Construction of vehicle parking pavement for TikriKalan, Tikri Border, MIE & City Park Stations including drainage, approaches and other civil works of Mundka Bahdurgarh corridor of MRTS Phase III.

**CONTRACT: CC-119**

**TENDER DOCUMENTS**

**VOLUME -1**

**NOTICE INVITING TENDER**

**INSTRUCTION OF TENDERERS**

**FORM OF TENDER**

DELHI METRO RAIL CORPORATION LTD.  
5th Floor, A Wing, Metro Bhawan, Fire Brigade Lane, Barakhamba road, New Delhi - 110001
CONTRACT:CC-119
TENDER DOCUMENTS

VOLUME 1

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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 fulfill qualification criteria as stipulated in Clause 1.1.3 of NIT, for the work “Contract CC-119: Construction of vehicle parking pavement for TikriKalan, Tikri Border, MIE & City Park Stations including drainage, approaches and other civil works of Mundka-Bahdurgarh corridor of MRTS Phase-III.”

The brief scope of the work and site information is provided in ITT Clause A1 (Volume-1) & Technical Specifications (Volume-3)

1.1.2 Key details:

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<th>Approximate cost of work</th>
<th>Rs. 7.61 Crores</th>
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<tr>
<td>Tender Security amount</td>
<td>Amount of Tender Security: - 7.61 Lakhs</td>
</tr>
<tr>
<td></td>
<td>Validity of Tender Security: - 06.09.2017</td>
</tr>
<tr>
<td></td>
<td>Tender Security (in original) as per clause C18 of ITT shall be accepted only up to 1500 hrs on 10.01.2017 in the office of Executive Director/Contracts at the address mentioned hereinafter.</td>
</tr>
<tr>
<td>Completion period of the Work</td>
<td>08 months</td>
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<tr>
<td>Tender documents on sale</td>
<td>From 01.12.2016 to 10.01.2017(upto 15:00 Hrs)</td>
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<td>on e-tendering website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a></td>
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<td></td>
<td>Tender document can only be obtained online after registration of tenderer on the website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>. For further information in this regard bidders are advised to contact on 011-49424307, 011-49424365 or 011-23417910, 011-23415838</td>
</tr>
<tr>
<td>Cost of Tender documents</td>
<td>Rs. 21,000/- (Non-Refundable)</td>
</tr>
<tr>
<td></td>
<td>(Bank Draft / Bankers Cheque issued in favour of “Delhi Metro Rail Corporation Limited”, payable at “New Delhi”)</td>
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|                          | Cost of tender documents i.e, D.D. / Banker’s cheque, in original, shall be accepted only upto 1500 hours on 10.01.2017 in the office of Executive Director/Contracts at below mentioned address.
<table>
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<th>14.12.2016 at 11:00 Hrs</th>
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<tr>
<td>Last date of Seeking Clarification</td>
<td>15.12.2016 upto 1700 Hrs</td>
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<td>Last date of issuing addendum</td>
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| Date & time of Submission of Tender | Tender submission start date :27.12.2016 (0900 hrs)  
Tender submission end date :10.01.2017 (1500hrs) |
| Date & time of opening of Tender | 11.01.2017 at 15:00 Hrs. |
| Authority and place for submission of Tender Document cost & Tender Security, Pre-bid Meeting and seeking clarifications | Executive Director/Contracts,  
Delhi Metro Rail Corporation,  
6th floor, A-Wing, Metro Bhawan,  
Fire Brigade Lane, Barakhamba Road,  
New Delhi –110 001 |

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 organisations 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 supply, installation, testing
and commissioning of transmission line system.

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/Electrical/System/Signalling/Traction 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-19 A 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-
responsible 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 19A, 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-20 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-21 of Form of Tender.

viii. NON SUBSTANTIAL PARTNERS IN CASE OF 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.
1.1.3.2 Minimum Eligibility Criteria:

A. Work Experience: The tenderers will be qualified only if they have completed work(s) during last 7 years ending 31.12.2016 as given below:

(i) At least one “similar work” * of value INR 6.09 crores or more.

OR

(ii) Two “similar works” * each of value INR 3.81 crores or more.

OR

(iii) Three “similar works” * each of value INR 3.04 crores or more.

*The “Similar works” for this contract shall be “any civil work”.

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 also be submitted.

- Value of successfully completed portion of any ongoing work up to 31.12.2016 will also be considered for qualification of work experience criteria.

- For completed works, value of work done shall be updated to 31.12.2016 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 above work(s) (i.e. any civil work) comprise other works, then client’s certificate clearly indicating the amount of work done in respect of the “similar work” shall be furnished by the tenderer in support of work experience along-with their tender 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 (as per proforma given in Annexure-8 of ITT), 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. 1.63 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 \( \geq \frac{W \times M}{100} \)

and liquidity of member-2 \( \geq \frac{W \times N}{100} \)

(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. 2.28 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. 9.13 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 will 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:

\[
\text{Available Bid Capacity} = 2 \times A \times N - B
\]

Where,

- \(A\) = Maximum of the value of construction works executed in any one year during the last five financial years (updated to 31.12.2016 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 31.12.2016) for on-going construction works during period of 08 months w.e.f. 01.01.2017.

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 08 months w.e.f. 01.01.2017 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 % is not provided, 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:

**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 stipulated in the clauses 1.1.3.2 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 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 **Tender Documents**

**The Tender documents consist of :**

- **Volume-1: Notice Inviting Tender (NIT)**
  - Instructions to Tenderers (ITT) including Annexure
  - Form of Tender (FOT) including Appendices

- **Volume-2:** General Conditions of Contracts (GCC)
  - Special Conditions of Contract (SCC)

- **Volume-3:** Employers Requirement

- **Volume-4:** Tender Drawings

- **Volume-5:** Condition of Contract on Safety, Health & Environment (SHE)
  - Ver.-1.2

- **Volume-6:** Bill of Quantities (BOQ)

1.1.5 The Tenderers may obtain further information/ clarification, if any, in respect of these tender documents from the authority defined in the Key details above.

1.1.6 The intending tenderers must be registered on e-tendering portal [https://eproure.gov.in/eprocure/app](https://eproure.gov.in/eprocure/app). Those who are not registered on the e-tendering portal shall be required to get registered beforehand. If needed they can be imparted training on ‘online tendering process’. 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.

1.1.7 The authorized signatory of intending tenderer, 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. However, the tenderer shall upload their tender on [https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app) using class-II or class-III digital signature of the authorized signatory only.

1.1.8 Tender submissions shall be done online on [https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app) 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.

1.1.9 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.

1.1.10 Submission of Tenders shall be closed on e-tendering website of DMRC at the date & time of submission prescribed in NIT after which no tender shall be accepted. It shall be the responsibility of the bidder / tenderer to ensure that his tender is submitted online on e-tendering website https://eprocure.gov.in/eprocure/app before the deadline of submission. DMRC will not be responsible for non-receipt of tender documents due to any delay and/or loss etc.

1.1.11 Tenders shall be valid for a period of 180 days (both days inclusive i.e. the date of submission of tender 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.

1.1.12 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.

1.1.13 All the uploaded files in tender submission should be named properly and arrange systematically.

1.1.14 The bidders are advised to keep in touch with e-tendering portal https://eproure.gov.in/eprocure/app for updates.

Executive Director (Contracts)
Delhi Metro Rail Corporation Ltd.
Instructions for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.

2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.

5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.

6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of
documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

**SUBMISSION OF BIDS**

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

6) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8) Upon the successful and timely submission of bids (i.e., after clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

9) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

3) For any Technical queries related to Operation of the Central Public Procurement Portal Contact at:

Mobile Numbers: 91 7878007972, 91 7878007973, 91 7574889871, 91 7574889874, 91 8826246593

Tel: The 24 x 7 Toll Free Telephonic Help Desk Number 1800 3070 2232. Other Tel: 0120-4200462, 0120-4001002.

E-Mail: cppp-nic[at]nic[dot]in
SCOPE OF WORK

GENERAL

The scope of work consists of construction of vehicle parking pavement for TikriKalan, Tikri Border, MIE& City Park stations including drainage, approaches and other civil works (Mundka-Bahadurgarh corridor of MRTS Phase-III)

BRIEF SCOPE

- Works to be undertaken in this contract consist of preparation of ground including earth work and filling, cement concrete pavement for entire parking area, construction of boundary wall with brick work ,RCC columns & tie beams, construction of drainage trenches with rain water harvesting pits, construction of approach road for Entry/ Exit, painting and marking lanes & horticulture work etc as per BOQ, specifications and drawings, etc.
- Scope of work includes cost of all machineries, manpower, equipment and other necessary arrangement required for construction of all permanent and temporary works as per BOQ, General and Technical Specifications, drawings and or as directed by Engineer.
- The scope of work shall inter alia includes the following:
  a) Site Clearance, dismantling of obstructions etc., before commencement of works, all as required or as directed.
  b) True and proper demarcation, layout of work, provision of all instruments and appliances in connection with all above mentioned work as specified or as directed by Engineer-in-Charge or the representative of DMRC.
  c) Filling of earth on prepared beds in layers and compaction on OMC to obtain 95% of maximum dry density as per Modified Proctor Density in true line and level as directed by Engineer-in-charge.
  d) Day to day cleaning of worksite throughout the execution period.
  e) All the drawings including structural drawings will be supplied by DMRC.
  f) All aspects of quality assurance, including testing of various components of the work, as specified or as directed.
  g) Clearing site after construction and handing over of all the works, as specified and directed.
  h) Period of completion is Eight months from date of issue of “Letter of Acceptance”
  i) Defect period is 52 weeks from the date of completion of work Liability.
  j) Survey work such as demarcation of work at site and setting out of work at site is included in the overall scope of work. The coordinates of the critical points shall be intimated to the contractor who shall make his own arrangements to transfer these coordinates to the ground with the help of total station and get it checked by the Engineer. Nothing extra shall be paid for the same.
  k) Any other item of work as may be required to be carried out for completing the job in all respects in accordance with the provisions of the contract and /or to ensure the structural stability and safety of the work during and after construction.
Construction of road includes signages & road safety marking as per desired specifications.

2.1.1 RAILING WORK.

a) The steel tube shall be confirming to IS 1161 and IS 226, welding shall be done as per IS 816.

b) Tubes shall be clean finished and free from scale. They shall be free from cracks, surface flaws, laminations and other defects. The ends shall be cut clean and square with axis of tube, unless otherwise specified.

c) The ends of all the tubes should be provided with a cap or base unless specified.

d) Fabrication work is to be done in an approved workshop.

e) Clearing of site and handing over of all the works, as specified or as directed.

f) Maintenance of the completed work during the maintenance period as directed.

2.1.2 COMPONENTS OF WORK

The work content in the said contract consists of the following components.

Preliminary Works

This includes the following:

a) Stripping of entire surface and grading the area to be filled up including filling the pockets, removal of slush, bad soil and any obstruction including pumping/baling out water, loading, carriage and disposal of stripped unsuitable material from sites as directed by the Engineer. The original ground surface after stripping shall be compacted by mechanical equipments.

b) Setting out of alignment by establishing masonry pillars, reference points etc. as per drawings and/or as directed by Engineer.

c) Construction of reference pillars from Ground level to proposed finished formation level at locations as directed by the Engineer including establishment of Bench Marks.

d) Dismantling existing service road which is at higher level than main carriage way.

e) Establishing of material testing laboratory at site as per requirement or as specified by the Engineer.

2.1.4 Material

2.1.4.1 Quality

All materials used in the works shall be of the best quality of their respective kinds as specified herein, obtained from sources and suppliers approved by the Engineer and shall comply strictly with the tests prescribed in the Technical Specifications/Codes of Practice.

Sampling and Testing

In addition to test certificates, samples of all materials proposed to be employed in permanent works shall be submitted to the Engineer when called for. In such cases, materials will not be brought to the site without prior approval of the Engineer.

Samples provided to the Engineer are to be labelled in boxes suitable for storage. Materials or workmanship, not corresponding in character and quality with approved samples, will be rejected by the Engineer.
Samples required for approval and testing must be supplied at least 45 days in advance to allow for testing & approval. Delay to the works arising from the late submission of samples will not be acceptable as a reason for delay in completion of the works.

The contractor will bear all expenses for sampling and testing, whether at the manufacturer’s premises at source, at site or at any testing laboratory or institution as directed by the Engineer. In case of field tests, 10% of the samples shall be tested in approved outside laboratory as directed by the engineer. No payment shall be made on this account.

2.1.4.2 Rejection

Any materials that have been found not to conform to the specifications will be rejected forthwith and shall be removed from the site by the contractor at his own cost.

2.1.4.3 Workmanship

All works shall be true to level, plumb and square and the corner, edges and arises in all cases shall be unbroken and neat and shall be as per provisions in the relevant Technical Specifications / Standard Codes of Practices. Contractor shall also submit Quality Assurance Programme and Methods Statements within 30 days of acceptance of tender for approval of the Engineer. The approved Quality Assurance Plan and Method Statements will form the basis for quality control and checklist for strict adherence during the work.

Any work not as per satisfaction of the Engineer or his representative will be rejected and the same shall be rectified, or removed and replaced with work of required standard of workmanship at no extra cost.

2.2 Interface Works

In addition the Contractor shall be required to carry out all the works as per interfacing requirements of CC-43 contractor.

2.3 Structures

The construction of structures will have to be planned in such a manner that they do not obstruct or interfere with the existing roads/railways and other utilities. Where work is required to be carried out at locations adjacent to such roads/railways, utilities, structures, monuments 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 nothing extra will be payable on this account.

2.4.1 REFERENCE TO THE STANDARD CODES OF PRACTICE

2.4.1.1 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, IRSC, MORTH & IRC Codes and CPWD specifications as applicable.

2.4.1.2 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.

2.4.1.3 In case of discrepancy among Standard codes of practice and provisions in sub clauses in this NIT, the order of precedence will be as below:

i) Provision in NIT

ii) CPWD specifications

iii) Standard Codes of Practice.
2.4.2 DIMENSIONS

2.4.2.1 As regards errors, omissions and discrepancies in Specifications and Drawings, relevant clause of Special Conditions of Contract will apply.

2.4.2.2 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.

2.5 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.

2.6 CONSTRUCTION DEPOT

For casting yard and other activities land of suitable size of 1500 sq. m within the land acquired by the DMRC at station locations. The land shall be made good for such offsite activities as needed by the Contractor at no extra cost to the employer. The land shall be cleared from debris all structure made by contractor including, RCC footing and raft etc. before handing over the back to the Employer. Final bill will be released to the contractor after all structures from the construction depot are removed. The contractor shall barricade this area as per the instructions of the Engineer and nothing extra shall be paid.

2.7 UTILITIES

Utility identification at foundation locations will be done by the contractor and in case utility(s) is encountered or obligatory requirement is to be met out; the contractor shall modify the span configuration/foundation design accordingly in consultation with engineer as provided in the tender drawing to save the utility(ies) or to meet obligatory requirements within the accepted price. Shifting of utility(ies) would be done only in exceptional cases where in the opinion of the Engineer no other option is available. Contractor shall be paid for diverting the utilities under relevant Schedule items. No payment shall however be made for supporting the utilities during course of work.

The utilities are to be diverted with proper liaison and approval of the utility owning agencies. The utilities which are not be diverted but require supporting, proper supporting is be done so that they are not damaged along their branches. Precautions to be taken while handling the utilities are mentioned as under;
(i) Utilities must not be damaged at any cost. If due to some or the other reason, mishappening occurs, it should be rectified immediately by the Contractor at his own cost under intimation of DMRC.

(ii) Till rectification of the damaged trunk sewers, the Contractor shall arrange substitute arrangement for sewer pumping and its disposal as per directions of Engineer /concerned civic agencies. The similar arrangement is done for other utilities.

(iii) The manholes of Trunk/Sewers should not be covered under the foundation as these may create hindrances to the annual de-silting/cleaning of sewer lines.

(iv) Sufficient distance of foundation from outer edge of Trunk / Sewers is kept in view of further maintenance/Safety of Trunk /Sewers.

(v) The covers of manholes be saved from heavy machinery movement to avoid any accident/Slippage of malba in manholes etc into the Trunk /Sewers which may cause blockage of lines. In case of damage of manhole cover & frame the same shall be replaced immediately by the Contractor at his own cost.

(vi) Manholes of the trunk sewer should be kept freely accessible for cleaning and removal of blockages and malba should not be dumped over these manholes.

(vii) Branch sewer connections which are connected with the trunk sewers should also be taken care of. If the same are damaged, the same should be restored immediately on priority.

(viii) NOC & Approval of schemes of Diversion of Utilities from the concerned regulatory / statutory / Local Authority is the responsibility of the Contractor and nothing extra is payable on this account.

These are only indicative for one of the utility. Similarly, necessary precautions which are specified from time to time by the utility owning agencies shall also be followed. The Central verge/footpath furnishings which are to be dismantled be handed over to the concerned department in their stores at his own cost.

Contractor should make his own survey for identification of underground/above ground utilities.

2.8 INSPECTION

DMRC may appoint an independent agency to ensure the quality checking of design, supply, fabrication, erection and construction of all works under scope of work. 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.

2.9 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 08months.

2.10 TENDER PRICE

The tender price as mentioned in Clause C 2.5 of ITT shall include all the above listed items in the scope of the work (Clause 2.1 to 2.9).
SITE INFORMATION

3.1 WORK SITE

3.1.1 The project site is located in Mundka- Bahadurgarh corridor of MRTS Phase-III. The location of the work and the general site particulars are shown in the General Arrangements Drawings enclosed in the tender documents.

3.1.2 The proposed Work falls on Mundka – Bahadurgarh corridor of Delhi Metro Rail Project.

3.1.3 The Contractor shall plan his works keeping in view restriction of approach and availability of space and time.

3.2 General Climatic Conditions

3.2.1 The recorded highest and lowest temperatures in the past 10 years are 47 degree Celsius and 2.4 degree Celsius respectively.

3.2.2 Summer season is from April to June and winter season is from November to March.

3.2.3 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.

3.3 Seismic Zone

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