PREQUALIFICATION DOCUMENTS

For

Design, Manufacture, Supply, Installation, Testing and commissioning of Signalizing & Train Control, Platform Screen Doors and Telecommunication Systems

MM3-CBS-STPT

Employer: Mumbai Metro Rail Corporation
Country: Republic of India
Project: MUMBAI METRO LINE 3
Loan No.: [ID-P 233]
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A. General

1. Scope of Application

1.1 In connection with the Invitation for Prequalification specified in Section II, Prequalification Data Sheet (PDS), the Employer, as specified in the PDS, issues these Prequalification Documents (“Prequalification Documents”) for prequalification to bid for the Works described in Section VI, Scope of Works. In case the Works are to be bid as individual contracts (i.e. the slice and package procedure), these are specified in the PDS.

1.2 Throughout these Prequalification Documents:

(a) the term “in writing” means communicated in written form and delivered against receipt;

(b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and

(c) “day” means calendar day.

2. Source of Funds

2.1 The Borrower specified in the PDS has received or has applied for a Japanese ODA Loan from Japan International Cooperation Agency (hereinafter referred to as “JICA”), with the number, in the amount, and on the signed date of the Loan Agreement specified in the PDS, towards the cost of the project named in the PDS. The Borrower intends to apply a portion of the proceeds of the loan to payments under the contract resulting from the bidding for which this prequalification is conducted.

2.2 Disbursement of a Japanese ODA Loan by JICA will be subject, in all respects, to the terms and conditions of the Loan Agreement, including the disbursement procedures and the applicable Guidelines for Procurement under Japanese ODA Loans specified in the PDS. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to loan proceeds.

2.3 The above Loan Agreement will cover only part of the project cost. As for the remaining portion, the Borrower will take appropriate measures for finance.

3. Corrupt and Fraudulent Practices

3.1 In this ITA 3.1, “Bidder” and “Contractors” are used as synonyms of “Applicants.”

It is JICA’s policy to require that Bidders and Contractors, as well as Borrowers, under contracts funded with Japanese ODA Loans and other Japanese ODA, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, JICA:

(a) will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(b) will recognise a Bidder or Contractor as ineligible, for a period determined by JICA, to be awarded a contract funded with Japanese ODA Loans if it at any time determines that the Bidder or the Contractor has engaged in corrupt or fraudulent practices in competing for, or in executing another contract funded with Japanese ODA Loans or other Japanese ODA; and

(c) Will recognise a Contractor as ineligible to be awarded a contract funded with Japanese ODA Loans if the Contractor or subcontractor, who has a
Section I. Instructions to Applicants

4. Eligible Applicants

4.1 For the purpose of applying the eligibility criteria listed in this ITA 4, references to the “Applicant” include all entities, involved or intended to be involved with the proposed Works (including all partners and any of their affiliates that directly or indirectly control, or are controlled by or are under common control with the firm), specialist subcontractors, consultants, manufacturers or suppliers (as mentioned in Form ELI-1.2 Applicant’s Party Information Form), and the personnel of each, for any part of the contract including related services.

4.2 An Applicant may be a firm that is a single entity or any combination of such entities in the form of joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a JV, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV shall nominate an authorised representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the prequalification process, Bidding (in the event the JV submits a Bid) and during contract execution (in the event the JV is awarded the Contract).
4.3 An Applicant and all members constituting the Applicant shall be from any of the eligible source countries as indicated in Section V, Eligible Source Countries of Japanese ODA Loans.

4.4 An Applicant shall not have a conflict of interest. An Applicant shall not be employed under any of the circumstances set forth below, where it is determined to have a conflict of interest throughout the Bidding/selection process and/or the execution of the contract unless the conflict has been resolved in a manner acceptable to JICA.

(a) A firm shall be disqualified from providing goods or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of a project that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm. This provision does not apply to the various firms (consultants, contractors, or suppliers) only due to the reason that those firms together are performing the Contractor’s obligations under a turnkey or design and build contract.

(b) A firm that has a close business relationship with the Borrower’s professional personnel, who are directly or indirectly involved in any part of: (i) the preparation of the Prequalification and Bid documents for the contract, (ii) the Prequalification and Bid evaluation, or (iii) the supervision of such contract, shall be disqualified.

4.5 A firm and any of its affiliates (that directly or indirectly control, are controlled by or are under common control with that firm) may submit their applications for prequalification either individually, as joint venture or as a subcontractor among them for the same contract. However, if prequalified, based on the “One Bid Per Bidder” principle, which is to ensure fair competition, only one prequalified applicant will be allowed to Bid for the same contract. All Bids submitted in violation of this procedure will be rejected. A firm (including its affiliate), if acting in the capacity of a subcontractor in one Bid, may participate in other Bids, only in that capacity.

4.6 A firm having any other form of conflict of interest other than ITA 4.4 and ITA 4.5 shall be disqualified.

4.7 An Applicant that has been determined to be ineligible by JICA in accordance with ITA 3, shall not be eligible to be awarded a contract.

4.8 Applicants shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

B. Contents of the Prequalification Documents

5. Sections of Prequalification Documents

5.1 These Prequalification Documents consist of Parts 1 and 2 which include all the Sections specified below, and which should be read in conjunction with any addendum (“Addendum”) issued in accordance with ITA 7.

PART 1 Prequalification Procedures

a) Section I. Instructions to Applicants (ITA)

b) Section II. Prequalification Data Sheet (PDS)

c) Section III. Qualification Criteria and Requirements
Section I. Instructions to Applicants

d) Section IV. Application Forms

e) Section V. List of Eligible Countries of Japanese ODA Loans

PART 2 Works Requirements

f) Section VI. Scope of Works

5.2 The Invitation for Prequalification issued by the Employer is not part of the Prequalification Documents.

5.3 Unless obtained directly from the Employer, the Employer accepts no responsibility for the completeness of the document, responses to requests for clarification, the minutes of the pre-Application meeting (if any), or Addendum to the Prequalification Documents in accordance with ITA 7. In case of any discrepancies, documents issued directly by the Employer shall prevail.

5.4 The Applicant is expected to examine all instructions, forms, and terms in the Prequalification Documents and to furnish with its Application all information or documentation as is required by the Prequalification Documents.

5.5 General information on the climate, hydrology, topography, access to site, transportation and communications facilities, medical facilities, project layout, expected construction period, and other services and facilities to be provided by the Employer is furnished in Section VI, Scope of Works.

6. Clarification of Prequalification Documents

6.1 A prospective Applicant requiring any clarification of the Prequalification Documents shall contact the Employer in writing at the Employer’s address specified in the PDS. The Employer will respond in writing to any request for clarification provided that such request is received no later than fourteen (14) days prior to the deadline for submission of Applications. The Employer shall forward copies of its response to all Applicants who have obtained the Prequalification Documents directly from the Employer including a description of the inquiry but without identifying its source. If so specified in the PDS, the Employer shall also promptly publish its response at the web page identified in the PDS. Should the Employer deem it necessary to amend the Prequalification Documents as a result of a clarification, it shall do so following the procedure under ITA 7 and in accordance with the provisions of ITA 16.2.

6.2 If so indicated in the PDS, the prospective Applicant’s designated representative is invited at the Applicant’s cost to attend a pre-Application meeting at the place, date and time mentioned in the PDS. During this pre-Application meeting, prospective Applicants may request clarification of the project requirement, the criteria for qualifications or any other aspects of the Prequalification Documents.

6.3 Minutes of the pre-Application meeting, if applicable, including the text of the questions asked by Applicants, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be transmitted promptly to all prospective Applicants who have obtained the Prequalification Documents. Any modification to the Prequalification Documents that may become necessary as a result of the pre-Application meeting shall be made by the Employer exclusively through the use of an Addendum pursuant to ITA 7. Non-attendance at the pre-Application meeting will not be a cause for disqualification of an Applicant.
7. Amendment of Prequalification Documents

7.1 At any time prior to the deadline for submission of Applications, the Employer may amend the Prequalification Documents by issuing addenda.

7.2 Any Addendum issued shall be part of the Prequalification Documents and shall be communicated in writing to all who have obtained the Prequalification Documents from the Employer. If so specified in the PDS, the Employer shall promptly publish the Addendum at the Employer’s web page identified in the PDS.

7.3 To give prospective Applicants reasonable time to take an Addendum into account in preparing their Applications, the Employer may, at its discretion, extend the deadline for the submission of Applications in accordance with ITA 16.2.

C. Preparation of Applications

8. Cost of Applications

8.1 The Applicant shall bear all costs associated with the preparation and submission of its Application. The Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the prequalification process.

9. Language of Application

9.1 The Application as well as all correspondence and documents relating to the prequalification exchanged by the Applicant and the Employer, shall be written in the language specified in the PDS. Supporting documents and printed literature that are part of the Application may be in another language, provided they are accompanied by an accurate translation of the relevant passages in the language specified in the PDS, in which case, for purposes of interpretation of the Application, the translation shall govern.

10. Documents Comprising the Application

10.1 The application shall comprise the following:

(a) Application Submission Form, in accordance with ITA 11.1;

(b) documentary evidence establishing the Applicant’s eligibility to prequalify, in accordance with ITA 12.1;

(c) documentary evidence establishing the Applicant’s qualifications, in accordance with ITA 13;

(d) Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans (Form-ACK), which shall be signed and dated by the Applicant’s authorised representative; and

(e) any other document required as specified in the PDS.

11. Application Submission Form

11.1 The Applicant shall complete an Application Submission Form as provided in Section IV, Application Forms. This Form must be completed without any alteration to its format.

12. Documents Establishing the Eligibility of the Applicant

12.1 To establish its eligibility in accordance with ITA 4, the Applicant shall complete the eligibility declarations in the Application Submission Form and Forms ELI 1.1 and 1.2, included in Section IV, Application Forms.

13. Documents Establishing the Qualifications of the Applicant

13.1 To establish its qualifications to perform the contract(s) in accordance with Section III, Qualification Criteria and Requirements, the Applicant shall provide the information requested in the corresponding forms included in Section IV, Application Forms.

13.2 Wherever an Application Form requires an Applicant to state a monetary amount, the Applicant should indicate the USD equivalent using the rate of
exchange determined as follows:

For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year.

Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified in the PDS or, in case such rates are not available in the source identified above, any other publicly available source acceptable to the Employer. Any error in determining the exchange rates in the Application may be corrected by the Employer.

14. Signing of the Application and Number of Copies

14.1 The Applicant shall prepare one original of the documents comprising the Application as described in ITA 10 and clearly mark it “ORIGINAL”. The original of the Application shall be typed or written in indelible ink and shall be signed by a person duly authorised to sign on behalf of the Applicant. In case the Applicant is a JV, the Application shall be signed by an authorised representative of the JV on behalf of the JV and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorised signatories.

14.2 The Applicant shall submit copies of the signed original Application, in the number specified in the PDS, and clearly mark them “COPY”. In the event of any discrepancy between the original and the copies, the original shall prevail.
Section I. Instructions to Applicants

D. Submission of Applications

15. Sealing and Identification of Applications

15.1 The Applicant shall enclose the original and the copies of the Application in a sealed envelope that shall:

(a) bear the name and address of the Applicant;
(b) be addressed to the Employer, in accordance with ITA 16.1; and
(c) bear the specific identification of this prequalification process, specified in PDS 1.1.

15.2 The Employer will accept no responsibility for not processing any envelope that was not identified as required in ITA 15.1 above.

16. Deadline for Submission of Applications

16.1 Applicants may either submit their Applications by mail or by hand. Applications shall be received by the Employer at the address and no later than the deadline specified in the PDS.

16.2 The Employer may, at its discretion, extend the deadline for the submission of Applications by amending the Prequalification Documents in accordance with ITA 7, in which case all rights and obligations of the Employer and the Applicants subject to the previous deadline shall thereafter be subject to the deadline as extended.

17. Late Applications

17.1 The Employer reserves the right to accept or reject late Applications.

18. Opening of Applications

18.1 The Employer shall open all Applications at the date, time and place specified in the PDS.

18.2 The Employer shall prepare a record of the opening of Applications to include, as a minimum, the name of the Applicants. A copy of the record shall be distributed to all Applicants.

E. Procedures for Evaluation of Applications

19. Confidentiality

19.1 Information relating to the Applications, their evaluation and result shall not be disclosed to Applicants or any other persons not officially concerned with the prequalification process until the notification of prequalification results is made to all Applicants in accordance with ITA 26.

19.2 From the deadline for submission of Applications to the time of notification of the results of the prequalification in accordance with ITA 26, any Applicant that wishes to contact the Employer on any matter related to the prequalification process (except as specified in ITA 19.1 above), may do so only in writing.

20. Clarification of Applications

20.1 To assist in the evaluation of Applications, the Employer may, at its discretion, ask an Applicant for a clarification (including missing documents) of its Application, to be submitted within a stated reasonable period of time. Any request for clarification from the Employer and all clarifications from the Applicant shall be in writing.

20.2 If an Applicant does not provide clarifications of the information requested by the date and time set in the Employer’s request for clarification, its Application shall be evaluated based on the information and documents available at the time of evaluation of the Application.

21. Responsiveness of Applications

21.1 The Employer may reject any Application which is not responsive to the requirements of the Prequalification Documents. In case the information...
Section I. Instructions to Applicants

22. Subcontractors

22.1 Applicants planning to subcontract any of the key activities indicated in Section III, Qualification Criteria and Requirements, shall specify the activity (ies) or parts of the Works to be subcontracted in the Application Submission Form. Applicants shall clearly identify the proposed specialist subcontractor(s) in Forms ELI-1.2 and EXP-4.2(b) in Section IV, Application Forms. Such proposed specialist subcontractor(s) shall meet the corresponding qualification requirements specified in Section III, Qualification Criteria and Requirements.

22.2 At this time, the Employer does not intend to execute certain specific parts of the Works by subcontractors selected in advance by the Employer (Nominated Subcontractors) unless otherwise stated in the PDS.

23. Evaluation of Applications

23.1 The Employer shall use the factors, methods, criteria, and requirements defined in Section III, Qualification Criteria and Requirements to evaluate the qualifications of the Applicants, and no other methods, criteria, or requirements shall be used. The Employer reserves the right to waive minor deviations in the qualification criteria if they do not materially affect the technical capability and financial resources of an Applicant to perform the contract.

23.2 Only the qualifications of subcontractors that have been identified in the Application may be considered in the evaluation of an Applicant. However, the general experience and financial resources of subcontractors may not be added to those of the Applicant for purposes of prequalification of the Applicant.

23.3 Unless otherwise specified in the PDS, this prequalification shall be for a single contract.

23.4 Only the qualifications of the Applicant shall be considered. In particular, the qualifications of a parent or other affiliated company that is not party to the Applicant under a JV in accordance with ITA 4.2 shall not be considered.

23.5 In case of multiple contracts, Applicants should indicate in their Applications the individual contract or combination of contracts in which they are interested. The Employer shall prequalify each Applicant for the maximum combination of contracts for which the Applicant has thereby indicated its interest and for which the Applicant meets the aggregate requirements or any other reasonable requirements set forth by the Employer. The Qualification Criteria and Requirements are mentioned in Section III.

F. Evaluation of Applications and Prequalification of Applicants

24. Employer’s Right to Accept or Reject Applications

24.1 The Employer reserves the right to accept or reject any Application, and to annul the prequalification process and reject all Applications at any time, without thereby incurring any liability to Applicants.

25. Prequalification of Applicants

25.1 All Applicants who’s Applications substantially meet or exceed the specified qualification requirements will be prequalified by the Employer.

26. Notification of

26.1 The Employer shall notify all Applicants in writing of the names of those
Prequalification

Applicants who have been prequalified. In addition, those Applicants who have been disqualified will be informed separately.

26.2 Applicants that have not been prequalified may write to the Employer to request, in writing, or in a meeting, the grounds on which they were disqualified.

27. Invitation for Bids

27.1 Promptly after the notification of the results of the prequalification, the Employer shall invite Bids from all the Applicants that have been prequalified.

27.2 Bidders may be required to provide a Bid Security acceptable to the Employer in the form and an amount to be specified in the Bid documents, and the successful Bidder shall be required to provide a Performance Security to be specified in the Bid documents.

27.3 The Bid documents will be prepared in accordance with the applicable Standard Bidding Documents of JICA specified in the PDS.

28. Changes in Qualifications of Applicants

28.1 Any change in the structure or formation of an Applicant after being prequalified in accordance with ITA 25 and invited to Bid (including, in the case of a JV, any change in the structure or formation of any member thereto) shall be subject to a written approval of the Employer prior to the deadline for submission of Bids. Such approval shall be denied, if: (i) such change has not taken place by the free choice of the firms involved; (ii) as a consequence of the change, the Applicant no longer substantially meets the qualification criteria set forth in Section III, Qualification Criteria and Requirements; or (iii) in the opinion of the Employer, the change may result in a substantial reduction in competition.

Any such changes should be submitted to the Employer not later than fourteen (14) days after the date of the Invitation for Bids.
Section II. Prequalification Data Sheet
### Prequalification Data Sheet

#### A. General

<table>
<thead>
<tr>
<th>ITA 1.1</th>
<th>The number of the Invitation for Prequalification is MM3-CBS-STPT (Signalling, Train Control, Platform Screen Door and Telecommunications).</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITA 1.1</td>
<td>The Employer is Mumbai Metro Rail Corporation Limited.</td>
</tr>
<tr>
<td>ITA 1.1</td>
<td>The scope of the work includes design, manufacture, supply, installation, testing, commissioning of Systems for Signalling, Train Control, Platform Screen Doors and Telecommunication and handover (MM3-CBS-STPT).</td>
</tr>
<tr>
<td><strong>ITA 1.2</strong></td>
<td>Add the following sentence at the end of ITA 1.2: “JV” means Consortium or Joint Venture.</td>
</tr>
<tr>
<td>ITA 2.1</td>
<td>The name of the Borrower is Government of India.</td>
</tr>
<tr>
<td>ITA 2.1</td>
<td>The number of the Loan Agreement is ID-P 233. The amount of a Japanese ODA Loan is Seventy One (71) billion Japanese Yen. The signed date of the Loan Agreement is 17th September 2013.</td>
</tr>
<tr>
<td>ITA 2.1</td>
<td>The name of the Project is Mumbai Metro Line 3 (Colaba-Bandra-SEEPZ) corridor</td>
</tr>
<tr>
<td>ITA 2.2</td>
<td>The applicable Guidelines for Procurement under Japanese ODA Loans are those published in April 2012.</td>
</tr>
<tr>
<td><strong>ITA 3.1 (c)</strong></td>
<td>A list of debarred firms and individuals is available at the World Bank’s website: <a href="http://www.worldbank.org/debarr">www.worldbank.org/debarr</a></td>
</tr>
<tr>
<td>ITA 4.1</td>
<td>An applicant should be either a) An Indian Company incorporated under Companies Act, 1956 (which has been replaced by Companies Act, 2013) OR b) A Foreign Company registered under relevant legislation in its country of origin and having permission to carry out business in India.</td>
</tr>
</tbody>
</table>

#### B. Contents of the Prequalification Documents

| ITA 5.1 | Eligible applicants may obtain the pre-qualification documents after 17-06-2016 by downloading from the website or address below: The Managing Director, MMRC R13, NaMTTRI building E-Block, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051, India, Website: [http://mmrcl.com](http://mmrcl.com) The documents will be available for a non-refundable fee of INR 2,500/- or US$38 (Inclusive of MH VAT) to be paid in the form of Demand Draft/Bankers Cheque from any Nationalised / Scheduled Bank in favour of “Mumbai Metro Rail Corporation Limited” payable at “Mumbai” at the office address mentioned above. |
### ITA 6.1

For *clarification purposes* only, the Employer's address is:

Attention: Mr. Umashankar. R (Sr. DGM Signalling) / Mr. Ashfaq Sayed (Sr. DGM Telecom)

R13, NaMTTRI building E-Block,
Bandra Kurla Complex, Bandra (East),
Mumbai – 400 051, India,

Email: umashankar.rukmangada@mmrcl.com;
ashfaq.sayed@mmrcl.com

Telephone: +91 22 26597442/+91 22 26597441
Facsimile number: +91 22 26592005

The Employer will respond in writing to any request for clarification provided that such request is received no later than twenty one (21) days prior to the deadline for submission of Applications.

Responses to any request for clarification, if any, will not be published on the Employer’s web page.

### ITA 6.2

A pre-Application meeting will take place at the following date, time and place:

**Date:** 11-07-2016
**Time:** 3:00 p.m.

Place: R13, NaMTTRI building E-Block, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051, India.

### ITA 7.2

The Employer will publish the Addendum, if any, at the Employer’s web page www.mmrcl.com

### C. Preparation of Applications

**ITA 9.1**
The language of the Application as well as of all correspondence is English.

**ITA 10.1 (e)**
The Applicant shall submit with its Application, the following additional documents: NONE

**ITA 13.2**

*Replace the second paragraph of ITA 13.2*

“For Construction turnover or financial data required for each year – Exchange rate prevailing on the last day of the respective calendar year.”

*With*

“For Construction turnover or financial data required for each year – Exchange rate prevailing on the last day of the respective calendar year for the countries where the financial year ending on 31st December and for the countries where the financial year ending on 31st March, the Exchange rate prevailing on the 31st December of the preceding year.”

The source for determining exchange rate is **Reserve Bank of India** reference rate (foreign currency). If the source of the exchange rate for the Bidder’s proposed currency cannot be found in the Reserve Bank of India reference rate (foreign currency), then with the Employer’s concurrence, the rate in the web site [www.xe.com](http://www.xe.com) may be used.
### ITA 14.1
Add the following sentence at the end of ITA 14.1:
All documents must be spiral/hard bound. No loose papers will be accepted.

### ITA 14.2
In addition to the original, the number of copies to be submitted with the Application is two sets of copies and one electronic version (PDF on CD).

The Application should be clearly marked “Application to Pre-qualify for Mumbai Metro Line 3 (Colaba-Bandra-SEEPZ) - Design, Manufacture, Supply, Installation, Testing & Commissioning of Systems for Signalling, Train Control, Platform Screen Doors and Telecommunication "MM3-CBS-STPT"

### D. Submission of Applications

<table>
<thead>
<tr>
<th>ITA 16.1</th>
<th>Submission of applications for pre-qualification must be received in sealed envelopes, either delivered by hand, courier or by registered mail.</th>
</tr>
</thead>
</table>
| **The deadline for Application submission is:** | **Date:** 12-08-2016  
**Time:** 3:00 p.m. |
| **For Application submission purposes only, the Employer’s address is:** | **Attention:** The Managing Director, MMRC  
R13 NaMTTRI building E-Block, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051, India  
Email: umashankar.rukmangada@mmrcl.com; ashfaq.sayed@mmrcl.com  
Telephone: +91 22 26597442/+91 22 26597441  
Facsimile number: +91 22 26592005 |

### E. Procedures for Evaluation of Applications

| ITA 22.2 | At this time the Employer does not intend to execute certain specific parts of the Works by subcontractors selected in advance (Nominated Subcontractors). |

### F. Evaluation of Applications and Prequalification of Applicants

<table>
<thead>
<tr>
<th>ITA 23.3</th>
<th>As stipulated in ITA 1.1, this prequalification exercise shall be for a single contract.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITA 26.1</td>
<td>Applicants will be advised by the Employer in writing by fax or telex, within 60 days of the date for submission of applications, of the result of their application, and of the names of the pre-qualified applicants, without being assigned any reason for the Employer’s decision.</td>
</tr>
<tr>
<td>ITA 27.3</td>
<td>The Bid documents will be prepared in accordance with Standard Bidding Documents Under Japanese ODA Loans (Plant) published by JICA.</td>
</tr>
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<table>
<thead>
<tr>
<th>No.</th>
<th>Factor</th>
<th>Requirement</th>
<th>Single Entity</th>
<th>Compliance Requirements</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Joint Venture (existing or intended)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All Parties Combined</td>
<td>Each Member</td>
</tr>
<tr>
<td>1.</td>
<td>Eligibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Nationality</td>
<td>Nationality in accordance with ITA Sub-Clause 4.3</td>
<td>Must meet requirement</td>
<td>N/A</td>
<td>Must meet requirement</td>
</tr>
<tr>
<td>1.2</td>
<td>Conflict of Interest</td>
<td>No conflicts of interest in ITA Sub-Clauses 4.4, 4.5 and 4.6</td>
<td>Must meet requirement</td>
<td>N/A</td>
<td>Must meet requirement</td>
</tr>
<tr>
<td>1.3</td>
<td>JICA Ineligibility</td>
<td>Not having been declared ineligible by JICA, as described in ITA Sub-Clause 4.7</td>
<td>Must meet requirement</td>
<td>N/A</td>
<td>Must meet requirement</td>
</tr>
<tr>
<td>2.</td>
<td>Historical Contract Non-Performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>History of Non-Performing Contracts</td>
<td>Non-performance of a contract did not occur as a result of contractor’s default since 1st January 2014.</td>
<td>Must meet requirement (i)</td>
<td>N/A</td>
<td>Must meet requirement (ii)</td>
</tr>
<tr>
<td>2.2</td>
<td>Pending Litigation</td>
<td>All pending litigation shall in total not represent more than 50% of the Applicant’s net worth and shall be treated as resolved against the Applicant.</td>
<td>Must meet requirement (ii)</td>
<td>N/A</td>
<td>Must meet requirement (ii)</td>
</tr>
</tbody>
</table>
### Eligibility and Qualification Criteria

<table>
<thead>
<tr>
<th>No.</th>
<th>Factor</th>
<th>Requirement</th>
<th>Single Entity</th>
<th>Joint Venture (existing or intended)</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All Parties Combined</td>
<td>Each Member</td>
</tr>
<tr>
<td>2.3</td>
<td>Litigation History</td>
<td>No consistent history of court / arbitral award decisions (ii) against the Applicant (iii) since 1st January 2011</td>
<td>Must meet requirement (ii)</td>
<td>N/A</td>
<td>Must meet requirement (ii)</td>
</tr>
</tbody>
</table>

**Notes for the Applicant**

(i) Non-performance, as decided by the Employer, shall include all contracts

   (a) where non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and

   (b) that were so challenged but fully settled against the contractor.

   Non-performance shall not include contracts where Employer’s decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Applicant have been exhausted.

(ii) This requirement also applies to contracts executed by the Applicant as a JV member.

(iii) The Applicant shall provide accurate information on the related Application Form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five (5) years. A consistent history of awards against the Applicant or any member of a joint venture may result in failure of the Application.

(iv) The occurrence of one (1) or two (2) adverse cases over five (5) years for a Contractor handling, on average, ten (10) similar contracts simultaneously, should not be a cause for rejection.
### Section III. Qualification Criteria and Requirements

<table>
<thead>
<tr>
<th>No.</th>
<th>Factor</th>
<th>Requirement</th>
<th>Single Entity</th>
<th>Joint Venture (existing or intended)</th>
<th>Submission Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>All Parties Combined</td>
<td>Each Member</td>
<td>One Member</td>
</tr>
<tr>
<td>3.1</td>
<td>Financial Performance</td>
<td>The audited balance sheets or, if not required by the laws of the Applicant’s country, other financial statements acceptable to the Employer, for the last 5 years ending <strong>31st March 2015</strong> for the countries where the financial year ending on <strong>31st March</strong>, or for the last 5 years ending <strong>31st December 2015</strong> for the countries where the financial year ending on <strong>31st December</strong> shall be submitted and must demonstrate the current soundness of the Applicant’s financial position and indicate its prospective long-term profitability. As the minimum requirement, an Applicant’s net worth calculated as the difference between total assets and total liabilities should be positive.</td>
<td>Must meet requirement</td>
<td>N/A</td>
<td>Must meet requirement</td>
</tr>
<tr>
<td>3.2</td>
<td>Average Annual Turnover</td>
<td>The minimum average Annual Railway systems turnover of <strong>US$ 80 million</strong> calculated as total certified payments received for contracts on progress and/or completed, within the last five years ending on <strong>31st March 2015</strong> for the countries where the financial year ending on <strong>31st March</strong>, or ending <strong>31st December 2015</strong> for the countries where the financial year</td>
<td>Must meet requirement</td>
<td>Must meet requirement</td>
<td>Must meet 25% of the requirement</td>
</tr>
</tbody>
</table>
Section III. Qualification Criteria and Requirements

### 3.3 Liquidity Position

<table>
<thead>
<tr>
<th></th>
<th>The total amount, <strong>US$ 24 Million</strong>, of liquid assets and lines of credit during the construction period.</th>
<th>Must meet requirement</th>
<th>Must meet requirement</th>
<th>Must meet 25% of the requirement</th>
<th>Must meet 40% of the requirement</th>
<th>Form FIN – 3.3</th>
</tr>
</thead>
</table>

**Note:**

(i) Wherever audited Financial Statement of Financial Year ending 31st March 2016 is available, the same will be considered.

(ii) To bring at par, turnover values will be calculated by assuming 5% inflation per annum for Indian Rupees and 2% escalation per annum for Foreign Currency for first four years of turnover values.
### 4. Experience

<table>
<thead>
<tr>
<th>No.</th>
<th>Factor</th>
<th>Requirement</th>
<th>Single Entity</th>
<th>Joint Venture (existing or intended)</th>
<th>Submission Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>All Parties Combined</td>
<td>Each Member</td>
<td>One Member</td>
</tr>
<tr>
<td>4.1</td>
<td>General Railway Systems Experience</td>
<td>Experience under Railway systems contracts in the role of prime contractor (single entity or JV member), subcontractor, or management contractor (iv) for at least last Ten (10) years, starting 1\textsuperscript{st} January 2006.</td>
<td>Must meet requirement</td>
<td>N/A</td>
<td>Must meet requirement</td>
</tr>
<tr>
<td>4.2(a)</td>
<td>Specific Railway Systems Experience</td>
<td>A minimum number of two similar (ii) contracts that have been satisfactorily and substantially (iii) completed as a prime contractor (single entity or a JV member) (iv), management contractor or subcontractor between 1\textsuperscript{st} January 2006 and application submission deadline.</td>
<td>Must meet requirement</td>
<td>Must meet requirement (v)</td>
<td>N/A</td>
</tr>
<tr>
<td>4.2(b)</td>
<td>Specific Railway Systems Experience</td>
<td>For the above or other contracts completed and under implementation as a prime contractor (single entity or JV member), management contractor or subcontractor (vi) between 1\textsuperscript{st} January 2006 and application submission deadline, a minimum construction experience in the following key activities successfully completed (vii).</td>
<td>Must meet requirement (can be a specialist subcontractor only for PSD)</td>
<td>Must meet requirement (can be a specialist subcontractor only for PSD)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### A. **Signalling & Train Control:**

1. The Applicant should have Designed, Manufactured, Supplied, Installed, Integrated, Tested and commissioned Signalling & Train control in Metro Rail systems (including MRT, LRT, sub-urban rail or High Speed Railways), involving CBTC.

2. The Applicant should have commissioned total line length of Signalling & Train Control for metro rail projects, involving CBTC as follows:
   
   - One work of at least 25 Route km
   - Or
   - Two works of at least 20 Route km each
   - Or
   - Three works of at least 15 Route km each

3. The Applicant should have commissioned at least 15 Route km of Signalling & Train control involving CBTC projects in a country other than country of manufacture or in India.
4. At least 10 Route km of CBTC Section should have been commissioned in underground section and proven with continuous service for a minimum period of 2 years and still working satisfactorily.

B. **Telecommunication**:

1. The Applicant should have Designed, Supplied, Installed, Integrated, Tested and commissioned Telecommunication systems in Metro Rail systems (including MRT, LRT, sub-urban rail or High Speed Railways).

2. The Applicant should have commissioned telecommunication systems in Metro Rail Projects as follows:
   - One work of at least 20 stations
   - Or
   - Two works of at least 16 stations each.
   - Or
   - Three works of at least 10 stations each.

3. The applicant should have commissioned Telecommunication systems at least at 10 stations in a country other than applicant’s country of origin or in India.
4. At least 8 Stations should have been Commissioned in underground section and proven with continuous service for a minimum period of 2 years and still working satisfactorily.

C. **Platform Screen Doors**: -
   1. The Applicant or the sub-contractor, if any, should have Designed, Manufactured, Supplied, Installed, Integrated, Tested & Commissioned Platform Screen Doors (PSD) / Platform Edge Doors (PED) in Metro Rail Systems (including MRT, LRT, sub-urban rail or High Speed Railways).
   2. The Applicant should have commissioned Half/Full height Platform Screen Doors (PSD) / Platform Edge Doors (PED) in one project comprising minimum 10 Stations or two projects totalling 15 Stations.
   3. The applicant should have commissioned PSD/PED system at least at 5 stations in a country other than country of manufacture or in India.
   4. At least 5 Stations should have been commissioned with PSD/PED system and proven with continuous service for a minimum period of 2 years and
### Notes for the Applicant

(i) A management contractor is a firm which takes on the role of contract management as a “general” contractor of sort could do. It does not normally perform directly the construction work(s) associated with the contract. Rather, it manages the work of other (sub) contractors while bearing full responsibility and risk for price, quality, and timely performance of the work contract.

(ii) The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VI, Scope of Works. Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

(iii) Substantial completion shall be based on 80% or more of the works completed under the contract.

(iv) For contracts under which the Applicant participated as a JV member, only the Applicant’s share, by value, shall be considered to meet this requirement.

(v) In case of a JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members, each of value equal or more than the minimum value required, shall be aggregated.

(vi) For contracts under which the Applicant participated as a JV member or subcontractor, only the Applicant's share by value, shall be considered to meet this requirement.

(vii) Volume, number or rate of production of any key activity can be demonstrated in one or more contract combined if executed during same time period. The rate of production shall be the annual production rate for the key construction activity (or activities). For the rate of production, either the average during the entire period or in anyone or more years during the period should be specified.
Section IV. Application Forms
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<th>Description</th>
<th>Page</th>
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</thead>
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<td>Form ELI -1.2 Applicant’s Party Information Form</td>
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<td>Form CON - 2 Historical Contract Non-Performance</td>
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<td>Form FIN - 3.1 Financial Situation</td>
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<td>Form FIN- 3.3: Liquidity Position</td>
<td>..........................................................</td>
<td>13</td>
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<tr>
<td>Form EXP - 4.1 General Railway Systems Experience</td>
<td>..........................................................</td>
<td>15</td>
</tr>
<tr>
<td>Form EXP - 4.2(a) Specific Railway Systems Experience</td>
<td>..........................................................</td>
<td>16</td>
</tr>
<tr>
<td>Form EXP - 4.2(b) Specific Railway Systems Experience in Key Activities</td>
<td>..........................................................</td>
<td>18</td>
</tr>
<tr>
<td>Form ACK Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans</td>
<td>..........................................................</td>
<td>20</td>
</tr>
</tbody>
</table>
Application Submission Form

Date: [insert day, month, year]
IFP No.: MM3-CBS-STPT.

To: The Managing Director, MMRC

R13 NaMTTRI building E-Block, Bandra Kurla Complex,
City: Mumbai
Post Code: 400 051
Republic of India

We, the undersigned, apply to be prequalified for the following contract(s) for the Mumbai Metro Line 3 (Colaba-Bandra-SEEPZ).

Design, Manufacture, Supply, Installation, Testing and commissioning of Signalling, Train Control, Platform Screen Doors and Telecommunication

We declare that:

(a) We have examined and have no reservations to the Prequalification Documents, including Addendum(s) No(s). Issued in accordance with Instructions to Applicants (ITA) 7: [insert the number and issuing date of each Addendum]

(b) We, including subcontractor, meet the eligibility requirements as stated in ITA 4.

(c) We, including subcontractor, have no conflict of interest in accordance with ITA 4.

(d) We, in accordance with ITA 22.1, plan to subcontract the following key activities and/or parts of the Works:

[Insert any of the key activities identified in Section III- 4.2 (b) which the Applicant intends to subcontract]

(e) We understand that you may cancel the prequalification process at any time and that you are neither bound to accept any Application that you may receive nor to invite the prequalified Applicants to Bid for the contract subject of this prequalification, without incurring any liability to the Applicants, in accordance with ITA 24.

(f) All information, statements and description contained in the Application are in all respect true, correct and complete to the best of our knowledge and belief.
Signed [insert signature(s) of an authorised representative(s) of the Applicant]
Name [insert full name of person signing the Application]
In the capacity of [insert capacity of person signing the Application]
Duly authorised to sign the Application for and on behalf of:
Applicant’s name [insert full name of Applicant]
Address [insert street number/town or city/country address]
Dated on [insert day number] day of [insert month], [insert year]

[For a Consortium/JV, an authorised representative of the Consortium/JV shall sign, in which case the power of attorney to sign on behalf of all members shall be attached.]
## Form ELI-1.1
### Applicant Information Form

<table>
<thead>
<tr>
<th>Date: [insert day, month, year]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFP No.: MM3-CBS-STPT.</td>
</tr>
<tr>
<td>Page [insert page number] of [insert total number] pages</td>
</tr>
</tbody>
</table>

**Applicant’s legal name**

[insert full name]

**In case of a JV, legal name of the representative member and each member:**

[Insert full name of each member in the JV and specify the representative member.]

**Applicant's actual or intended country of registration:**

[insert country of registration]

**Applicant’s actual or intended year of incorporation:**

[insert year of incorporation]

**Applicant’s legal address in country of registration:**

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

**Applicant’s authorized representative information**

Name: [insert full name]

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

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

E-mail address: [insert E-mail address]

1. Attached are copies of original documents of

- Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITA 4.3.
- In case of a JV, letter of intent to form JV or JV agreement, in accordance with ITA 4.2.

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.
Form ELI-1.2
Applicant’s Party Information Form

[The following form is additional to Form ELI – 1.1., and shall be completed to provide information relating to each JV member (in case the Applicant is a JV) as well as any specialist subcontractor proposed to be used by the Applicant for any part of the Contract resulting from this prequalification]

Date: [insert day, month, year]
IFP No.: MM3-CBS-STPT.
Page [insert page number] of [insert total number] pages

| Applicant’s legal name:                          |
| [insert full name]                             |
| Applicant’s Party legal name:                  |
| [insert full name of Applicant’s party]        |
| Applicant’s Party country of registration:     |
| [insert country of registration]               |
| Applicant’s Party year of incorporation:       |
| [insert year of incorporation]                 |
| Applicant’s Party legal address in country of registration: |
| [insert street/ number/ town or city/ country] |
| Applicant’s Party authorized representative information |
| Name: [insert full name]                       |
| Address: [insert street/ number/ town or city/ country] |
| Telephone/Fax numbers: [insert telephone/fax numbers, including country and city codes] |
| E-mail address: [insert E-mail address]         |

1. Attached are copies of original documents of

☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITA 4.3.

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.
Form CON - 2
Historical Contract Non-Performance

[The following table shall be filled in for the Applicant and for each member of a JV]

Date: [insert day, month, year]
Applicant’s Legal Name: [insert full name]
Applicant’s Party Legal Name: [insert full name]
IFP No.: MM3-CBS-STPT.
Page [insert page number] of [insert total number] pages

1. History of Non-Performing Contracts

<table>
<thead>
<tr>
<th>Year</th>
<th>Non performed portion of contract</th>
<th>Contract Identification</th>
<th>Total Contract Amount (current value, currency, exchange rate and USD equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert year]</td>
<td>[insert amount and percentage]</td>
<td>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: [insert full name] Address of Employer: [insert street/city/country] Reason(s) for non-performance: [indicate main reason(s)]</td>
<td>[insert amount]</td>
</tr>
</tbody>
</table>
2. Pending Litigation

<table>
<thead>
<tr>
<th>Year of Dispute</th>
<th>Amount in Dispute</th>
<th>Outcome as Percentage of Net Worth</th>
<th>Contract Identification</th>
<th>Total Contract Amount (current value, currency, exchange rate and USD equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert year]</td>
<td>[insert amount]</td>
<td>[insert percentage]</td>
<td>Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: [insert full name] Address of Employer: [insert street/city/country] Matter in dispute: [indicate main issues in dispute] Status of dispute: [Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</td>
<td>[insert amount]</td>
</tr>
</tbody>
</table>

Pending Litigation

☐ No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.

☐ Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2 as indicated below.
3. Litigation History

<table>
<thead>
<tr>
<th>Year of award</th>
<th>Contract Identification</th>
<th>Total Contract Amount (current value, currency, exchange rate and USD equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert year]</td>
<td>Contract Identification: [indicate complete contract name, number, and any other identification]</td>
<td>[insert amount]</td>
</tr>
<tr>
<td></td>
<td>Name of Employer: [insert full name]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Address of Employer: [insert street/city/country]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matter in dispute: [indicate main issues in dispute]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Party who initiated the dispute: [indicate “Employer” or “Contractor”]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Status of dispute: [indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</td>
<td></td>
</tr>
</tbody>
</table>
### Form FIN - 3.1

**Financial Situation**

*The following table shall be filled in for the Applicant and for each member of a JV*

Date: [insert day, month, year]

Applicant’s Legal Name: [insert full name]

Applicant’s Party Legal Name: [insert full name]

IFP No.: MM3-CBS-STPT.

Page [insert page number] of [insert total number] pages

#### 1. Financial data

<table>
<thead>
<tr>
<th>Type of Financial information in (currency)</th>
<th>Historic Information for Previous [insert number] years (amount in currency, currency, exchange rate*, USD equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1</td>
</tr>
</tbody>
</table>

**Statement of Financial Position (Information from Balance Sheet)**

- Total Assets (TA)
- Total Liabilities (TL)
- Net Worth (NW)
- Current Assets (CA)
- Current Liabilities (CL)

**Information from Income Statement**

- Total Revenue (TR)
- Profits Before Taxes (PBT)
- Profits After Taxes (PAT)
Section IV. Application Forms

2. Financial documents

The Applicant and its members shall provide copies of financial statements for five [5] years pursuant to Section III, Qualifications Criteria and Requirements, Sub-Factor 3.1. The financial statements shall:

(a) Reflect the financial situation of the Applicant or in case of a JV, of each member, and not of an affiliated entity (such as parent company or group member).

(b) Be independently audited or certified in accordance with local legislation.

(c) Be complete, including all notes to the financial statements.

(d) Correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements** for the five [5] years required above, and complying with the requirements.

* Refer to ITA 13.2 for the exchange rate.

** If the most recent set of financial statements is for a period earlier than 12 months from the date of Application, the reason for this should be justified. (Financial statements to be submitted for the last 5 years ending 31st March 2015 for the countries where the financial year ending on 31st March or for the last 5 years ending 31st December 2015 for the countries where the financial year ending on 31st December shall be submitted. Wherever audited Financial Statement of Financial Year ending 31st March 2016 is available, the same will be considered).

Note:
Form FIN-3.1 is duly filled shall be self-certified and certified by certified auditors/Chartered Accountants.
Form FIN - 3.2
Average Annual Turnover

[The following table shall be filled in for the Applicant and for each member of a JV]

<table>
<thead>
<tr>
<th>Date: [insert day, month, year]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant’s Legal Name: [insert full name]</td>
</tr>
<tr>
<td>Applicant’s Party Legal Name: [insert full name]</td>
</tr>
<tr>
<td>IFP No.: MM3-CBS-STPT.</td>
</tr>
<tr>
<td>Page [insert page number] of [insert total number] pages</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount and Currency</th>
<th>Exchange Rate*</th>
<th>USD Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>[indicate year]</td>
<td>[insert amount and indicate currency]</td>
<td>[insert applicable exchange rate]</td>
<td>[insert amount in USD equivalent]</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

**Average Annual Construction Turnover**

* Refer to ITA 13.2 for date and source of exchange rate.

** Total USD equivalent for all years divided by the total number of years. See Section III, Qualification Criteria and Requirements, Sub-Factor 3.2.

Note:
Form FIN-3.2 is duly filled shall be self-certified and certified by certified auditors/Chartered Accountants.
Form FIN- 3.3: Liquidity Position

[The following table shall be filled in by the Bidder and by each member of a JV.]

Date: [insert day, month, year]
Bidder’s Legal Name: [insert full name]
Joint Venture Party Legal Name: [insert full name]
IFP No.: MM3-CBS-STPT.
Page [insert page number] of [insert total number] pages

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Source of Financing</th>
<th>Amount and Currency</th>
<th>Exchange Rate*</th>
<th>USD Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[indicate month/year]</td>
<td>[indicate source of financing]</td>
<td>[insert amount and indicate currency]</td>
<td>[insert applicable exchange rate]</td>
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</tr>
</tbody>
</table>

TOTAL ..........................

- Liquid assets and unused Line of Credit
(Please extend this table as required)

*Date of Exchange rate: 31-12-2015

Source of Exchange rate: The source for determining exchange rate is Reserve Bank of India reference rate (foreign currency). If the source of the exchange rate for the Bidder’s proposed currency cannot be found in the Reserve Bank of India reference rate (foreign currency), then with the Employer’s concurrence, the rate in the web site; www.xe.com may be used.

Applicants are required to submit a bank reference letter from a reputable commercial bank to the effect that such bank certifies the financial capability of the applicants to meet their financial obligation to perform the said contract and considers to issue a specific line of credit when and if the contract is awarded to the applicants.
Ref No: -  
[Insert day, month, year]

Date:

Managing Director, MMRC  
MMRDA, Bandra Kurla Complex, Bandra (East), City: Mumbai  
Post Code: 400 051  
Republic of India

Dear Sir  

Sub: Evidence of access to working Capital limit to {Bidder’s Legal Name: [insert full name]} in connection with their bid for Design, Manufacture, Supply, Installation, Testing, Commissioning, and handover to the client of the whole Signaling, Platform Screens Doors & Telecommunications equipment (Pre-qualification No: - MM3-CBS-STPT)

We understand from {Bidder’s Legal Name: [insert full name and address]}, one of the reputed customers of our Branch, that they are submitting their Bid for Design, Manufacture, Supply, Installation, Testing, Commissioning, and handover to the client of the whole Signaling, Platform Screens Doors & Telecommunications equipment, (Invitation for Bid No.: MM3-CBS-STPT.).

Further, we understand from {Bidder’s Legal Name: [insert full name]} that they are required to submit a letter from their bankers confirming availability of Working Capital support / Line of Credit i.e. Overdraft to the extent of /INR/USD/EURO/YEN i.e XXX million as required until completion of Contract as per the details given below:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Particulars</th>
<th>Amount INR/USD/EURO/YEN million</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We wish to inform you that the Company is one of our Prime customers of our Branch. The company is enjoying total Working Capital limits i.e. Cash Credit limit of /INR/USD/EURO/YEN i.e XXX million/ and the Guarantee / Letters of Credit limit of /INR/USD/EURO/YEN i.e XXX million/ from Banking System under the system arrangement.

In this connection, we shall provide necessary Working Capital support i.e. Overdraft to the extent of /INR/USD/EURO/YEN i.e .XXX million/ as per terms applicable for such limits within the consortium. The above Credit facility proposed until completion of Contract to be extended to the bidder shall be subject to due diligence and approvals from our sanctioning authorities.

Yours Sincerely  
{Bank Name}  

Banker’s authorised representative information

Name: [insert full name]

Address: [insert street/ number/ town or city/ country]  
Telephone/Fax numbers: [insert telephone/fax numbers, including country and city codes]  
E-mail address: [insert E-mail address]
Form EXP - 4.1
General Railway Systems Experience

[The following table shall be filled in for the Applicant and for each member of a JV]

Date: [insert day, month, year]
Applicant’s Legal Name: [insert full name]
Applicant’s Party Legal Name: [insert full name]
IFP No.: MM3-CBS-STPT.
Page [insert page number] of [insert total number] pages

[Identify contracts that demonstrate continuous construction work over the past Ten (10) years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 4.1. List contracts chronologically, according to their commencement (starting) dates.]

<table>
<thead>
<tr>
<th>General Railway Systems Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting Year</strong></td>
</tr>
<tr>
<td>[indicate year]</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

* Refer to ITA 13.2 for date and source of exchange rate.

Form EXP-4.1 is duly filled shall be self-certified and supported by the necessary documents issued by the respective clients, in support of experience is to be furnished
Form EXP - 4.2(a)
Specific Railway Systems Experience

[The following table shall be filled in for contracts performed by the Applicant, each member of a JV.]

Date: [insert day, month, year]
Applicant’s Legal Name: [insert full name]
Applicant’s Party Legal Name: [insert full name]
IFP No.: MM3-CBS-STPT.
Page [insert page number] of [insert total number] pages

[Fill out one (1) form per contract.]

<table>
<thead>
<tr>
<th>Contract of Similar Size and Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar Contract No.</td>
</tr>
<tr>
<td>[insert number] of [insert number of similar contracts required]</td>
</tr>
<tr>
<td>Contract Identification</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Role in Contract</td>
</tr>
<tr>
<td>[check the appropriate box]</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total Contract Amount</td>
</tr>
<tr>
<td>If member in a JV, specify participation in total Contract amount</td>
</tr>
<tr>
<td>Employer’s Name:</td>
</tr>
<tr>
<td>Address:</td>
</tr>
<tr>
<td>Telephone/Fax Number:</td>
</tr>
<tr>
<td>E-mail:</td>
</tr>
</tbody>
</table>
### Similar Contract No.

<table>
<thead>
<tr>
<th>[insert number] of [insert number of similar contracts required]</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:</td>
<td></td>
</tr>
<tr>
<td>1. Physical Size of required works items</td>
<td>[insert physical size of items]</td>
</tr>
<tr>
<td>2. Complexity</td>
<td>[insert description of complexity]</td>
</tr>
<tr>
<td>3. Methods/Technology</td>
<td>[insert specific aspects of the methods/technology involved in the contract]</td>
</tr>
<tr>
<td>4. Other Characteristics</td>
<td>[insert other characteristics as described in Section VI, Scope of Works]</td>
</tr>
</tbody>
</table>

* Refer to ITA 13.2 for date and source of exchange rate.

Form EXP-4.2(a) is duly filled shall be self-certified and supported by the necessary documents issued by the respective clients, in support of experience is to be furnished.
Form EXP - 4.2(b)  
Specific Railway Systems Experience in Key Activities

Date: [insert day, month, year]  
Applicant’s Legal Name: [insert full name]  
Applicant’s Party Legal Name: [insert full name]  
Subcontractor’s Legal Name: [insert full name]  
IFP No.: MM3-CBS-STPT.

Page [insert page number] of [insert total number] pages

[Fill out one (1) form per contract.]  
Key Activity No. - Signal & Train control and/or Telecommunication and/or PSD system(s)  
Total Quantity of Activity under the contract: ________________________________

| Contract with Similar Key Activities |
|--------------------------------------|---------------------------------|-----------------|-----------------|
|                                      | Item                             | Information     |                  |
|                                      | Contract Identification          | [insert contract name and number, if applicable] |                  |
|                                      | Award Date                       | [insert day, month, year, e.g., 15 June, 2015] |                  |
|                                      | Completion Date                  | [insert day, month, year, e.g., 03 October, 2017] |                  |
|                                      | Role in Contract                 | Prime Contractor | Management Contractor | Subcontractor |
|                                      | [check the appropriate box]      | Single entity   | □                | □               | □               |
|                                      |                                  | JV member        | □                | □               | □               |
|                                      | Total Contract Amount            | [insert total contract amount in local currency] | USD [insert Exchange rate and total contract amount in USD equivalent]* |
|                                      | Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year [Insert extent of participation indicating actual quantity of key activity successfully completed in the role performed] | Total quantity in the contract (i) | Percentage participation (ii) | Actual Quantity Performed (i) x (ii) |
|                                      | Year 1                           |                  |                  |                  |
|                                      | Year 2                           |                  |                  |                  |
|                                      | Year 3                           |                  |                  |                  |
|                                      | Year 4                           |                  |                  |                  |
**Section IV. Application Forms**

**AF-19**

<table>
<thead>
<tr>
<th>Employer’s Name:</th>
<th>[insert full name]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>[indicate street / number / town or city / country]</td>
</tr>
<tr>
<td>Telephone/Fax Number:</td>
<td>[insert telephone/fax numbers, including country and city area codes]</td>
</tr>
<tr>
<td>E-mail:</td>
<td>[insert E-mail address, if available]</td>
</tr>
</tbody>
</table>

* Refer to ITA 13.2 for date and source of exchange rate.

2. Activity No. (2) _____

3. Activity No. (3) _____

Form EXP-4.2(b) is duly filled shall be self-certified and supported by the necessary documents issued by the respective clients, in support of experience is to be furnished.
Form ACK
Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans

A) I, [insert name and position of authorized signatory], being duly authorized by [insert name of Applicant/members of joint venture (“JV”)] (hereinafter referred to as the “Applicant”) to execute this Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans, hereby certify on behalf of the Applicant and myself that all information provided in the Application submitted by the Applicant for [insert Loan No and name of the Project] is true, correct and accurate to the best of the Applicant’s and my knowledge and belief. I further certify, on behalf of the Applicant, that:

(i) the Application has been prepared and submitted in full compliance with the terms and conditions set forth in the Guidelines for Procurement under Japanese ODA Loans (hereinafter referred to as the “Guidelines”); and

(ii) the Applicant has not, directly or indirectly, taken any action which is or constitutes a corrupt, fraudulent, collusive or coercive act or practice in violation of the Guidelines and is not subject to any conflict of interest as stipulated in the relevant section of the Guidelines.

<If debarment for more than one year by the World Bank Group is NOT imposed, use the following sentence B).>

B) I certify that the Applicant has NOT been debarred by the World Bank Group for more than one year since the commencement of the advertisement for prequalification.

<If debarment for more than one year by the World Bank Group has been imposed BUT three (3) years have passed since the date of such debarment decision, use the following sentence B’).>

B’) I certify that the Applicant has been debarred by the World Bank Group for a period more than one year BUT that on the date of issuance of Invitation for Bids at least three (3) years had passed since the date of such debarment decision. Details of the debarment are as follows:

<table>
<thead>
<tr>
<th>name of the debarred firm</th>
<th>starting date of debarment</th>
<th>ending date of debarment</th>
<th>reason for debarment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C) I certify that the Applicant will not enter into a subcontract with a firm which has been debarred by the World Bank Group for a period more than one year, unless on the date of the subcontract at least three (3) years have passed since the date of such debarment decision.

D) I certify, on behalf of the Applicant, that if selected to undertake services in connection with the contract, the Applicant shall carry out such services in continuing compliance with the terms and conditions of the Guidelines.

E) I further certify, on behalf of the Applicant, that if the Applicant is requested, directly or indirectly, to engage in any corrupt or fraudulent action under any applicable law, such as the payment of a rebate, at any time during a process of public procurement, negotiations, execution or implementation of contract (including amendment thereof), the Applicant shall report all relevant facts regarding such request to the relevant section in JICA (details of which are specified below) in a timely manner.
JICA’s information desk on fraud and corruption (A report can be made to either of the offices identified below.)

(1) JICA Headquarters: Legal Affairs Division, General Affairs Department
    URL: https://www2.jica.go.jp/en/odainfo/index.php
    Tel: +81 (0)3 5226 8850

(2) JICA India office,
    2nd Floor, Dr. Gopal Das Bhawan,
    28, Barakhambha Road,
    New Delhi - 110001
    Tel: +91 11 47685500
    FAX: +91 11 47685555
    URL: http://www.jica.go.jp/

The Applicant acknowledges and agrees that the reporting obligation stated above shall NOT in any way affect the Applicant’s responsibilities, obligations or rights, under relevant laws, regulations, contracts, guidelines or otherwise, to disclose or report such request or other information to any other person(s) or to take any other action, required to or allowed to, be taken by the Applicant. The Applicant further acknowledges and agrees that JICA is not involved in or responsible for the procurement process in any way.

F) If any of the statements made herein is subsequently proven to be untrue or incorrect based on facts subsequently determined, or if any of the warranties or covenants made herein is not complied with, the Applicant will accept, comply with, and not object to any remedies taken by the Employer and any sanctions imposed by or actions taken by JICA.

__________________________________________
Authorized Signatory

[Insert name of signatory; title]

For and on behalf of [Insert name of the Applicant]

Date:
Section V. Eligible Source Countries of Japanese ODA Loans

[All countries and Areas]
PART 2 – Works Requirements
Section VI. Scope of Works
Contents

1. Description of the Works................................................................. SOW3
2. Construction Period............................................................................ SOW6
3. Site and Other Data............................................................................... SOW7
1. Description of the Works

The scope of work comprises the design, manufacture, supply, installation, testing, commissioning and handover to the client of complete Signaling & Train control, Platform Screens Doors & Telecommunication systems necessary to comply with the Employer’s requirements for the Mumbai Metro Line 3 project:

1.1 The scope includes:

Scope comprises of all the above but not limited to the following:

1.1.1. Design of the complete Signaling & Train Control (CBTC System), Platform Screen Doors and Telecommunication systems.
1.1.2. All equipment and associated software.
1.1.3. Installation, Testing and commissioning including system integration with the other related subsystems.
1.1.4. Technical support to the Employer, for the systems under the scope of work of Contract No: MM3-CBS-STPT during the overall system testing and commissioning of the metro system prior to the Metro being brought into operational service.
1.1.5. The training of staff on systems operation and maintenance prior to handover of Signalling & Train Control, Platform Screen Doors and Telecommunications Systems, should involve transfer of technology as needed for maintenance and for operating staff to make easy amendments and fault analysis.
1.1.6. There may be a comprehensive annual maintenance contract for Signalling & Train control System/ Platform Screen Doors/ Telecommunications Systems, during the Defect Liability Period and beyond.
1.1.7. The supply of spare parts (and availability of their repairs / replacement during life span of the equipment, and obsolescence support beyond it), special maintenance tools and test equipment.
1.1.8. The supply of all documentation required to cover the various phases of Contract No: MM3-CBS-STPT from commencement of the project through system operation, project completion and handover.

The system required for the project shall feature all equipment and systems required to form part of Signaling & Train Control, Platform Screen Doors and Telecommunications Design and Build including, but not limited to the following:

2.1 Outline Description of the Signaling & Train Control Systems

The following Signaling systems shall be installed, as applicable, within the stations, rolling stock, depot, operational control center, and line side areas:

2.1.1. An Interlocking system with a continuous train detection system using Communication Based Train Control (CBTC) for main line and depot.
2.1.2. The CBTC system shall comply with GOA4 requirements, however the operations shall start with GOA2.
2.1.3. A Continuous Automatic Train Control (CATC) system including interfacing devices with PSD comprising:

i) Automatic Train Protection (ATP):

ii) Computer Based Interlocking (CBI).

iii) Cab signaling and Automatic Train Operation (ATO).

iv) Automatic Train Supervision (ATS).

v) CBTC system

2.1.4. A separate Computer Based Interlocking shall be provided in depot, to support the train movements from Depot Control Center (DCC). CBTC in Depot shall exclude non-interlocked area such as IBL/Workshop/PWL etc.
2.1.5. Visual display through a Rear Projection Display giving a panoramic view of the entire system showing status of Trains, Points, Signals, Traction Power system etc.

2.1.6. Digital Axle Counters (DAC) of required types (with no need of drilling holes in the rail for their fitment) shall be provided as a fallback arrangement to detect track occupation by the trains in Station sections and Block sections, including Points and Crossings.

2.1.7. As a fallback arrangement line-side signals to be provided to protect the points and to permit bi-directional movements, with a facility of ATP.

2.1.8. The Depot Signaling shall also have CBTC system for Train detection with Digital Axle-counters as a backup. In case of CBTC failure, the Axle counter becomes the primary source for Train Detection.

2.1.9. All maintenance vehicles to be equipped with CBTC equipment to permit their movements at their full speed potentials in mixed mode operations along with normal train operations.

2.1.10. The Designed Headway shall be for 90 seconds.

2.1.11. All train operations shall be controlled from a centralized location i.e. Operational Control Center with fall back facility.

2.1.12. Equipment to be designed, manufactured and supplied, shall be as per International standards or IRS (Indian Railway Specifications) standards (where mentioned specifically by the Employer) with the condition that these must have been used in at-least two Metros or the Indian Railway (as the case may be) with satisfactory reports.

2.1.13. There shall be BCC (Backup Control Center) in another suitable geographical location so that in case of serious damage to Central Control Room, Train operations can be resumed from there.

2.1.14. Full fledge training facility shall be provided to train staff at Play back & Training Room (PTR). PTR to be adjacent to OCC for trainees to be familiar with the full scope of train operation.

3.1 Outline Description of the Platform Screen Doors

Full Height Platform Screen Doors (up to the ceiling) including interfacing devices with CATC(Continues Automatic Train Control) and associated monitoring and control devices shall be installed, as applicable in all platforms of all underground stations.

For the station at grade, half height Platform Edge Doors (PED) shall be provided. These PSD/PED must be of proven type.

4.1 Outline Description of the Telecommunications Systems

The following systems will be installed, as applicable, within the Stations, Depot, OCC, SS and line side areas:

4.1.1. Public Address System: - This System should cover all platform and concourse areas with local and centralized announcement from OCC and local announcement feature from stations.

4.1.2. CCTV System: - The CCTV system shall be based on IP (Internet Protocol) based technology and shall consist of a mix of High Definition fixed cameras including Pan/Tilt/Zoom (PTZ) Cameras. CCTV System should have video analytics feature broadly fulfilling the requirements of various Security agencies.

4.1.3. Access Control and Intruder Detection System: - An Access Control System shall be provided for restricting entries to important areas like SCR(Station Control Room), SER(Signaling Equipment Room), TER(Telecom Equipment Room), OCC(Operational Control Centre), DCC(Depot Control Centre), TO(Ticket Office) Rooms, etc.

4.1.4. Telephone System: - IP based telephony system having provision for analog phones for stations as well as depot and OCC and cross passages to be provided with redundancy.
4.1.5. **Centralized Voice Recording System:** - This system should record all the OCC voice conversations and announcements.

4.1.6. **Time Distribution System:** - Accurate display of time through a synchronization system of slave clocks driven from a GPS master clock at the OCC and sub - master clock in station. This may also be used for the time synchronization of other systems.

4.1.7. **Passenger Information Display system:** - This System should be LED based boards with adequate visibility to be provided at prominent locations at all stations and shall support tri-lingual (Marathi, Hindi and English) visual indications of the status of the running trains, and also special messages in emergencies.

4.1.8. **Fault Reporting Systems:** - To collect and monitor the status and alarms from the individual NMS (Network Management System) of the respective telecommunication based systems/sub-systems and display on a common Work Station.

4.1.9. **OFC Backbone Network:** - Optic Fiber Cable system to be provided as the main bearer for bulk of the data/information needing transmission. This system should be created in ring form for redundancy and should cater adequately to provide sufficient present and future MML3 requirements. The surplus fibers may be used for commercial purposes. Transmission system should support GE (Giga Ethernet) based network.

4.1.10. **TETRA/LTE Radio System for underground section / Onboard / Depot:** - Digital Train radio communication (to be provided in underground MML3 corridor) between driver of moving trains, stations, depot maintenance personnel and central control. The system to be adopted must be of proven type for Metros.

4.1.11. **VTS System:** - The Video Transmission System to be provided to have on-line Video connectivity from train to OCC.

4.1.12. **Help Point System:** - A Help Point system to be provided at the stations to assist Passengers to contact Station controller and/or OCC during duress.

4.1.13. **Uninterrupted Power Supply:** - UPS (with adequate spare capacity) to provide need based seamless uninterrupted power supply to Telecom, Signalling & Train Control, AFC equipment etc. at all time with redundancy.
2. Construction Period

The tentative project period is Thirty Six (36) months, excluding DLP.

The detailed key dates pertaining to Design, Manufacturing, Supply, Installation, Testing and commissioning of Signaling & Train control, Platform Screen Doors and Telecommunication systems shall be described in the Bid documents.
3. Site and Other Data

1. **Mumbai City Profile**

The climate of Mumbai is a tropical wet and dry climate. The high temperature in Mumbai is approximately 30-33 degrees Celsius without changing dramatically throughout a year. Since Mumbai faces the Arabian Sea, it does not experience extremely high or low temperatures. It is different from Delhi located in an inland area. Due to the monsoon, it is in the period from June to September when Mumbai experiences a continuous spell of rainy weather. Almost all of the annual rainfall of about 2,200mm concentrates in this period. There is little rainfall from February to May and the temperature is the highest in this period.

2. **Project Description**

2.1. **Outline of Project**

As shown in red in Figure 1, the alignment of Mumbai Metro Line 3 spans approximately 33.5 km from Colaba (Cuffe Parade) in the south through Bandra, ending within the Special Electronics Export Processing Zone (SEEPZ) in the north, and consists of 26 underground stations. A depot and one (1) at grade station are planned to be located in Aarey colony or suitable place nearby.

Mumbai Metro Line 3 has 9 interchanges with other transportations (railways and bus depots) to complement each other. The maximum PHPDT forecast is 39,000 in 2025 and 42,000 in 2031. The designed capacity of the Metro line is 72,000 PHPDT.

![Figure 1: Alignment of Mumbai Metro Rail Line 3](image-url)
2.2. Salient Features

The salient features of this project are shown in the table below.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gauge (Nominal): 1435 mm</td>
</tr>
<tr>
<td>2</td>
<td>Route Length (Between Dead Ends): Colaba-Bandra-SEEPZ – Underground - Aarey Milk Colony at-grade approximately 33.7 km</td>
</tr>
<tr>
<td>3</td>
<td>No. of Stations: 26 underground + 1 at-grade</td>
</tr>
<tr>
<td>4</td>
<td>Max. Design Speed: 95 km/h Max. Operating Speed: 85 km/h</td>
</tr>
</tbody>
</table>
| 5       | Traction Power System  
|         | (a) Traction System voltage: 25kV AC, 1 Phase, 50 Hertz.  
|         | (b) Type of Traction System: ROCS System (Mainline), FOCS System (Depot).  
|         | (c) LT Power supply at 415 volt, 3 phase, 50 Hertz |
| 6       | Rolling Stock  
|         | (a) 3.20m wide with stainless steel or aluminum body  
|         | (b) Maximum Axle Load: 17 tonnes  
|         | (c) Maximum Length of the cars: 22.6 m  
|         | (d) distance between bogie centres as 14.750 +/-0.350 m  
|         | (e) Max Number of cars per train: 8 |
| 7       | Signalling & Train Control (S&TC)  
|         | CBTC (Communication Based Train Control) shall be equipped for GOA4 system. In the beginning the commercial train operations (on Main Lines) to be with CBTC at GOA2 level and the non-commercial (e.g. Stabling Line including in the part of Depot area) the train operations to be with CBTC at GOA4 level. Safety critical systems should comply with appropriate SIL levels as specified in EN50126. |
| 8       | AFC  
|         | (a) Contactless Smart Cards (of required types) – For multiple journeys.  
|         | (b) Contactless Smart Token – For Single Journey |
### Section VI. Scope of Works

<table>
<thead>
<tr>
<th>9</th>
<th>TVS/ECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Tunnel Ventilation</td>
</tr>
<tr>
<td></td>
<td>(a) Tunnel ventilation and track way exhaust systems.</td>
</tr>
<tr>
<td></td>
<td>(b) Tunnel ventilation system with/ without Saccardo nozzle to push smoke to the TVF exhaust point for tunnel fire emergency scenarios.</td>
</tr>
<tr>
<td></td>
<td>(c) Under-Platform Air Supply Systems (UPASS) consists of Ventilation fans which can provide ambient air into the track way.</td>
</tr>
<tr>
<td></td>
<td>ii) Environmental Control System</td>
</tr>
<tr>
<td></td>
<td>(a) Chilled water cooling system for public areas, offices and plant rooms.</td>
</tr>
<tr>
<td></td>
<td>(b) Station smoke exhaust system to use <em>OTE</em> plants.</td>
</tr>
<tr>
<td>10</td>
<td>Signage - TBA</td>
</tr>
</tbody>
</table>

#### 2.3. Other Information

(a) Access to site

Information on access to site is described in the Bid documents.

(b) Transportation, communications facilities and medical facilities

The Contractor shall procure transportation, communications facilities and medical facilities at his own responsibility.

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