government Departments/PSUs, Public Limited Companies completed by the Bidders in the Last Three Years (Completed after 01.04.2005) which best illustrate qualifications (Sheets to be placed in descending order of value of services)

The information shall be provided in the format below for each reference assignment for which Bidder, either individually or as a JV, was legally contracted (to be provided for individual bidder or each member of JV)

Assignment :		Country :	
Location within Country:		Field of Professional Services Provided by the firm:	
Name of client:		No. of staff	
Address:		No. of Staff Months	
Start Date (Month/Year)		Completion Date: (Month / Year)	Cost of Project- (to be given both in local currency and in Indian Rs.)
Approx. Value of Services: (to be given both in local currency and in Indian Rs.)	In case of JV, % share in JV -	In case of JV, share in value of services- (to be given both in local currency and in Indian Rs.)	
Computer Software used or developed (18.3.1 (i) c) of ITB)-			
Name of Associated Firm (s) if any		No. of Months of Professional Staff provided by Associated Firm (s):	
Name of Senior Staff (Project Director/ coordinator, Team Leader) involved and functions performed.			
Narrative Description of Project:			
Description of Actual Services Provided by your Staff:			

*** Definition of past work of a nature similar to this consultancy assignment:**

Following consultancy work will be considered as work of nature similar to this consultancy assignment.

- a) PMC of Bridges
- b) PMC of Flyovers
- c) PMC of Highways
- d) PMC of Railways
- e) Detailed design of bridges with PSC superstructure and deep foundations including PMC service

Annexure 6.4-3

List of Works Under Execution

(Refer to Para 13.1.2 (d) of ITB)

(to be submitted by Individual bidder/Lead Member and all the Constituent Members of the JV)

S. No.	Name of Work	Client Name / Address	Date of Award of Contract	Anticipated Date of completion of Work	Brief Description / Scope of Work	Estimated value of Work Completed on 31.07.2008	Percentage Share if executing as JV

Annexure 6.4-4

BIDDER's NAME

Lead Member

Members of the Group

UNDERSTANDING OF TOR (Refer to Para 18.3.1(ii) (a) of ITB)

Annexure 6.4-5

BIDDER's NAME

Lead Member

Members of the Group

**APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE
ASSIGNMENT** (Refer to Para 18.3.1(ii) (b) of ITB)

Annexure 6.4-6

COMMENTS / SUGGESTIONS OF BIDDER

A. On the Terms of Reference

B. On the Data, services and facilities to be provided by DFCC.

Annexure 6.4-7

FORMAT OF CURRICULUM VITATE (CV) FOR PROPOSED KEY PROFESSIONAL STAFF.

(Refer to Para 18.3.1 (iii) of ITB)

Proposed Position:

Name of Company:

Name of staff:

Qualification

Profession:

Date of birth

Years with Firm:

Nationality:

Membership of Professional Institutions / Bodies:

Key qualifications:

(Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignment and give dates and locations (Use up to half page)

Education:

Summarize college / University and other specialized education of staff member, giving names of schools, dates attended and degree obtained.

Employment Record:

(Starting with present position, list of reverse order, every employment held. List all positions held by staff member since graduation, giving dates, names of employing organization, title of positions held and location of assignments. For experience in last ten year, also give type of activities performed and client reference where appropriate.)

Details of Consultancy Services provided by the expert in past should be given.

In case of Chief Resident Engineer, details of project managed as Team Leader/ Dy. Team Leader shall be given.

Language

(Indicate proficiency in speaking, reading and writing of each language by “excellent”, “good”, “fair”, or poor.

Certification

I, the undersigned, certify that to the best of my knowledge, and belief, this, bio-data correctly described myself, my qualifications and my experience.

Signature of staff member

Date: Day / Month/ Year.

Each CV must be signed by the staff member and date of signature shall be put.

Annexure 6.4-8

WORK PROGRAMME AND TIME SCHEUDLE FOR PROFESIONAL PERSONNAL (Refer to Para 18.3.1(ii)(c) of ITB)

(All personnel listed under Para 8.3 of the Terms of Reference- Bidder may vary the numbers)

Sr. No.	Name	Position	Activities	Months (in the form of bar chart) <i>(for the entire period of Consultancy Services – 12 columns are for illustration)</i>												Deployment in Man - months		
				1	2	3	4	5	6	7	8	9	10	11	12	At Project Site/Office	Home Office	Elsewhere
1.																		
2.																		
3.																		
4.																		
5.																		

Annexure 6.4-9

COMPOSITION OF THE TEAM PERSONNEL AND THE TASK WHICH WOULD BE ASSIGNED TO EACH TEAM MEMBER.

1. Senior Technical / Managerial Staff (*sr. no. 1 to 6 of Table under para 8.3 of TOR-need to be named*)

S.No.	Name	Position	Task Assignment
1.			
2.			
3.			
4.			
5.			
6.			

2. Technical Support Staff (*sr. no. 7 to 9 of Table under para 8.3 of TOR – need not be named at biding stage.*)

S.No.	Name	Position	Task Assignment
1.			
2.			
3.			
4.			

WORK PLAN / TIME SCHEUDE

(Refer to Para 18.3.1(ii)(c) of ITB)

(1st, 2nd, etc. are months from the date of assignment)

SN	Item of Activities	MONTH WISE PROGRAMME (IN FORM OF BAR CHART)- (to cover entire period of services)											
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
1.													
2.													
3.													
4.													

Annexure 6.5

(For the Bidders submitting proposal as a Group)

Principles for Preparing Memorandum of Understanding among constituent members of Group (JV)

The Principles based on which the Memorandum of Understanding (MoU) shall be executed between / among the Members, are stated below:

- The MoU should clearly specify the roles and responsibilities of each of the Members. It is expected that the individual members have role definitions not conflicting with that of the other members of the JV. The technical responsibility should be assigned to only one of the Members.
- The MoU should clearly designate one of the Members as the Lead Member.
- The Lead Member shall be primarily responsible for the execution of Assignment on behalf of the JV
- The MoU should clearly state that all JV members have joint and several liability towards the obligations related to this engagement.
- The Lead Member should be authorized to perform all tasks including, but not limited to providing information, responding to enquiries, entering into contractual commitments on behalf of the Members, etc in respect of the Assignment.
- The MoU should be duly signed by each of the Members.
- The MoU should be executed on an appropriate stamp paper.
- The MoU should be specific to the Assignment.

READ AND ACCEPTED

(To be signed by the authorized signatory)

Name:

Designation:

(Please note: all JV members and Lead Member need to sign this MOU)

Section – 7

Formats for Financial Proposal

Preamble

This section comprises of Annexures 7.1 to 7.5.

Annexure 7.1 is the Transmittal Form and Annexure 7.2 is Financial Offer. The payment to the Consultant shall be regulated based on actual deployment of Professional Personnel on the assignment applying the all inclusive rates accepted by DFCC based on the offer at Annexure 7.2.

Annexures 7.3 to 7.5 are to contain supporting details for the Offer submitted by the bidder at Annexure 7.2. These details essentially pertain to break up of the Offer of the bidder bringing out as to how it has been arrived at. The information submitted therein will form the basis for any deductions which may have to be effected from the Consultant's IPC and Final Bill during the currency of Contract, in case DFCC notices any deficiency in deployment in terms of various components such as Vehicles, office space and facilities etc. This information will also be utilized during negotiations with the preferred bidder. Each of these Annexures is to be signed by the person authorized to sign the Financial Offer.

Annexure 7.1

Financial Proposal Transmittal Form

(To be submitted on official letter head of the Consulting Company submitting the proposal)

To:

**Group General Manager (Engineering – 1)
Dedicated Freight Corridor Corporation of India Limited
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001**

Sub: Project Management Consultancy for Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .

I/We _____ (Consultant / Consultancy firm) herewith enclose Financial Proposal for selection of my / our/ organization as Project Management Consultants for abovementioned consultancy services for the work of Design and Construction of Important & Major Bridges (54 nos.) of Western Freight Corridor between Vaitarna and Utran (Approx. 200 KMs) on Vasai-Bharuch section in the states of Maharashtra and Gujarat, India .

Yours faithfully,

Signature _____

Full Name _____

Designation _____

Address _____

(Authorized Representative)

Annexure – 7.2

Financial Offer

(To be considered for release and regulation of ALL INCLUSIVE payment of Consultancy charges, which shall include all the charges as reflected in Annexure 7.4 and Annexure 7.5. The release of payment shall be related only to deployment of Professional and Office Support Staff during the delivery of services)

Sr. No.	Name/Position*	Billable Monthly Rate In Rs.	Deployment in M/Months	Total in Rs.	
				In Figures	In Words
1	2	3	4	5	6
		Grand Total in Rs.			

- Notes:**
- * Include all staff (wherever required by name and elsewhere by position) appearing in Tables under **Annexure 7.5 I & II**
 - Service Tax (if due for payment legally) shall be reimbursed by DFCC at the applicable rates**

Yours faithfully,

Signature _____

Name _____

Designation _____

(Authorized Representative)

Annexure –7.3

Expenditure Schedule

(for reflecting annual cash flow requirements for DFCC)

No.	Item	Year 1	Year 2	Year 3	Year 4	Year 5 (6 months)
I.	Remuneration for Professional Personnel *					
II.	Remuneration for Supporting Staff *					
III.	Travel Costs*					
IV.	Rent for Office accommodation*					
V.	Office supplies, Utilities and Communication*					
VI.	Office furniture and equipment*					
VII.	Reports and * Documents Printing					
VIII	Overheads					
IX.	Taxes & Duties[@]					
X	Profit					
	Total Payment					
	Progressive Total					

- Notes-**
1. *The amounts entered in Annexure 7.4 to be divided under the periods indicated.
 2. @Excluding Service Tax which will be reimbursed by DFCC (if due for payment legally)

Annexure 7.4

Summary of Cost

No.	Description	Amount (Indian Rupee)
	Personnel	
I	Remuneration for Professional Personnel	
II	Remuneration of Supporting Staff	
III	Travel Costs	
IV	Rent for Office accommodation	
V	Office Supplies, Utilities & Communication	
VI	Office Furniture and Equipment	
VII	Reports and Document Printing	
	Subtotal Personnel	
	Overheads	
	Taxes & duties (excluding Service Tax)	
	Profit	
	Total Fees (Including all taxes, duties, levies but excluding Service Tax).	

Annexure 7.5

Estimates of Costs

I. Remuneration for Professional Personnel.

(Include CTC of Staff)

No.	Position	Name	Year 1*			Year 1			Year 2		
			First six month period			Second 6 month period			First 6 month period		
			Rate	Staff Months (SM)	Amount	Rate	SM	Amount	Rate	SM	Amount
	Professional Staff										
	Sub – Total										
	Supporting Professional Staff										
	Sub- Total										
	Total										

* Extend Table to cover the entire period of Consultancy Services including Defect Liability Period.

II. Remuneration for Support Staff (office staff other than Technical Staff and excluding office peons, helpers etc.)

(Include CTC of staff)

No.	Position	Name	Year 1*			Year 1			Year 2		
			First six month period			Second 6 month period			First 6 month period		
			Rate	Staff Months (SM)	Amount	Rate	SM	Amount	Rate	SM	Amount
	Support Staff - Non Technical										
	Total										

* Extend Table to cover the entire period of Consultancy Services including Defect Liability Period.

III Travel Costs (Project site and outside)

(A) Project Site

Sr. No.	Vehicle Type ^{\$}	Year 1*			Year 1			Year 2		
		First six month period			Second 6 month period			First 6 month period		
		Rate [@]	Months (M)	Amount	Rate [@]	M	Amount	Rate [@]	M	Amount
	Total									

* Extend Table to cover the entire period of Consultancy Services including Defect Liability Period.

\$ Include 4 wheelers as well as two wheelers

@ All inclusive rate of vehicle including driver for 4 wheelers, fuel, maintenance & upkeep, etc.

(B) Outside Project Site (e.g. travel to Home Office of Consultants, HQ/Regional offices of DFCC, including outstation boarding and lodging expenses etc.)

	Amount in Rs. Per Month							
	Year 1		Year 1		Year 2		Year 2	
	First six months	Second six months	First six months	Second six months	First six months	Second six months	First six months	Second six months
Amount per Month								
Sub Total								
Total								

Extend Table to cover the entire period of Consultancy Services including Defect Liability Period.

IV. Rent for office accommodation (for all office accommodations- to be given separately for each accommodation specifying locations thereof)

The rent cost includes maintenance, cleaning, repairs, etc.

	Amount in Rs. Per Month							
	Year 1		Year 1		Year 2		Year 2	
	First months	six months	Second months	six months	First months	six months	Second months	six months
Sub Total								
Total								

V. Office Supplies, Utilities and Communication

No.	Item	Months	Monthly Rate	Amount
1				
2				
3				
4				
			Total	

VI. Office Furniture and Equipment

No.	Description	Unit	Quantity	Rate	Amount
	Office Furniture (Purchase)				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
	Office Equipment (Purchase)				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
				Total	

VII. Reports and Document Printing

No.	Description	No. of Volumes	No. of copies per Volume	Rate per Copy	Amount
1.	Inception Report				
2.	Monthly Reports				
3.	Quarterly Reports				
4.	Annual Reports				
5.	Supervision Reports				
6.	Engineering Reports				
7.	Draft Completion Report				
8.	Final Report				
				Total	

Section 8

Form of Contract Agreement & General Conditions of Contract for Consultancy Contract

Section 8

Form of contract & General Conditions of Contract for Consultancy Contract

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Form of Contract Agreement

(To be executed on stamp paper of value as per Stamp Act)

This CONTRACT (hereinafter called the "Contract") is made ----- day of he -----
-----month of ----- year, between
Dedicated Freight Corporation of India Limited, (hereinafter called the "Client" which
expression shall include their respective successors and permitted assigns, unless the
context otherwise requires) on the one part and
_____ [Name of the Consultant] (hereinafter called
the "consultant" which expressions shall include their respective successors and
permitted assigns unless the context required otherwise) on the other part. The
addresses of each of the Parties are included in the Special Conditions of Contract of
this Contract.

WHEREAS

- (A) The Client vide their letter of Invitation invited proposals for Technical and
Financial offers to undertake the work of Consultancy Services for the {-----
- name of work -----} : the Consultants submitted their proposal for
aforesaid work, whereby the Consultants represented to the Client that they had
the required professional skills and professional, technical and financial
resources and in the said proposals the Consultant also have agreed to provide
the Services to the Client on the terms and conditions set forth in this Contract;
and
- (B) The Client in acceptance of aforesaid proposals of Consultants awarded the work
of the Consultancy Services to the Consultant.

NOW THEREFORE, the parties hereto hereby agree as follows:

1. The Following documents attached hereto shall form an integral part of this
Contract:
 - (a) General Conditions of Contract (hereinafter called "GCC"),
 - (b) Special Conditions of Contract (Hereinafter called "SCC"),

- (c) Notice Inviting Tender
- (d) Instructions to the Bidders (ITB)
- (e) Terms of Reference
- (f) Institutional Arrangements
- (g) Project Information
- (h) The following Appendices
{list of appendices for technical and financial proposals and forms of Bank Guarantees}
- (h) Letter of Award for Consultancy Work and other Correspondence mentioned therein.

In the event of inconsistency in provisions of various documents, the order of precedence as per Contract Conditions shall prevail.

- 2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in Contract, in particular:
 - (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) The Client shall make payments to the Consultant in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

FOR AND ON BEHALF OF
BEHALF OF
DEDICATED FEIGHT CORPORAITON
OF INDIA LIMITED

(by authorized representative)

Witness

1.-----
2.-----

FOR AND ON
BEHALF OF
CONSULTANTS

(by authorized representative)

Witness

1.-----
2.-----

**GENERAL CONDITIONS OF CONTRACT
FOR
CONSULTANCY CONTRACTS**

1. GENERAL PROVISIONS:

1.1 Definitions

In the contract (term defined as hereunder), the following words and expressions shall have the meanings assigned to them, unless the context requires otherwise. Words indicating persons or parties include corporations and other legal entities except where context requires otherwise.

- a. **“Applicable Law”** means all laws in force and effects as of the date hereof and which may be promulgated or brought into force and effect thereafter in India, including rules and regulations made therein, as may be in force and effect during subsistence of this agreement.
- b. **“Contract”** means the Contract Agreement, the Letter of Acceptance, the Notice Inviting Tender, these Conditions, the schedules and further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.
- c. Deleted
- d. **“Client/Employer”** means the Dedicated Freight Corporation of India Limited (DFCC) which expression shall also include its legal successors and permitted assigns. The phrase “Client” or “Employer” wherever used is synonymous and interchangeable.
- e. **“Effective Date”** means the date on which this Contract comes into force and effect pursuant to clause GCC 2.1.
- f. **“Employer’s Representative (or Engineer in Charge)”** in the Design and Build contracts for the supervision of which this consultancy contract is being entered into means Consultant.
- g. **“Consultant”** means the person or group named in the Contract who has to perform the Services and which expression shall include his/ their legal successors and permitted assigns.
- h. **“Contractor”** means the person/Company/Party who is executing the project for DFCC and the legal successors in title to such person.
- i. **Deleted**

- J. “**GCC**” mean the General Conditions of Contract.
- K. “**Government**” means the Government of India.
- I. “**Letter of Acceptance**” means the formal acceptance letter from the Employer.
- m. “**Local Currency**” means the currency of Government of India.
- n. “**Member**”, in case the Consultant consists of Joint Venture / Consortium of more than one entity, means any of these entities, and “**Members**” means all of these entities. “**Member in charge**” or “**Lead Member**” means the entity specified in Special Conditions of Contract (**SCC**) to act on their behalf in exercising all the Consultant’s rights and obligations towards the DFCC under this Contact.
- o. “**Party**” means Employer or the Consultant as the case may be and “**Parties**” means all these entitles.
- p. “**Period of Consultancy Services**” shall mean the time between Date of Commencement and end of Period of Completion as given in SCC.
- q. “**Personnel**” means the persons hired by the Consultants as employees and assigned to the performance of the Services or any part thereof.
- r. The words “**Project**” and “**Work**” have been used interchanging and have meaning as defined in Section 4 B.
- s. “**SCC**” means the Special Conditions of Contract by which these General Conditions of Contract (GCC) may be amended or supplemented.
- t. “**Services**” means the work to be performed by the Consultants pursuant to this Contract as listed and described in Appendix A hereto.
- u. “**Sub-Consultants**” means any entity to which the Consultant subcontracts any part of the Services in accordance with the provisions of Clause GCC 5.9.
- v.
 - i. “**Day**” means a calendar day.
 - ii. “**Month**” means a calendar month
 - iii. “**Year**” means 365 days
- w. “**Terms and expression not herein defined**” shall have the meanings assigned to them in the “Indian General Clauses Act, 1897, or the “Indian Contract Act” or the Indian Sale of Goods Act or any other applicable Indian Law, as the case may be
- x. “**Third Party**” means any person or entity other than the Government, the Client and the Consultant.

1.2 Interpretation

In the Contract except where the context requires otherwise:

- a. words indicating one gender include all genders,
- b. words indicating the singular also include the plural and words indicating the plural also include the singular, and
- c. “written” or “in writing” means hand-written, type written, printed or electronically made and resulting in a permanent record.

The marginal words and other headings shall not be taken into consideration in interpretation of these conditions.

1.3 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of principal and agent as between the Client and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel if any, performing the Services and shall be fully responsible for the services performed by them or on their behalf hereunder.

1.4 Governing Law and Priority of Documents

1.4.1 Law Governing Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.4.2 Jurisdiction of Courts

This is a condition of contract that the courts at Delhi / New Delhi shall have exclusive jurisdiction to try all disputes between the parties arising out of this Contract.

1.4.3 Priorities of documents

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

- a) The Contract agreement (if completed)
- b) The Letter of Award
- c) Notice Inviting Tender
- d) Instructions to Bidders (ITB)
- e) Terms of Reference (TOR)
- f) Special Conditions of Contract (SCC)
- g) General Conditions of Contract (GCC)
- h) The Schedules and any other document forming part of Contract.

1.4.4. Joint and Several Liabilities

If the Consultant is (Under Applicable Law) a Joint Venture, Consortium or other Incorporated Group of two or more Members:

- a) These Members shall be deemed to be jointly and severally liable to the Client for the performance of the Contract.
- b) These Members shall notify the Client of their Lead Member who shall have authority to bind the Consultant and each of these persons; and
- c) The Consultant shall not alter its composition or legal status without the prior written consent of Client.

1.5 Communication and Language of Contract

1.5.1 Communication to be in writing.

Communications between Parties will be effective only when in writing. Verbal communication, if any, must be confirmed in writing later on. Any notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram or facsimile to such party at the address specified in SCC. Notices shall be deemed to be effective as follows.

- a. In case of personal delivery or registered mail, on delivery
- b. In case of telexes, e-mails 24 hours following confirmed transmission
- c. In case of telegrams, 24 hours following confirmed transmission, and
- d. In case of facsimiles, 24 hours following confirmed transmission.

1.5.2 Language of Contract

The Contract shall be executed in English which shall be the controlling language for all matters relating to meaning or interpretation of this Contract.

1.6 Location

The services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, as the Employer may approve.

1.7 Authority of Member in Charge (Lead Member)

In case Consultant consist of a Joint Venture of more than one entity, the Members hereby authorize the entity specified in SCC to act on their behalf in exercising all the Consultants rights and obligations towards the Client under this Contract, including without limitation receiving of instructions and payments from the Employer.

1.8 Authorized Representatives.

Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by Employer or the Consultants may be taken or executed by the official specified in the SCC.

1.9 Taxes and Duties

Unless otherwise specified in SCC, the Consultants, Members and Personnel shall pay such taxes and duties, fees and other impositions as may be levied under the Applicable Law. All payments will be subject to deduction of tax at source in accordance with the provisions of Indian Income Tax Act and any other Applicable Law.

2.0 Commencement, Completion and Modification of Contract

2.1 Effectiveness of Contract

The Contract shall come into force and effect on the date (the "Effective Date") of Employer's notice to the Consultants instructing the Consultants to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SCC have been met.

2.2 Termination of Contract for Failure to become Effective

If this Contract has not become effective within such time period after the date of contract signed by the Parties as shall be specified in the SCC, either Party may, by not less than four (4) weeks written notice to the other Party, declare this Contract null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.

2.3 a. Commencement of Services

The Consultants shall begin carrying out the services at the end of such time period after Effective Date as shall be specified in SCC.

b. Completion of Services

The targeted date of completion and Period of Completion shall be as specified in SCC.

2.4 Expiration of Contract

Unless terminated earlier pursuant to clause GCC 4.0 hereof, this contract shall expire when services have been complete and all payment have been made at the end of such time period after Effective Date as shall be specified in the SCC.

2.5 Entire Agreement

This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or liable for, any statement, representation, promise or agreement not set forth herein.

2.6 Modifications

The terms and conditions of this Contract including the Scope of Services can be modified only by written agreement between the Parties.

2.7 Liquidated Damages / Penalties for Delays and Deficiencies of Service

Time is the essence of the Contract. It shall be the bounden duty of the Consultants to strictly adhere to time for performance of various services indicated in the Contract. Delays and deficiencies on part of Consultants shall attract penal provisions. In case of delays without valid reason, the Consultants shall be liable to **pay liquidated damages at one-half of one percent (0.5%) per week of the Contract price subject to a maximum of ten percent (10%) of Contract price. For deficiencies in Service a fines up to a total of five (10%) of Contract value** may be imposed. Besides the penalties, the Consultants may face termination of Contract and/or debarment for any future contracts.

2.8 Force Majeure

2.8.1 Definition

- a. For the purposes of this contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a party's performance of its obligations hereunder impossible or so impracticable as reasonably to be considered impossible in the circumstances and includes war, riots, civil disorder, earthquakes, fire, explosions, storm, floods, revolution, large scale epidemics, nuclear accidents, other catastrophic unforeseeable circumstances, strikes, lockouts (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), orders of requisitions issued by Government department (herein referred to as "event").
- b. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such party's agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of conclusion of this Contract and (B) avoid or overcome in carrying out its obligations hereunder.
- c. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.8.2 Non breach of Contract

Neither party shall by reason of such event be entitled to terminate the Contract or have claim for damages against the other in respect of such non-performance or delay in performance.

2.8.3 Measures to be taken

- a. A party affected by an event of Force Majeure shall notify the other party of such event as soon as possible and in no case later than **twenty one (21) days** of occurrence thereof.
- b. The obligations under the contract shall be resumed as soon as practicable after the event has come to an end or ceased to exist.
- c. If the performance in whole or part of any obligation under the contract is prevented or delayed by reason of the event beyond a period mutually agreed to if any **or Ninety (90) days** whichever is higher, either party may at its option terminate the Contract.
- d. In case of doubt or dispute whether a particular occurrence should be considered an “event” as defined under this clause, or for the duration of existence of the “event”, the decision of the Employer shall be final and binding.

2.8.4 Extension of time

Any period which a party shall, pursuant to this Contract, require to complete any action shall be extended for a period equal to the time during which such party was unable to perform such action as a result of Force Majeure.

2.8.5 Payments

The consultants shall not be entitled to any extra payments towards reimbursements for additional costs incurred by them during such period for purposes of the Services and in reactivating the Services after the end of such period of “event”.

3.0 Suspension

The Employer may, by written notice of suspension to the Consultants, suspend all or part of services and payment to Consultants hereunder if the Consultants fail to perform any of the obligations under the Contract, including carrying out of the Services, provided that such notice of suspension shall a) specify the nature of failure and b) request the consultants to remedy such failure within a period not exceeding **thirty (30) days**.

4.0 Termination

4.1 A. By the Client

The Employer may, by a written notice of termination not less than thirty (30) days to the Consultants after occurrence of any of the following events specified in paragraphs (a) through (g) of this clause GCC 4.1 (A), terminate the Contract.

- a) If the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in Clause GCC 3.0 hereinabove, within

thirty (30) days of receipt of such notice of suspension or within such further period as Client may have subsequently approved in writing.

- b) If the Consultants or any of their Members (if Consultants consist of more than one entity) becomes insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for benefit of debtors or go into liquidation or receivership whether compulsory or voluntary or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction or otherwise is guilty of breach of Agreement;
- c) If the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 10 of GCC.
- d) If the Consultants submit to the Employer a statement, which has a material effect on the rights, obligations or interests of the Employer and which Consultants know to be false;
- e) If as a result of force majeure, the Consultants are unable to perform a material portion of the Services for a **period of not less than ninety (90) days**; or
- f) If the Consultant, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- g) If the Employer in its sole discretion and for any reasons whatsoever decides to terminate the contract.

For the purpose of this clause:

1. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the process or in contract execution.
2. "Fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Employer, and includes collusive practice among consultants (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

B. By the Consultant

The Consultants may, by a not less than thirty (30) days' written notice to the Client, such notice to be given after the occurrence of any event specified in paragraphs (i) to (iv) of this GCC Clause 4.1(B) hereunder, terminate the contract.

- (i) if the Employer fails to pay any money due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause GCC 10

hereof within sixty (60) days after receiving written notice from Consultants that such a payment is overdue,

- (ii) if the Employer is in material breach of its obligations pursuant to this Contract and not subject to dispute pursuant to Clause GCC 10 hereof and has not remedied the same within sixty (60) days (or such longer period as the Consultants may have subsequently approved in writing) following the receipt by the Employer of the Consultants' notice specifying such breach,
- (iii) if as a result of Force Majeure, the Consultants are unable to perform a material portion of Services for a period not less than ninety (90) days; or
- (iv) if the Employer fails to comply with any final decision reached as a result of Arbitration pursuant to Clause GCC 10 hereof.

4.2 Cessation of Rights and obligations of the Parties

Upon termination of this contract pursuant to Clause GCC 4.0 hereof, or expiration of Contract pursuant to Clause GCC 2.4 hereof, all rights and obligations of the Parties hereunder shall cease except:

- a. Such rights and obligations as may have accrued on the date of termination or expiration;
- b. The obligation of confidentiality set forth herein under in clause GCC 5.3 hereof;
- c. The Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GGC 5.8 hereof; and
- d. Any right which a Party may have under the Applicable Law.

4.3 Cessation of Services

Upon termination of the Contract by the Employer pursuant to Clause GCC 4.0 hereof, the Consultants shall immediately on receipt of such notice take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultants and equipment and materials furnished by the Employer, the Consultants shall proceed as provided, respectively, by Clauses GCC 5.4 and GCC 5.11 hereof.

4.4 Payment upon Termination

Upon termination of this contract pursuant to Clause GCC 4.0 hereof, the Client shall make the following payments to the Consultants (after offsetting from these payments any amount that may be due from the Consultant to the Client);

- a. Remuneration pursuant to Clause GGC 8 hereof for Services satisfactorily performed prior to the effective date of termination;
- b. Reimbursable expenditures pursuant to Clause GCC 8 hereof for expenditures actually incurred prior to the effective date of termination; and
- c. Except in the case of termination pursuant to paragraphs (a) through (d) of Clause GCC 4.1(A) hereof, reimbursement of any reasonable cost incident to prompt and orderly termination of Contract.

5.0 Obligations of the Consultants

5.1 General

5.1.1 Scope of services

The Consultants shall perform the Services relating to Project. The Scope of the Services is stated in Appendix A.

5.1.2 Standards of Performance

The Consultants shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency, skill and economy, in accordance with generally accepted professional techniques and practices and shall observe sound management practices, and employ effective methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisors to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealing with Sub-Consultant and Third Parties.

5.1.3 Law Governing Services

The consultants shall perform the services in accordance with the Applicable Law and shall take all practicable steps to ensure that the personnel of the consultants comply with the Applicable Law and respect local customs.

5.1.4 Co-ordination

Where the Services include co-ordination between the Consultants and other Consultants and Contractors employed on the Project, the Consultants shall provide such Co-ordination and submit to the Employer for his information and approval all details, drawing, quantities, specification arising from such Co-ordination.

5.2 Conflict of Interests

5.2.1 Consultants not to benefit from commissions, discounts etc.

The remuneration of the consultant pursuant to clause GCC 8 here of shall constitute the consultant's sole remuneration in connection with this contract or the service and subject to clause GCC -5.2.2 hereof the consultant shall not

accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this contract or to the Services or in the discharge of their obligations hereunder, and the Consultant shall use their best effort to ensure that the Personal and agents of them shall not receive any such additional remuneration.

5.2.2 Consultants and Affiliates not to engage in certain Activities

The consultants agree that during the term of this contract & after its termination, the Consultants and any entity affiliated with the Consultant, as well as any sub-consultants & any entity affiliated with such sub-consultants, Shall be disqualified from providing goods, works or Services (other than the Services under this contract and any continuation there of) for any project resulting from or closely related to the Services under this contract.

5.2.3 Prohibition of Conflicting Activities

The consultant shall not engage and shall cause their personal as well as their sub consultant and their personnel not to engage, either directly or indirectly in any of the following activities.

- (a) During the terms of the contract, any business or professional activities which would conflict with the activities assigned to them under this contract and
- (b) after the termination of this Contract, such other activities as may be specified in the SCC.

The Consultants and their Personnel shall have no interest in nor receive remuneration in connection with the Project except as provided for in the Contract.

5.3 Confidentiality

The Consultants and their Personnel shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract or the Employer's business or operations without the prior written consent of the Employer.

5.4 Documents to be property of Client and Intellectual Property Rights

All plans, drawings, specifications, designs, reports, other documents and software prepared by the Consultants for the Employer for performance of the Services under this Contract shall become and remain the property of the Employer, the full copyright shall be vested in the Employer and the Consultants shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Employer, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software. Restrictions about the future use of these documents and software, if any, shall be specified in the SCC.

5.5 Liability of Consultants

Subject to additional provisions, if any, set forth in the SCC, the Consultants' liability under this Contract shall be as provided by the Applicable Law.

5.6 Publications

Any publication of material relating to Services (other than proprietary and confidential information as covered under Clause GCC 5.2.4 hereof) shall be subject to written approval of the Employer during the term of contract or within two (2) years of expiration or termination of this Contract.

5.7 Indemnity and Insurance

1. The Consultants (a) shall take out and maintain, at their own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as specified in the SCC, and (b) at the Employer's request, shall provide evidence to the Employer, showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 2.(a) The Consultant shall indemnify, protect and defend at Consultant's own expense the Employer, its agents and employees from and against any and all actions, claims, losses or damages arising out of Consultant's failure to exercise the skill and care required under Clause GCC 5.1.2 hereof, provided, however;
 - (b) In addition to any liability Consultant may have under the above Consultant shall, at its own cost and expense, upon request of the Employer, re-perform the services in the event of Consultant's failure to exercise the skill and care required under Clause GCC 5.1.2 hereof.

5.8 Accounting, Inspecting and Auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services, hereunder, in accordance with accepted accounting principals and in such form and detail as will clearly identify all relevant time charges and cost, and the bases thereof (including such bases as may be specifically referred to in the SCC); (ii) shall permit the Employer or its designated representative periodically, and up to two (2) years from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Employer; and (iii) shall permit the Employer to inspect the Consultant's accounts and records relating to the performance of the Consultant and to have them audited by auditors appointed by the Employer.

5.9 Consultant's Actions requiring Prior Approval of Client

The Consultants shall obtain the Employer's prior approval in writing before taking any of the following actions:

- (a) Appointing such members of the Personnel as are listed in Appendix C (“Consultants’ Personnel”)
- (b) Deleted
- (c) Taking any action under a Design and Build Contract (or any other contract for the construction of the Project) designating the Consultants as “Engineer” or “Employer’s Representative” for which action, pursuant to such Contract, the written approval of the Employer is required.

5.10 Reporting Obligations of Consultants

The Consultants shall submit to the Employer the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.

5.11 Client’s equipment and materials

DELETED

5.12 Performance Guarantee

- 5.12.1 The Performance Guarantee (Appendix F) shall be as specified in SCC.
- 5.12.2 The Employer reserves the right to forfeit the Performance Guarantee amount, in the event of termination of contract in accordance with Clauses GCC 4.1 A (a) to (d) and (f).
- 5.12.3 In the event of any defect coming to the notice of the Employer during the period from actual date of completion of Services and the period of validity of the Performance Guarantee as per this Contract, and in the eventuality of Consultants failing to rectify the same, the Employer will forfeit the amount of Performance Guarantee.

6.0 Consultant’s Personnel and Sub-Consultants

6.1 General

The Consultants shall employ and provide such qualified and experienced Personnel as the required to carry out the Services.

6.2 Description of Personnel

- (a) The titles, agreed job descriptions, minimum qualification and estimated periods of engagement in carrying out of the Services of each of the Consultants’ Personnel are described in Appendix C. If any of the Personnel has already been approved by the Employer, his/her name is listed as well.
- (b) If required to comply with the provisions of Clause GCC 5.1.2 hereof, adjustments with respect to the estimated periods “of engagement of

Personnel” set forth in Appendix C may be made by the Consultants by written notice to the Employer, provided (i) that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and (ii) that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause GCC 8.1 (b) of this Contract. Any other such adjustments shall only be made with the Client’s written approval.

- (c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Personnel set forth in Appendix C may be increased by agreement in writing between the Employer and the Consultants, provided that any such increase shall not, except as otherwise agreed, cause payments under this Contract to exceed the ceilings set forth in Clause GCC 8.1 (b) of this Contract.

6.3 Client’s Approval of Personnel

The Key Personnel listed by title as well as by name in Appendix C are hereby approved by the Employer. In respect of other Personnel which the Consultants propose to use in the carrying out of the Services, the Consultants shall submit to the Employer for review and approval a copy of their biographical data. If the Client does not object in writing (stating the reasons for the objection) within thirty (30) calendar days from the date of receipt of such biographical data and (if applicable) such certificate, such Key Personnel shall be deemed to have been approved by the Employer.

6.4 Working Hours, Overtime, Leave, etc.

- (a) Working hours and holidays for Key Personnel shall be such as to effectively supervise the project and shall be got approved from the Employer.
- (b) The Key Personnel and other staff shall not be entitled to be paid for overtime nor to be paid sick leave or vacation leaves. The Consultants’ remuneration shall be deemed to cover these items. Any taking of leave by Personnel shall be subject to the prior approval by the Employer and the Consultants shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services is available.

6.5 Change of Personnel

- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants (e.g. death, physical disability or other exceptional circumstances), it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or better qualifications with prior approval of the Employer.
- (b) If the Employer (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Employer’s written request

specifying the grounds therefore, forthwith provide as a replacement a person with qualifications and experience acceptable to the Client.

- (c) Any of the Personnel provided as a replacement under Clauses (a) and (b) above, the billable monthly rate applicable to such person, shall be subject to the prior written approval by the Employer. Except as the Employer may otherwise agree, (i) the Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid to any of the Key Personnel/Professionals provided as a replacement shall not exceed 90% of the remuneration which would have been payable to the Key Personnel/Professionals replaced except in case of death or serious illness, (iii) for total replacement up to 25% of Sub-Professional staff, remuneration shall be reduced by 5% (iv) for total replacement up to between 25% to 50%, of Sub-Professional staff remuneration shall be reduced by 10% and (v) for total replacement beyond 50% of the total of key personnel/Professionals and Sub-Professional staff, the Employer may initiate action for termination and/or debarment of such consultants for future projects of the Employer.

6.6 Resident Project Manager/CRE

If required by the SCC, the Consultants shall ensure that all times during the Consultants' performance of the Services a Chief resident Engineer (CRE), acceptable to the Employer, shall take charge of the performance of such Services.

7.0 Client's Obligations

7.1 Assistance and Exemptions

DELETED

7.2 Access to Land

The Employer shall facilitate Consultant's, unimpeded access to all land in respect of which access is bonafide and required for the performance of the Services. The Consultant will, however, be responsible for any damage to such land or any property thereon resulting from such access caused by the default or negligence of the Consultants or the Personnel of either of them and shall indemnify the Employer against such liabilities.

7.3 Changes in the Applicable Law

DELETED

7.4 Services, Facilities and Property of the Client

DELETED

7.5 Payment

In consideration of Services successfully and satisfactorily performed by the Consultants under this Contract, the Employer shall make to the Consultants such payments and in manner as is provide by Clause GCC 8 of this Contract.

7.6 Counterpart Personnel

DELETED

7.7 Decisions of Client

On all matters properly referred to it in writing by the Consultant, the Employer shall give a decision in writing within a reasonable time.

8.0 Payments to the Consultants

8.1 Cost Estimates and Ceiling Amount

(a) An estimate of the cost of the Services payable is set forth in Appendix E.

(b) Except as may be otherwise agreed under Clause GCC 2.6 and subject to Clause GCC 8.1 (c), payments under this Contract shall not exceed the ceilings specified in the SCC. The Consultants shall notify the Client as soon as cumulative charges incurred for the Services have reached 80% of either of these ceilings.

(c) DELETED

8.2 The **all inclusive monthly payment** due to the Consultant (based on the monthly IPC to be submitted by the Consultant) shall be determined based on actual deployment of various categories of Personnel at the Rates as included in Appendix E. This is all inclusive payment and payment for any other staff outside these categories as well as beyond the deployment mutually agreed upon shall not be admissible.

8.3 Currency of Payment

Currency of Payment under this Contract shall be Indian National Rupees (Rs.)

8.4 Advance Payments, Bank Guarantee, Mode of Billing and Payment

Billing and payments in respect of the Services shall be made as follows:

(a) The Employer shall cause to be paid to the Consultants an interest bearing advance payment as specified in the SCC, and as otherwise set forth below. The advance payment will be due after provision by the Consultants to the Employer of a bank guarantee by a bank acceptable to the Employer in an amount (or amounts) and in a currency (or currencies) specified in the SCC, such Bank Guarantee (i) to remain effective until the advance payment has been fully set off as provided in the SCC, and (ii) to be in the form set forth in

Appendix G hereto or in such other form as the Employer shall have approved in writing.

- (b) As soon as practicable and not later than fifteen (15) days after the end of each calendar month during the period of the Services, the Consultants shall submit to the Employer, in duplicate, itemized statement of the amounts payable pursuant to Clauses GCC 8.2 and 8.4 for such month.
- (c) The Employer shall cause the payment of the Consultants periodically as given in schedule of payment above within thirty (30) days after the receipt by the Employer of bills with supporting documents. Only such portion of a monthly statement that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payments due to the Consultants, the Employer may add or subtract the difference from any subsequent payments. In case the validity of contract is extended for reasons not attributable to Consultants, the payments in such extended period shall be made based on the accepted billable man-month rates and actual deployment of Personnel.
- (d) The final payment (**excluding the Performance Guarantee**) under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultants and approved as satisfactory by the Employer. The Services shall be deemed completed and finally accepted by the Employer and the final report and final statement shall be deemed approved by the Employer as satisfactory ninety (90) calendar days after receipt of the final report and final statement by the Employer unless the Employer, within such ninety (90) day period, gives written notice to the Consultants specifying in detail deficiencies in the Services, the final report or final statement. The Consultants shall thereupon promptly make any necessary corrections, and upon completion of such corrections, the foregoing process shall be repeated. Any amount which the Client has paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract shall be reimbursed by the Consultants to the Employer within thirty, (30) days after receipt by the Consultants of notice thereof. Any such claim by the Employer for reimbursement must be made within twelve (12) calendar months after receipt by the Employer of a final report and a final statement approved by the Employer in accordance with the above.
- (e) All payments under this Contract shall be made to the account of the Consultants specified in the SCC.

9.0 Fairness and Good Faith

9.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

9.2 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration in accordance with Clause GCC 10 hereof.

10.0 Settlement of Disputes

10.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof.

10.2 Dispute Settlement

Any dispute between the Parties as to matters arising pursuant to this contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either party for settlement through Arbitration in accordance with the Rules stipulated in SCC.

Appendix A

Description of the Services

[Give detailed descriptions of the Services to be provided; dates for completion of various tasks, place of performance for different tasks; specific tasks to be approved by Client, etc.]

Details as per TOR (Sections 5)

Appendix B

Reporting Requirements

[List format, frequency, contents of reports and number of copies; persons to receive them; dates of submission, etc. If no reports are to be submitted, state here "Not applicable".]

Please refer TOR (Section 5)

Appendix C

Personnel

[List under:

C-1 Titles [and names, if already available], detailed job descriptions and minimum qualifications, experience of Personnel to be assigned to work on the assignment and staff- months for each.

**Please refer TOR (Sections 5) and details to be given
as per formats given in section 6**

Appendix D

Duties of the Client

[List here under:

F-1 Services, facilities and property to be made available to the Consultants by the Employer.]

Please refer TOR (para 10 of Section 5)

Appendix E

Cost Estimates

List hereunder cost estimate

Note:

1. ***Details to be provided as per formats given in Section 7***

**Appendix F: FORM OF PERFORMANCE SECURITY
(PERFORMANCE BANK GUARANTEE)**

(GCC Clause 5.12) {On non-judicial stamp paper of appropriate value in accordance with Stamp Act. The stamp paper to be in name of Executing Bank}

To
The Managing Director,
Dedicated Freight Corridor Corporation of India Ltd.,
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001.

WHEREAS _____ [*Name and address of Consultants*]¹ (hereinafter called "the consultants") have undertaken, in pursuance of Contract No...._____ dated _____ to provide the services on terms and conditions set forth in this Contract _____ [*Name of Contract*] (hereinafter called the "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Consultants shall furnish you with a "Performance Security" in the form of a Bank Guarantee by a recognized bank (2) for the sum specified therein as security for performance and compliance with his obligations in accordance with the Contract;

AND WHEREAS we, _____ (*Name of Bank*) with its Branch located at _____ (*address of branch*) and Head Office located at _____ (*address of Head Office*) {herein after called as "the Bank} acting through _____ (*name of authorized representative of Bank authorized to sign and incur obligations for and on behalf of the Bank*) have agreed at the request of the Consultants to give the Consultants such a Bank Guarantee;

NOW THEREOF we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Consultants up to a total of _____ [*amount of Guarantee in letters*] (3) _____ [*in words*], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without any demur, cavil, reservation, argument or recourse any sum or sums within the limits of _____ [*amount of Guarantee*] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Consultants before presenting us with the demand.

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

The liability of the Bank under this Guarantee shall not be affected by any change in the constitution of the consultants or of the Bank.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to Rs. _____ (Rs. ____ in words _____) and the guarantee shall remain valid till _____. Unless a claim or a demand in writing is made upon us on or before _____ all our liability under this guarantee shall cease.

Signature and Seal of the Guarantor _____ In presence of

Name and Designation _____ 1. _____

(Name, Signature & Occupation)

Name of the Bank _____

Address _____ 2. _____

(Name & Occupation)

Date _____

1. Give names of all partners if the Consultant is a Joint Venture.
2. The bank guarantee shall be from a Scheduled / Nationalized Indian Bank.
3. Amount as Specified in GCC/TOR/ITB for Performance Security and in specified currency.

Note-The words in Italics are for guidance and shall be deleted in final document.

**Appendix G : Form of Bank Guarantee for Advance Payments
Reference Clause 8.4 of Contract**

(On Non-judicial Stamp Paper of the appropriate value in accordance with Stamp Act. The stamp paper to be in the name of Executing Bank)

Ref: _____ Bank Guarantee: _____
Date: _____

Dear Sir,

In consideration of M/s. _____ (hereinafter referred as the "Client", which expression shall, unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having awarded to M/s.

_____ (hereinafter referred to as the "Consultant" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), a contract by issue of client's Contract Agreement No. _____ dated _____ and the same having been unequivocally accepted by the Consultant, resulting in a Contract valued at _____ for _____ Contract (hereinafter called the "Contract") (**name of work**) and the Client having agreed to make an advance payment to the Consultant for performance of the above Contract amounting to (**in words and figures**) as an advance against Bank Guarantee to be furnished by the Consultant.

We _____ (*Name of the Bank*) having its Head Office at _____ (hereinafter referred to as "the Bank"), which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the client immediately on demand any or, all monies payable by the Consultant to the extent of _____ as aforesaid at any time up to _____ @ _____ without any demur, reservation, contest, recourse or protest and/or without any reference to the consultant. Any such demand made by the client on the Bank shall be conclusive and binding notwithstanding any difference between the Client and the Consultant or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.

We agree that the Guarantee herein contained shall be irrecoverable and shall continue to be enforceable till the Client discharges this guarantee.

The Client shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee, from time to time to vary the advance or to extend the time for performance of the contract by the Consultant.

The Client shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Consultant and to exercise the same at any time in any manner, and either to enforce or to forebear to enforce any covenants, contained or implied, in the Contract between the Client and the Consultant any other course or remedy or security available to the Client.

The Bank shall not be relieved of its obligations under these presents by any exercise by the Client of its liberty with reference to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Client or any other indulgence shown by the Client or by any other matter or thing whatsoever which under law would but for this provision have the effect of relieving the Bank.

The Bank also agrees that the Client, at its option, shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Consultant and notwithstanding any security or other guarantee that the Client may have in relation to the Consultant's liabilities.

Notwithstanding anything contained herein above our liability under this guarantee is limited to _____ and it shall remain in force up to and including _____ and shall be extended from time to time for such period (not exceeding one year), _____ as _____ may _____ be _____ desired _____ by _____ M/s. _____ on whose behalf this guarantee

has been given.

Dated this _____ day of _____ 200 _____ at _____

WITNESS

(Signature) (Signature)

(Name) (Name)

(Official Address) Designation (with Bank stamp)

Attorney as per Power of

Attorney No. _____

Dated _____

Strike out, whichever is not applicable.

Note 1: The stamp papers of appropriate value shall be purchased in the name of bank who issues the "Bank Guarantee".

Note 2: The bank guarantee shall be from a Scheduled / Nationalized Indian Bank.

Appendix H

Deleted

Section 9

Special Conditions of Contract

SECTION – 9

SPECIAL CONDITIONS OF CONTRACT

A) Amendments of, and Supplements to, Clauses in the General Conditions of Contract.

**GCC
Clause
No.**

Amended / Supplemented as

- 1.5.1 The addresses are:
1. For Client/Employer :
Group General Manager/Engg/I
Dedicated Freight Corporation of India Ltd.
5th Floor, Pragati Maidan Metro Station Building Complex,
New Delhi - 110001

Facsimile : (91) – 11-24101701, 011-23370602
Email : ggm.engg1@dfcc.in
 2. For Consultant:

- 1.7 The Member in Charge is :
- 2.2 The time period shall be four (4) months or such time period as the parties may agree in writing.
- 2.3 (a) The time period shall be seven (7) days or such other time period as the parties may agree in writing.
- 2.3 (b) The Consultant shall be responsible for project management for a period up to one year beyond the date of completion of the work. The estimated duration of consultancy work is a period of **3½ years** from the date of award of consultancy contract. The Performance Guarantee of Consultant shall remain valid for a further period of two months beyond the date of completion of the services.
- 2.6 The client may notify the consultant to alter, amend, omit, add to, or otherwise vary the services up to twenty-five (25%) percent of contract value on same rates, terms and conditions and the consultants shall be bound by such variations. Beyond 25% of

**GCC
Clause
No.**

Amended / Supplemented as

contract value, new rates shall be agreed between Client and the Consultants. In such an event, the Consultants shall submit to the client an estimate for the proposed changes in services within fourteen (14) days of receipt of a notice of variation.

2.7 Sample deficiencies and delays in services may include but not limited to:

- 1) Not acting impartially or acting in collusion with contractor in recommending award of variation or of fixation of new rates.
- 2) Not keeping proper records regarding quality control, inspections and rejection / rectifications of work.
- 3) Failure to give proper and timely advice to Client / Contractor to enable correction during execution.
- 4) Recommending extension to the Contractor with a view to extending duration of supervision services.
- 5) Refusing to give reasons for recommendations when called for by the Client.
- 6) Not being fully conversant with Manuals, Specifications, Standards, etc.
- 7) Certifying sub-standard work.
- 8) Not exercising required scrutiny / non-approval of temporary works.
- 9) Permitting subletting of any part of work without authorization from client.

5.4 The Consultants shall not use these documents for purposes unrelated to this contract without prior written approval of the Client.

5.7 The risks and coverage shall be as follows:

- a) Third Party motor vehicle liability insurance as required under Motor Vehicles Act 1998 in respect of motor vehicles operated in India by the Consultants or their personnel.
- b) Third party liability insurance with a minimum coverage for Rs. 10 Lakhs for period of consultancy.
- c) Employer's liability and worker's compensation insurance in

**GCC
Clause
No.**

Amended / Supplemented as

respect of the personnel of the consultants and of sub-consultants in accordance with relevant provisions of Applicable Law, as well as, with respect to such personnel, any such lift, health, personal accident, travel, household or other insurance as may be appropriate, and

- d) Professional Liability Insurance with a minimum coverage equal to total contract value for this contract, (to be reduced each year by subtracting the payments received against the Contract till the end of the preceding year) and
 - e) Insurance against loss of or damage to any documents prepared by the Consultants in performance of the services.
- 5.12.1 1) The Performance Guarantee shall be Indian Rupees 40 (Forty) Lakhs. Within fifteen days of issue of Letter of Award for the Contract, the Consultants shall submit Performance Guarantee for an amount of Indian Rupees 40 (Forty) Lakhs on the format as prescribed hereof.
- 2) The Performance Guarantee shall be valid for a period of two months after completion of Defect Liability period of Design and Build Contract/s for project.
- 8.1 (a) The cost of services under this contract shall be paid in Indian Rupees (INR) only.
- 8.1 (b) All payments under this Contract shall be made in Indian Rupees (INR) only. The ceiling amount payable in INR is Rs. _____ (Rupees _____) which shall be increased after every 18 months from date of commencement by increasing it by a factor of eight (8%) percent.
- 8.2 It is understood that the all inclusive rates shall cover all the costs of the Consultants and nothing extra shall be admissible on these rates except for escalation which will be admissible as per formula below :
The formula for calculation of escalation in consultancy fee shall be as hereunder:

Rates set forth in Appendix E of GCC shall be adjusted after every eighteen (18) months from date of commencement by increasing it by factor of eight (8%) percent.
- 8.3 (a) All payments under this contract shall be made in Indian Rupees (INR). Any payments to be made in foreign currency by consultants shall be the responsibility of consultants.

**GCC
Clause
No.**

Amended / Supplemented as

- 8.4 (a) The following provisions shall apply to the advance payment and the advance payment bank guarantee:
- a) An advance payment @ Five percent (5%) of the Contract Value (ceiling amount for the services fixed at time of award of contract) in Indian Rupees against a Bank Guarantee for same amount from Scheduled Bank / Nationalized Indian Bank on format prescribed herein shall be paid.
 - b) The advance payment shall carry a simple interest equal to the Public Lending Rate (PLR) of the State Bank of India plus one percent (1%) per annum. The PLR shall be taken as applicable on date of release of the advance payment.
 - c) The advance payment shall be paid only after receipt of proper valid Performance Guarantee and signing of Contract Agreement.
 - d) The advance payment including interest thereon amount shall be recovered in equal installments for the first twenty four (24) months of service until the advance payment and interest thereon have been fully set off.
 - e) If for any month, the advance payment recovery installment is more than the amount billed, there will be no negative billing on this account and the balance of recovery will be carried over to subsequent month/s.
- 8.4(b) All payments under this contract shall be made in Indian Rupees (INR).
- 8.4 (c) No interest shall be paid for any difference of payment added in subsequent payment.
- 8.4 (e) Payment to the account of Consultant shall be made to:

Account No. :

Account Name :

Bank Details :

**GCC
Clause
No.**

Amended / Supplemented as

- 10.2 1) **Settlement of Disputes**
The demand for arbitration shall specify the matters, which are in question, or subject of the dispute/s difference/s as also amount of claim item-wise. Only such dispute/s of difference/s in respect of which demand has been made by the party / parties shall be referred to Arbitration. And other matters shall not be included in reference.
- 2) **Nomination of Arbitrators / sole Arbitrator**
Matters to be arbitrated upon shall be referred to a sole Arbitrator if the total value of the claim is up to Rs. 50 Lakhs and to a panel of three Arbitrators if total value of claim is more than Rs. 50 Lakhs. The Employer shall provide a panel of three Arbitrators which may also include DFCC officers for claims up to Rs. 50 Lakhs and a panel of five Arbitrators which may also include DFCC officers for claims more than Rs. 50 Lakhs. The Client at the time of offering the panel of Arbitrator(s) to be appointed as Arbitrator shall also supply the information with regard to the qualifications of the said Arbitrator nominated in the panel along with their professional experience, phone nos. and addresses to the contractor. The Contractor shall have to choose the sole Arbitrator from the panel of three and / or one Arbitrator from the panel of five in case three Arbitrators are to be appointed. The Employer shall also choose one Arbitrator from this panel of five and the two so chosen will choose the third Arbitrator (the Presiding Arbitrator) from the panel only. The Arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice / demand of appointment of Arbitrator from either party. Neither party shall be limited in the proceedings before such Arbitrator(s) to the evidence or arguments put before the Engineer for the purpose of obtaining his decision.

No decision given by the Client in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the Arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to Arbitrator(s). The arbitration proceedings shall be held in Delhi only. The language of proceedings that of documents and communications shall be English.

This is a condition of Contract Agreement / Arbitration that Arbitrators so nominated shall be professional Engineer/s. In case of 3 Arbitrators, one of the Arbitrators shall be on an accounts officer.

**GCC
Clause
No.**

Amended / Supplemented as

This is also a condition of contract that in case above procedure for nomination of arbitrator/s cannot be adopted due to whatsoever reason may be, then it will be deemed that no arbitration clause exist in contract agreement and normal law of land shall prevail to settle the disputes.

3) No Suspension of Work

The reference to arbitration shall proceed notwithstanding that works shall not then be or be alleged to be complete, provided always that the obligations of the Client, and the Consultants shall not be altered by reasons of arbitration being conducted during the progress of works. Neither party shall be entitled to suspend the work to which the dispute relates on account of arbitration and payments to the consultants shall continue to be made in terms of the contract.

4) Award to be Binding on All Parties.

The award of the sole arbitrator or a bench of three arbitrators shall be binding on all parties.

5) Rules Governing the Arbitration Proceedings

The arbitration proceedings shall be governed by Indian Arbitration and Conciliation Act 1996, as amended from time to time including provisions in force at the time the reference is made.

6) Substitute Arbitrators

If for any reason an Arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original Arbitrator.

7) Interest on Award Amount

Where the arbitral award is for payment of money, no interest shall be payable on the whole or any part of the money for any period till the date on which the award is made.

8) Fee to Arbitrators

The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include the fees of the Arbitrator(s) as per the rates fixed by the Employer from time to time.