

Contract: DMRC/CPM1/PH-III/FOB at BADLI STATION/1 (Notice Inviting Tender): Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase–III DMRC Project.



DELHI METRO RAIL CORPORATION LIMITED

Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase–III DMRC Project

CONTRACT NO: DMRC/CPM1/PH-III/FOB at BADLI STATION/1

TENDER DOCUMENTS

VOLUME 1

NOTICE INVITING TENDER

INSTRUCTION TO TENDERERS

FORM OF TENDERS (Including Appendices)

**DELHI METRO RAIL CORPORATION LTD.
OFFICE OF- CPM-1, 9/11, MALL ROAD, DELHI-110054**

Contract: DMRC/CPM1/PH-III/FOB at BADLI STATION/1 (Notice Inviting Tender): Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase–III DMRC Project.

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NOTICE INVITING TENDER (NIT)

1.1 GENERAL

1.1.1 Name of Work:

Delhi Metro Rail Corporation (DMRC) Ltd. invites Open E-Tenders from eligible applicants, who fulfil qualification criteria as stipulated in Clause 1.1.3 of NIT, for the work **Contract: CPM1/FOB at BADLI STATION/1 "Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase–III DMRC Project"**.

The brief scope of the work and site information is provided in ITT Clause A1 (Volume-1) and Employer's Requirements (Volume–3).

1.1.2 Key details :

Approximate cost of work	INR 3,60,64,527.00
Tender Security amount	INR 3,60,645.00
Completion period of the Work	04 months
Tender documents on sale	From 22.11.2016 to 02.01.2017 (up to 1500 hrs) on e-tendering website https://eprocure.gov.in/eprocure/app . Tender document can only be obtained after registration of tenderer on the website https://eprocure.gov.in/eprocure/app .
Cost of Tender documents	INR 21000/- (inclusive of 5% DVAT) Non-Refundable (Demand Draft/Banker's cheque) drawn on a Scheduled Commercial bank based in India and should be in favour of "Delhi Metro Rail Corporation Ltd." payable at New Delhi.) Cost of tender documents i.e., D.D./Banker's cheque, in original, shall be accepted only up to 1500 hours on 02.01.2017 in the office of Chief Project Manager/1, 9/11, Mall Road Office, Delhi-110054.
Pre-bid Meeting	05.12.2016 @ 1500 Hrs
Last date of Seeking Clarification	06.12.2016 upto 1700hrs. Queries/Clarifications from bidders after due date and time shall not be acknowledged.
Last date of issuing addendum	13.12.2016
Last Date & time of Submission of Tender Online	02.01.2017 up to 1500 hrs.
Date & time of opening of Technical Bid Online.	02.01.2017 @ 1630 hrs at Metro Bhawan, 5th Floor, A- Wing, Barakhamba Road, Delhi -110001

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Date & time of opening of Financial Bid Online	Shall be informed after evaluation of technical bid through website www.tenderwizard.com/DMRC .
Authority and place for submission of tender cost, tender security, required documents (if any), seeking clarifications etc.	OFFICE OF- CPM-1 at 9/11, MALL ROAD OFFICE, DELHI-110054.
<p>NOTE: The tender documents (non-transferable) can only be obtained after registration of tenderer on the website www.eprocure.gov.in/eprocure/app. Downloaded tender document will not be entertained in office in physical form. All D.D. should be drawn in favour of "Delhi Metro Rail Corporation Ltd.", payable at New Delhi. The bidder who fails to submit the tender cost & tender security (in original) within stipulated scheduled deemed to be rejected. Any corrigendum, addendum etc issued shall be part of this tender document and shall be made available on DMRC website https://eprocure.gov.in/eprocure/app. Bidders under MSME Registered Company shall submit a reference letter with all supporting documents to above mention addressee of Chief Project Manager/1, before 30.12.2016.</p>	

1.1.3 QUALIFICATION CRITERIA :

1.1.3.1 Eligible Applicants :

- i. The tenders for this contract will be considered only from those tenderers (proprietorship firms, partnerships firms, companies, corporations, consortia or joint ventures) who meet requisite eligibility criteria prescribed in the sub-clauses of clause 1.1.3 of NIT. In the case of a JV or Consortium, all members of the Group shall be jointly and severally liable for the performance of whole contract.
- ii. (a) A non-Indian firm is permitted to tender only in a joint venture or consortium arrangement with any other Indian firm having minimum participation interest of 26% or their wholly owned Indian subsidiary registered in India under Companies Act-1956 with minimum 26% participation
 - (b) A tenderer shall submit only one bid in the same tendering process, either individually as a tenderer or as a partner of a JV. A tenderer who submits or participates in, more than one bid will cause all of the proposals in which the tenderer has participated to be disqualified. No tenderer can be a subcontractor while submitting a bid individually or as a partner of a JV in the same bidding process. A tenderer, if acting in the capacity of subcontractor in any bid, may participate in more than one bid, but only in that capacity.
- iii. Tenderers shall not have a conflict of interest. All Tenderers found to have a conflict of interest shall be disqualified. Tenderers shall be considered to have a conflict of interest with one or more parties in this bidding process, if:
 - (a) a tenderer has been engaged by the Employer to provide consulting services for the preparation related to procurement for on implementation of the project;
 - (b) a tenderer is any associates/affiliates (inclusive of parent firms) mentioned in subparagraph (a) above; or
 - (c) a tenderer lends, or temporarily seconds its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for on implementation of the project, if the personnel would be involved in any capacity on the same project.

- iv. A firm, who has purchased the tender document in their name, can submit the tender either as individual firm or in joint venture/Consortium. However, the lead partner in case of JV shall be one who has experience of similar work.
- v. Any Central / State government department / public sector undertaking / other government entity or local body must not have banned business with the tenderer (any member in case of JV) as on the date of tender submission. Also no contract of the tenderer should have been rescinded / terminated by DMRC / Central or State Govt. Department/ Public Sector undertaking/Other Govt. Entity or local body after award during last 5 years due to non-performance of the tenderer or any of JV/Consortium members. The tenderer should submit undertaking to this effect in **Appendix-19** of Form of Tender.

The overall performance of the tenderer (all members in case of JV/Consortium) shall be examined for all the ongoing Civil Engineering works and works completed within last one year, of value more than 40% of NIT cost of work. The tenderer shall provide list of all such works in the prescribed Performa given in **Appendix-20** of the Form of Tender. In addition the tenderer shall also submit certificate issued by the client/Employer for satisfactory performance for all these works with respect to completion of work/execution of work (for running works) failing which their tender submission shall not be evaluated and the tenderer shall be considered non-responsive and non-compliant to the tender conditions. The performance certificate issued by the client should not be older than one month from the last day of the previous month of tender submission.

If the tenderer or any of the constituent 'substantial member(s)' of JV/Consortium does not meet the criteria stated in the **Appendix-20**, the tenderer including the constituent 'substantial member(s)' of JV/Consortium shall be considered ineligible for participation in tender process and they shall be considered ineligible applicants in terms Clause 1.1.3.1 of NIT.

- vi. Tenderer (any member in case of JV/consortium) must not have paid liquidated damages of 10% (or more) of the contract value in a contract due to delay or penalty of 10% (or more) of the contract value due to any other reason during last five years. The tenderer should submit undertaking to this effect in **Appendix-21** of Form of Tender.
- vii. Tenderer (any member in case of JV/consortium) must not have suffered bankruptcy/ insolvency during the last 5 years. The tenderer should submit undertaking to this effect in **Appendix-22** of Form of Tender.
- viii. LEAD PARTNER/ NON SUBSTANTIAL PARTNERS/ CHANGE IN JV/ CONSORTIUM
 - a. Lead partner must have a minimum of 26% participation in the JV/Consortium.
 - b. Partners having less than 26% participation will be termed as non-substantial partner and will not be considered for evaluation which means that their financial soundness and work experience shall not be considered for evaluation of JV/Consortium.
 - c. In case of JV/Consortium, change in constitution or percentage participation shall not be permitted at any stage after their submission of application otherwise the applicant

shall be treated as non-responsive.

d. The tenderer, in case of JV/Consortium, shall clearly and unambiguously define the role and responsibilities for each substantial/non-substantial partner in the JV agreement/ MOU submitted vide foot note (d) of **Appendix-6** of Form of Tender, providing clearly that any abrogation/subsequent re-assignment of any responsibility by any substantive/non-substantive partner of JV/Consortium in favour of other JV/Consortium partner or any change in constitution of partners of JV/Consortium (without written approval of Employer) from the one given in JV agreement /MOU at tender stage, will be treated, as 'breach of contract condition' and/or 'concealment of facts' (as the case may be), vide GCC clause 4.33.1 [a (ii) and (iii)] and acted accordingly.

The Employer in such cases, may in its sole discretion take action under clause 4.33.1 (b) and/or under clause 4.33.1(c) of GCC against any member(s) for failure in tenderer's obligation and declare that member(s) of JV/Consortium ineligible for award of any tender in DMRC or take action to terminate the contract in part or whole under clause 13 of GCC as the situation may demand and recover the cost/damages as provided in contract.

1.1.3.2 Minimum Eligibility Criteria:

A. Work Experience: The tenderers will be qualified only if they have completed work(s) during last seven years ending **30.10.2016** as given below:

(i) At least one work of Prefabricated Steel Structure/Steel Bridge of value of **Rs. 2.89 crores** or more involving Fabrication and Erection.

If the above work of **Rs. 2.89 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **Rs. 1.45 crores** outside the country of the foreign partner.

OR

(ii) Two works of Prefabricated Steel Structure/Steel Bridge of value of **Rs.1.80 crores** or more involving Fabrication and Erection.

If the above work of **Rs. 1.80 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **Rs. 0.90 crores** outside the country of the foreign partner.

OR

(iii) Three works of Prefabricated Steel Structure/Steel Bridge of value of **Rs. 1.44** crores or more involving Fabrication and Erection.

If the above work of **Rs. 1.44 crores** has been done by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done works equal to **Rs. 0.72 crores** outside the country of the foreign partner.

Notes :

- The tenderer shall submit details of works executed by them in the Performa of **Appendix-17 of FOT** for the works to be considered for qualification of work experience criteria. Documentary proof such as completion certificates from client clearly indicating the nature/scope of work, actual completion cost and actual date of completion for such work should be submitted. **The offers submitted without this documentary proof shall not be evaluated.** In case the work is executed for private client, copy of work

order, bill of quantities, bill wise details of payment received certified by C.A., T.D.S certificates for all payments received and copy of final/last bill paid by client shall be submitted.

- Value of successfully completed portion of any ongoing work up to **30.10.2016** will also be considered for qualification of work experience criteria.
- For completed works, value of work done shall be updated to **30.10.2016** price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. The exchange rate of foreign currency shall be applicable 28 days before the submission date of tender.
- In case of joint venture / Consortium, full value of the work, if done by the same joint venture shall be considered. However, if the qualifying work(s) were done by them in JV/Consortium having different constituents, then the value of work as per their percentage participation in such JV/Consortium shall be considered.
- If the similar work of Prefabricated Steel Structure/Steel Bridge includes other miscellaneous works than the client's certificate clearly indicating the amount for the construction of Prefabricated Steel Structure/Steel Bridge shall be furnished by the tenderer along with their submissions.

B. Financial Standing: The tenderers will be qualified only if they have minimum financial capabilities as below:

- (i) **T1 – Liquidity:** It is necessary that the firm can withstand cash flow that the contract will require until payments received from the Employer. Liquidity therefore becomes an important consideration.

This shall be seen from the balance sheets and/or from the banking reference. Net current assets and/or documents including banking reference, should show that the applicant has access to or has available liquid assets, lines of credit and other financial means to meet cash flow of **Rs.1.55 Crores** for this contract, net of applicant's commitments for other Contracts. Banking reference should contain in clear terms the amount that bank will be in a position to lend for this work to the applicant/member of the Joint Venture/Consortium. In case the Net Current Assets (as seen from the Balance Sheets) are negative, only the Banking references will be considered. Otherwise the aggregate of the Net Current Assets and submitted Banking references will be considered for working out the Liquidity.

The banking reference should be from a Scheduled Bank in India or (in case of foreign parties) from an international bank of repute acceptable to DMRC and it should not be more than 3 months old as on date of submission of bids.

In Case of JV- Requirement of liquidity is to be distributed between members as per their percentage participation and every member should satisfy the minimum requirement.

Example: Let member-1 has percentage participation = M and member-2 has percentage participation = N. If minimum liquidity required is 'W' then liquidity of member-1 $\geq \frac{W M}{100}$

and liquidity of member-2 $\geq \frac{W N}{100}$.

- (ii) **T2 - Profitability:** Profit before Tax should be Positive in at least 2 (two) year, out of the last five audited financial years.

In Case of JV: The profitability of only lead member shall be evaluated.

- (iii) **T3 - Net Worth:** Net Worth of tenderer during last audited financial year should be \geq **Rs. 2.16 Crores**

In Case of JV- Net worth will be based on the percentage participation of each Member.

Example: Let Member-1 has percentage participation = M and Member-2 has = N. Let the Net worth of Member-1 is 'A' and that of Member-2 is 'B', then the Net worth of JV will be

$$= \frac{AM+BN}{100}$$

(iv) T4 - Annual Turnover: The average annual turnover from construction of last five financial years should be \geq **Rs. 8.66 Crores.**

The average annual turnover of JV will be based on percentage participation of each member.

Example: Let Member-1 has percentage participation = M and Member - 2 has = N. Let the average annual turnover of Member-1 is 'A' and that of Member-2 is 'B', then the average annual turnover of JV will be

$$= \frac{AM+BN}{100}$$

Notes :

- Financial data for latest last five audited financial years has to be submitted by the tenderer in **Appendix-18 of FOT** along with audited balance sheets. The financial data in the prescribed format shall be certified by Chartered Accountant with his stamp and signature. In case audited balance sheet of the last financial year is not made available by the bidder, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous '4' audited financial years will be taken into consideration for evaluation. If audited balance sheet of any year other than the last year is not submitted, the tender may be considered as non-responsive.
- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

1.1.3.3 Bid Capacity Criteria :

Bid Capacity: The tenderers will be qualified only if their available bid capacity is more than the approximate cost of work as per NIT. Available bid capacity will be calculated based on the following formula:

$$\text{Available Bid Capacity} = 2 * A * N - B$$

Where,

A = Maximum of the value of construction works executed in any one year during the last five financial years (updated to **30.10.2016** price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year).

N = No. of years prescribed for completion of the work

B = Value of existing commitments (**as on 30.10.2016**) for on-going construction works during period of **04 months w.e.f. 01.11.2016**.

Notes:

- Financial data for latest last five financial years has to be submitted by the tenderer in **Appendix-15 of FOT** along with audited financial statements. The financial data in the

prescribed format shall be certified by the Chartered Accountant with his stamp and signature in original.

- Value of existing commitments for on-going construction works during period of **04 months** w.e.f . **01.11.2016** has to be submitted by the tenderer in **Appendix-16 of FOT**. These data shall be certified by the Chartered Accountant with his stamp and signature.
- In the case of a group, the above formula will be applied to each member to the extent of his proposed participation in the execution of the work. If the proposed % participation is not mentioned then equal participation will be assumed.

Example for calculation of bid capacity in case of JV / Group

Suppose there are 'P' and 'Q' members of the JV / group with their participation in the JV / group as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out 'X' and 'Y' respectively, then Bid Capacity of JV / group shall be as under:

$$\text{Bid Capacity of the JV / group} = 0.7X + 0.3Y$$

1.1.3.4 The tender submission of tenderers, who do not qualify the minimum eligibility criteria & bid capacity criteria stipulated in the clauses 1.1.3.2 to 1.1.3.3 above, shall not be considered for further evaluation and therefore rejected. The mere fact that the tenderer is qualified as mentioned in sub clause 1.1.3.2 to 1.1.3.3 shall not imply that his bid shall automatically be accepted. The same should contain all technical data as required for consideration of tender prescribed in the ITT.

1.1.4 **The Tender documents consist of :**

Volume 1

Notice Inviting Tender
Instructions to Tenderers (including Annexures)
Form of Tender (including Appendices)

Volume 2

Special Conditions of Contract (including Schedules)

Volume 3

Employer's Requirements

Volume 4

Technical Specifications

Volume 5

Tender Drawings

Volume 6

Bill of Quantities

Volume 7

Condition of Contract on Safety, Health & Environment (SHE) Ver. 1.2

Following document, even though not attached as a part of tender document, will form integral part of the tender. These documents will form integral part of contract agreement also. The work is to be carried out in accordance with GCC and all provisions contained in the Conditions of Contract shall be strictly followed. These documents can be purchased separately from DMRC.

General conditions of contract (Part Design & Build only).

- 1.1.5 The contract shall be governed by the documents listed in Para 1.1.4 above along with latest edition of CPWD Specification, IRS Specifications & MORTH Specifications. These may be purchased from the market.
- 1.1.6 The tenderers may obtain further information/ clarification, if any, in respect of these tender documents from the office of CPM-1, 9/11, MALL ROAD, DELHI-110054.
- 1.1.7 All tenderers are hereby cautioned that tenders containing any material deviation or reservations as described in **Clause. E 4.0** of “Instructions to Tenderers” and/or minor deviation without quoting the cost of withdrawal shall be considered as non-responsive and is liable to be rejected.
- 1.1.8 Late tenders (received after date and time of submission of bid) shall not be accepted under any circumstances.
- 1.1.9 Tenders shall be valid for a period of **180 days** (both days inclusive i.e. the date of submission of tenders and the last date of period of validity of the tender) from the date of submission of Tenders and shall be accompanied with a tender security of the requisite amount as per clause C18 of ITT.
- 1.1.9.1 DMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No tenderer shall have any cause of action or claim against the DMRC for rejection of his proposal.

Please note carefully the requirements for submitting tenders and the date & time for submittal.

- 1.1.10 The intending shortlisted tenderers must be registered on e-tendering portal <https://eprocure.gov.in/eprocure/app>. Those who are not registered on the e-tendering portal shall be required to get registered beforehand. After registration, the tenderer will get user id and password. On login, tenderer can participate in tendering process and can witness various activities of the process
- 1.1.11 The authorized signatory of intending bidder, as per Power of Attorney (POA), must have valid class-III digital signature. The tender document can only be downloaded or uploaded using Class-III digital signature of the authorized signatory.
- 1.1.12 Tender submissions will be made online after uploading the mandatory scanned documents towards cost of tender documents such as Demand Draft or Pay Order or Banker’s Cheque from a Scheduled commercial bank based in India and towards Tender Security such as Bank Guarantee or Demand Draft or Pay Order or Banker’s Cheque from a Scheduled commercial bank based in India and other documents as stated in the tender document.
- 1.1.13 DMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No tenderer shall have any cause of action or claim against the DMRC for rejection of his proposal.
- 1.1.14 Tenderers are advised to visit the site before offering their rates.
- 1.1.15 Bidders shall note that the maximum file size that can be uploaded is 5 MB and in the form of pdf/jpg/jpeg format. All the uploaded files in tender submission should be named properly and

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arranged systematically.

1.1.16 The bidders are advised to keep in touch with e-tendering portal <https://eprocure.gov.in/eprocure/app> for updates. Any corrigendum, addendum etc issued shall be part of this tender document and shall be made available on this e-tendering portal.

**Chief Project Manager-1,
Delhi Metro Rail Corporation Ltd**

SCOPE OF WORK

2.0 GENERAL

Name of Work: Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase-III DMRC Project.

2.1 WORK CONTENT

2.1.1 Brief Scope

- a) Site clearance, dismantling of obstructions etc., before commencement of works, all as specified or as directed.
- b) True and proper demarcation, layout of work, provision of all necessary labour, instruments and levels and appliances in connection with all above mentioned work as specified or as directed by Engineer-in-Charge or the representative of DMRC.
- c) The contractor has to ensure cleanliness at site. Nothing extra shall be payable on this account.
- d) Any other item of work as may be required to be carried out for completing the job in all respects in accordance with provisions of contract and or to ensure the safety of the work during and after construction.
- e) All aspects of quality assurance, including testing of various components of the work, as specified or as directed.
- f) Clearing site after construction and handing over of all the works, as specified and directed.
- g) Period of completion is **Four months** from date of issue of "letter of acceptance".
- h) Defect liability is twelve months from date of issue of "completion certificate".
- i) Submission of completion (i.e. 'As-Build') drawings and other related documents as specified.
- j) The contractor has to get necessary permission/NOC from the Railway authority for working in such locations. DMRC will assist for getting them permission from concerned regulatory authorities for working in such locations. The charges for land/ power / traffic blocks payable to Railway, if required will borne by DMRC.
- k) Provide provision of Escalator -03 no. along with staircase at location mentioned in Tender drawing no. **DMRC/PH-III/CPM-I/Badli/Concept plan of FOB (BM-1535-01-01)**.
- k) Execution of steel roof including portals, purlins, sheetings, gutters, down taken pipes etc. for the Foot Over Bridge for the station. All the fabrication works involve welding of structural steel plates. Only Automatic submerged arc welding is permitted. It is also planned that all the site connections of fabricated members will be done by using HSFG bolts. Hence contractor has to make the holes for the site bolted connection while fabricating the members. All the HSFG bolts and its compatible nuts and washers will be also supplied by the contractor. All the plates used for fabrication has to be sand blasted and coated with primer and internal and external painting coats as specified. The fabricated members are required to be loaded and transported to individual station site for assembly and erection etc. by the contractor.

The value of the work shall be on rates accepted in the letter of acceptance subject to such additions thereto or deductions there from as may be made under the provisions of the contract.

- 2.1.2 The work is to be constructed and maintained as per relevant codes, specifications, Special Specifications, drawings and /or as directed by the Engineer.
- 2.1.3 The scope of works shall include RCC foundations, brick works, flooring & finishing, Erection and fabrication of steel FOB etc. but not limited to the follows:
- a) Site clearance and dismantling of obstructions etc., before commencement of work as specified or as directed;
- 2.1.4 The work activities will have to be planned in such a manner that they do not obstruct or interfere the traffic on the existing roads/railways and other utilities. Where work is required to be carried out at locations adjacent to such roads/railways; utilities, structures etc. suitable safety and protection arrangements will have to be ensured for which nothing extra will be payable. It should be ensured that no damage is caused to any such element and Engineer/Employer shall be indemnified against such damage at no extra cost.
- 2.1.5 Supply of structural steel as per Special Specifications will include the following but not limited:
- i) Preparation of complete detailed fabrication drawings based on the design drawings, required for all the permanent structures.
- ii) Procurement of all raw steel materials for fabrication, taking into account wastage margin, including storage and upkeep of the materials.
- iii) Procurement of all raw steel materials, labour, tools and plant and all consumable required for fabrication and supply of all necessary bolts, nuts, washers with necessary wastage margins.
- iv) Fabrication of the steel works in accordance with the approved fabrication drawings, including all shop assembling, matching and marking. Manufacture/Fabrication and provision of all jigs, fixings, manipulators etc. are required for the fabrication.
- v) Provision of shop painting to all fabricated steelworks, as per requirements of the related specification of the painting.
- vi) Suitability marking, bundling and packing for transport of all fabricated materials.
- vii) Preparing and furnishing detailed bill of materials, drawing office dispatch lists, bolts lists and any other lists of bought out items required in connection with fabrication of the structural steel works complete as per RDSO guidelines.
- 2.1.6 Provision of roof sheeting, gutter complete with down take pipes etc. including purlins, runners etc.
- 2.1.7 The contractor shall be responsible for complete civil work, FOB & erection with roof at entry/exist of staircases/Escalator all respect. The contractor shall ensure the presence of the qualified and experience Engineer during complete erection work at site to solve problem related to fabrication and for smooth completion of work at site.
- 2.1.8 All major modifications of the fabricated steel structures, as directed by the Engineer, including but not limited to the following:-
- i) Removal of bends, kinks, twists etc. for parts damaged during transport and handling.
- ii) Cutting, chipping, filling, grinding etc. if required for preparation and finishing of site.

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Connections.

- iii) Reaming of holes for use of higher size bolt if required.
 - iv) Re-fabrication of parts damaged beyond repair during transport and handling or re-fabrication of parts, which are incorrectly fabricated.
 - v) Fabrication of parts omitted during fabrications by error, or subsequently found necessary.
 - vi) Drilling of holes which are either not drilled at all or are drilled in incorrect locations during fabrication.
 - vii) Carry out tests in accordance with the related specification.
- 2.1.9 Any other item of work as may be required to be carried out for completing the fabrication or erection of steel roof for entry/exist of staircase for Foot Over Bridge including all necessary interfaces works with DMRC & its authorized stations contractors and system-wide contractors in all respects in accordance with provisions of the contract.

2.2 INSPECTION

DMRC may appoint an independent agency to ensure the quality checking of to insure of supply, fabrication and erections of structural steel structures. The Contractor shall ensure the complete co-operation with the agency to perform their work satisfactorily. In addition DMRC also reserves right to undertake quality check and inspection directly by itself.

2.3 DESIGN CRITERIA

The shop drawing should cover all the items pertaining to all temporary works required for fabrication, shop assembling and transportation scheme for various structural elements. The contractor shall himself formulate a practical and viable scheme for fabrication of all structural members. The tenderer should specify the scheme along with the tender that he proposes to adopt for carrying out all the works including fabrication transportation and erection at site.

2.4 FABRICATION DEPOT

Contractor shall use his own premises/workshop for fabrication of structural steel work.

2.5 REFERENCE TO THE STANDARD CODES OF PRACTICE

- 2.5.1 All Standards, Technical Specifications and Codes of practice referred to shall be latest editions including all applicable official amendments and revisions. The Contractor shall make available at site all relevant Indian Standard Codes of practice and IRSC & TRC Codes as applicable.
- 2.5.2 Wherever Indian Standards do not cover some particular aspects of design/ construction, relevant British German Standards will be referred to. The Contractor shall make available at site such standard codes of practice.
- 2.5.3 In case of discrepancy among Standard codes of practice, Technical Specifications and provisions in sub clauses in this NIT, the order of precedence will be as below:
- i) Provision in NIT
 - ii) Technical Specifications,
 - iii) CPWD specifications
 - iv) Standard Codes of Practice.

In case of discrepancy among Standard Codes of Practice, the order of precedence will be IRS, IRC, IS, BS, DIN.

2.6 DIMENSION

As regards errors, omissions and discrepancies in specifications and drawings, relevant clause of special conditions of contract will apply.

The levels, measurements and other information concerning the existing site as shown on the conceptual/layout drawings are believed to be correct, but the contractor should verify them for himself and also examine the nature of the ground as no claim or allowance whatsoever will be entertained on account of any errors or omissions in the levels or strata turning out different from what is shown on the drawings.

2.7 ASSOCIATED WORKS

Works to be performed shall also include all general works preparatory to the construction and works of any kind necessary for the due and satisfactory construction, completion and maintenance of the works to the intent and meaning of the drawings adopted and technical specifications, to best Engineering standards and orders that may be issued by the Engineer from time to time, compliance by the agency with all Conditions of Contract, supply of all materials, apparatus, plants, equipment, tools, fuel, water, strutting, timbering, transport, offices, stores, workshop, staff, labour and the provision of proper and sufficient protective works, diversion, temporary fencing, lighting and watching required for the safety of the public and protection of works on adjoining land; first –aid equipment, sanitary accommodation for the staff and workmen, effecting and maintenance of all insurances, the payment of all wages, salaries, fees, royalties, duties or the other charges arising out of the erection of works and the regular clearance of rubbish, clearing up, leaving the site perfect and tidy on completion.

2.8 TIME SCHEDULE

The agency shall submit with the tender "Time Schedule" for completion of various portions of works. This schedule is to be within the overall completion period of Four months. The detailed programme in the form of a quantified bar chart or CPM network shall include all activities starting from design to completion.

2.9 TRAFFIC MANAGEMENT

The Contractor shall make the detailed plans of erection and submit to Nr.Railway for approval. The work is to be executed with proper liaison with Nr.Railway and Land owning agency. Necessary assistance will be given by DMRC. The Contractor should inspect the site. The Contractor shall also strengthen the road where the diversions are planned by widening, repairing to the road surface etc.

2.10 LABOUR WELFARE FUND

The labor welfare fund will be created jointly by DMRC and the contractors. The contractor shall remit a minimum amount as per labour welfare fund rules against every case of death or total incapacitation and DMRC would also contribute a matching amount as per DMRC labour welfare fund rules with objectives. This is in addition to compensation to be paid by the contractor in accordance with the workman's compensation Act as mentioned in general conditions of contract.

2.11 TENDER PRICES

- a) Unless explicitly stated otherwise in the tender documents, the contract shall be for the whole works, based on the Bill of Quantities and payment shall be as per accepted rates of contract.
- b) All duties, taxes, fees, octroi and other levies including Delhi VAT, payable by the contractor under the contract shall be included in the total contract price submitted by the tenderer.

The evaluation of the tender by Employer shall be made on the basis of quoted rates only.

Contract: DMRC/CPM1/PH-III/FOB at BADLI STATION/1 (Notice Inviting Tender): Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase-III DMRC Project.

- c) The contract price quoted by the tenderer is subject to adjustment during the performance of the contract in accordance with the provisions of the general conditions of contract (No Price Variation is applicable for this work).

2.12 The prices and measurements referred to will be based on actual measurements.

2.13 The tender price as mentioned in Clause of ITT shall include all the above listed items in the scope of the work (Clause 2.11 to 2.13).

Contract: DMRC/CPM1/PH-III/FOB at BADLI STATION/1 (Notice Inviting Tender): Design & Construction of Foot over Bridge at Badli Station Connecting Badli MRTS Station to Opposite Railway approach road by Crossing Over Nr. Railway Badli station on Jahangirpuri to Badli corridor of Delhi MRTS Phase-III DMRC Project.

SITE INFORMATION

3.1 WORK SITE

- 3.1.1** The project site is located in the National Capital Territory of Delhi (NCTD). The location of the work and the general site particulars can be inquired from Chief Project Manager/1.
- 3.1.2** The Steel Foot Over Bridge structural works connecting to Badli MRTS station on Jahangirpuri to Badli Corridor of Delhi MRTS Phase-III DMRC Project”.
- 3.1.2 The Contractor shall plan his works keeping in view restriction of approach and availability of space and time.

3.2 GENERAL CLIMATIC CONDITIONS

- 3.2.2 The area in which the work lies is mostly plain terrain falling within latitudes 28°-20' and 28°-45' North and longitudes 76°-56' and 77°-20' East.
- 3.2.3 The recorded highest and lowest temperatures in the past 10 years are 45.8 degree Celsius and 2.4 degree Celsius respectively.
- 3.2.4 Summer season is from April to June and winter season is from November to March.
- 3.2.5 Mean average annual rainfall in the area over a five-year period is of the order of 735 mm, a good portion of which is concentrated during July to mid September, when about 75% of the annual rainfall occurs. The heaviest rainfall recorded during 24-hour period is 191 mm.

3.2.6 SEISMIC ZONE

Delhi falls in Seismic Zone IV. Earthquake of maximum magnitude VIII on Modified Mercalli scale has been experienced in the past, in the region.