



Mumbai Metropolitan Region Development Authority

REQUEST FOR PROPOSAL (RFP)

For

Selection of Consultant

for

Updation of Comprehensive Transportation Study for Mumbai Metropolitan Region (MMR)

Country: India

December, 2014

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Section 1. Letter of Invitation (LOI)

NO: T/MRTS/CTS2//2014/

December 17, 2014

Invitation for Appointment of Consultant

Dear,

Sub: Letter of Invitation (LOI) – Updation of Comprehensive Transportation Study for Mumbai Metropolitan Region (MMR).

Background:

Mumbai Metropolitan Region Development Authority (MMRDA) under MUTP and with Technical Assistance of World Bank had carried out the Comprehensive Transportation Study (CTS) for Mumbai Metropolitan Region (MMR) through M/s LEA International Ltd. (LIL), Canada and LEA Associates South Asia Private Limited (LASA), New Delhi (LEA Group) as a consultant. CTS for MMR has recommended for planned development of transport system in MMR for the period up to 2031 requiring an investment more than Rs 200,000 crores (about US\$ 50 billion). This includes implementing projects pertaining to up-gradation of the present transport network, as well as additions to the highway and transit systems for the various plan periods i.e., short term (2008-2016), medium term (2017-2021) and long term (2022-2031).

2. MMRDA made efforts as a step towards implementation of CTS recommendations by initiating the Technical Assistance (TA) in 2009 which was concluded in August 2012.

3. During last decade after Completion of CTS & TA study, MMR has been widely experiencing major developments mainly inclusion of 27 villages in notified area in kalyan & 51 villages in notified area in Bhivandi, Changed Land-use at Wadala, Navi Mumbai Airport Influence Notified Area (NAINA), SEZ at JnPT, changes in Development Plans etc and these developments are changing whole scenario of MMR.

4. In view of the above, MMRDA intends to update the CTS Travel Demand model and Plan with recent population Census 2011 and Economic Census in addition to above major developments.

5. Objectives:

The main objective of this assignment is to update the Comprehensive Transport Study for Mumbai Metropolitan Region considering the Recent Population & Economic census in addition to above major developments. The scope of the consultancy service is as below:

Scope of services: The scope of work is as follows:-

Task-1: Review of Earlier CTS Model and Assessment of Planning parameters for 2015 based on Census 2011 and recent Economic Census

Task -2: Data Collection: Through Secondary sources and identify additional primary surveys.

Task-3: Review of CTS short-listed Land use scenarios and Updating/Modifying CTS recommended Land Use Scenario for MMR.

Task -4: Assessment of major developments & land use updation for the base year 2015

Task-5: Assessment/updating of planning parameters, transport network updations for the horizon period upto 2021, 2031 and 2041 and network analysis.

Task-6: Updating the CTS models and analysis using state-of-the-art Urban Transportation Planning Software

Task-7: Analysis & Estimation of Travel Demand for Updated Land Use scenario for different horizon periods 2021, 2031 & 2041.

Task-8: Re-phasing, Re-prioritization & Cost assessment of CTS recommended transport infrastructure projects including all developments, for the horizon periods 2021, 2031 and 2041.

Task-9: Fare Sensitivity Analysis of public transport modes in MMR.

Detailed scope of services is given in Section 5 of RFP document.

6. Eligibility Criteria: Eligibility Criteria for assignment is given at clause 6.1 of Section 2.

7. A JV/consortium of maximum 3 firms is permitted.

8. Time duration for the consultancy services will be 12 months.

9. The RFP document is available to download on website:

<https://mmrda.maharashtra.gov.in/tenders-notices> from **17th December 2014** onwards. The pre-proposal conference scheduled on **7th January 2015**. The last date for submission of proposals is **10th February 2015 (Tuesday)** till **13.00** hrs in the office of:

Chief,

Transport and Communications Division,

Mumbai Metropolitan Region Development Authority,

Bandra Kurla Complex, Bandra (E), Mumbai 400051

Telephone No. +91(22)26594107

Fax: +91(22) 2659 4182

10. For further details, if required, you may contact:

1) **Shri. P.R.K. Murthy**

Chief, Transport and Communications
Division, MMRDA
Bandra Kurla Complex, Bandra (E),
Mumbai 400051
Telephone No. +91(22)26594107
Fax: +91(22) 2659 4182,
E-Mail: prkmurthy1960@yahoo.com

2) **Smt. K. Vijaya Lakshmi**

Addl. Chief (Metro, Mono &
UMMTA), MMRDA,
Bandra Kurla Complex, Bandra (E),
Mumbai 400051
Telephone No. +91(22)26594160
Fax: +91(22) 2659 4163,
E-Mail: kvl.mmrda@gmail.com
cts2update@gmail.com

11. MMRDA reserves the right to reject any/all of the proposals without assigning any reason thereof.

12. Please inform us by fax/email upon receipt:

- That you received/downloaded the letter of invitation; and
- Whether you will submit a proposal alone or as a joint Venture

Thanking You,

Yours faithfully

(P. R. K. Murthy)

Chief,
Transport & Communications Division
MMRDA

Form TECH-2: Consultant's Organization and Eligibility & Experience

Consultant's Organization

*[Provide here a brief (**two pages**) description of the background and organization of your firm/entity for this assignment.]*

Form TECH-2: Consultant's Organization and Eligibility & Experience

A - Consultant's Experience in Urban Transport Planning & Traffic projects. (During last 15 years)

[Using the format below, provide information on each assignment for which your firm was legally contracted, for carrying out consulting services to the Transport Planning & Traffic Projects requested under the clause 6 of 6.1(A) section 2 ITC].

]

Assignment name:	Approx. value of the contract (in current US\$ or INR):
Country: Location within country:	Duration of assignment (months):
Name of Employer and Contact Details:	Total No of staff-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in current US\$ or Euro):
Start date (month/year): Completion date (month/year):	N ^o of professional staff-months provided by associated Consultants:
Narrative description of Project:	
Description of actual services provided by your staff within the assignment:	

Firm's Name: _____

1. Proof of Consultant's Experience in the form of attested copies (not less than the rank of Chief Engineer/Sr. Transport Planner of the Certificates issued by the Employer or Contract Agreement need to be submitted.

**Form TECH-2:
B - Consultant's Experience under Eligibility Criteria (Technical &
Financial)
(During the last 10 years)**

[Using the format below, provide information on each assignment under eligibility criteria for which your firm was legally contracted, for carrying out consulting services requested under the clause 6 of 6.1(B) section 2 ITC]

Assignment name:	Approx. value of the contract (in current US\$ or INR):
Country: Location within country:	Duration of assignment (months):
Name of Employer and Contact Details:	Total No of staff-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in current US\$ or Euro):
Start date (month/year): Completion date (month/year):	N ^o of professional staff-months provided by associated Consultants:
Narrative description of Project:	
Description of actual services provided by your staff within the assignment:	

Firm's Name: _____

2. Proof of Consultant's Experience in the form of attested copies (not less than the rank of Chief Engineer/Sr. Transport Planner of the Certificates issued by the Employer or Contract Agreement need to be submitted.

C-Average Annual Turnover in INR/US DOLLORS for Last Three Consecutive Years

[Using the format below, provide information under the clause 6 of 6.1(C) section 2 ITC]

Firm	Name	Year of Registration/ Incorporation ¹	Number of Employees as on
			31 st March, 2014
Firm/ Lead Member of Consortia or JV			
Member-2			
Member-3			
Annual Turnover from Consultancy Services (in INR)²			
	31st March, 2012	31st March, 2013	31st March, 2014
Lead Member			
Member-2			
Member-3			

Note:

1. Enclose a copy of Registration document (in case of a consultant not being a Government body/ undertaking/ PSU)
2. Enclose a copy of Audited Financial Statement for the respective financial years with authorized signatory.

Authorized Signatory	Firm/ Lead Member of Consortia or JV	Member-2	Member-3
Signature			
Name			
Designation			
Company/Firm			
Date			

Note : For quoting Annual Turnover the International traded currency permitted is US Dollor. The single currency for price conversion is INR. The source of Official selling rate is Reserve Bank of India. The date of exchange rate is 01/02/2015.

Section 2. Instructions to Consultants and Data Sheet

1. Definitions

- a) “Affiliate(s)” means an individual or an entity that directly or indirectly controls, is controlled by, or is under common control with the Consultant.
- b) “Applicable Law” means the laws and any other instruments having the force of law in the Client’s country, or in such other country as may be specified in the **Data Sheet**, as they may be issued and in force from time to time.
- c) “Client” means “Mumbai Metropolitan Region Development Authority” or “Authority” *that* signs the Contract for the Services with the selected Consultant.
- d) “Consultant” means a legally-established professional consulting firm or an entity that may provide or provides the Services to the Client under the Contract.
- e) “Contract” means a legally binding written agreement signed between the Client and the Consultant and includes all the attached documents listed in its Clause 1 (the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC), and the Appendices).
- f) “Data Sheet” means an integral part of the Instructions to Consultants (ITC) Section 2 that is used to reflect specific country and assignment conditions to supplement, but not to over-write, the provisions of the ITC.
- g) “Day” means calendar day;
- h) “Professionals” means, collectively, Key Professionals, Support Professionals, support staff, or any other personnel of the Consultant, Sub-consultant or Joint Venture member(s).
- i) “Government” means the Government of Maharashtra;
- j) “Joint Venture (JV)” means an association with or without a legal personality distinct from that of its members, of more than one Consultant where one member has the authority to conduct all business for and on behalf of any and all the members of the JV, and where the members of the JV are jointly and severally liable to the Client for the performance of the Contract.
- k) “Key Professional(s)” means an individual professional whose skills, qualifications, knowledge and experience are critical to the performance of the Services under the Contract and whose CV is taken into account in the technical evaluation of the Consultant’s proposal.
- l) “Foreign Personnel” means such professionals and support staff

who at the time of being so provided had their domicile outside the INDIA ;

- m) “Local Personnel” means such professionals and support staff who at the time of being so provided had their domicile inside India;
- n) “ITC” (this Section 2 of the RFP) means the Instructions to Consultants that provides the Consultants with all information needed to prepare their Proposals.
- o) “LOI” (this Section 1 of the RFP) means the Letter of Invitation being addressed by the Client to the Consultants.
- p) “Support Professional(s)” means an individual professional provided by the Consultant or its Sub-consultant and who is assigned to perform the Services or any part thereof under the Contract and whose CVs are not evaluated individually.
- q) “Proposal” means the Technical Proposal and the Financial Proposal of the Consultant.
- r) “RFP” means the Request for Proposals to be prepared by the Client for the selection of Consultants.
- s) “Services” means the work to be performed by the Consultant pursuant to the Contract.
- t) “Sub-consultant” means an entity to whom the Consultant intends to subcontract any part of the Services while remaining responsible to the Client during the performance of the Contract.
- u) “TORs” (this Section 5 of the RFP) means the Terms of Reference that explain the objectives, scope of work, activities, and tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.
- v) “Technical Advisory Committee or TAC” means a committee constituted by the Authority for the purpose of technical guidance to the Consultants and monitoring of the study;
- w) “INR” means Indian Rupee (s).
- x) “ITC” means Instructions to Consultants

2.Introduction

2.1 MMRDA intends to select an individual firm or Joint Venture (“the Consultant”) in accordance with the method of selection specified in the Data Sheet.

2.2 The Consultants are invited to submit a Technical Proposal and a Financial Proposal, as specified in the Data Sheet, for consulting services required for the assignment named in the Data Sheet. The Proposal will be the basis for negotiations

(for both technical and financials) and ultimately for a signing Contract with the selected Consultant.

2.3 Consultants should familiarize themselves with local conditions and take them into account in preparing their Proposals. To obtain first-hand information on the assignment and local conditions, Consultants are encouraged to visit MMRDA before submitting a proposal and to attend a pre-proposal conference if one is specified in the **Data Sheet**. Attending the pre-proposal conference and visit to MMRDA is optional and it is at the consultant's expense. Consultants should contact the MMRDA's representative named in the **Data Sheet** about their visit or to obtain additional information on the pre-proposal conference. Consultants should ensure that these officials are advised of the visit in adequate time to allow them to make appropriate arrangements.

2.4 MMRDA will timely provide at no cost to the Consultants, the inputs, relevant project data, and reports required for the preparation of the consultants Proposal as specified in the Data Sheet.

2.5 The Consultant shall bear all costs associated with the preparation and submission of its Proposal, subsequent contract negotiations and the Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultant.

3.Conflict of Interest

3.1 MMRDA requires that Consultants provide professional, objective, and impartial advice and at all times holding the MMRDA's interests paramount, strictly avoiding conflicts with other assignments or their own corporate interests and acting without any consideration for future work.

3.2 The Consultant has an obligation to disclose to the Client any situation of actual or potential conflict that impacts its capacity to serve the best interest of its Client. Failure to disclose such situations may lead to the disqualification of the Consultant or the termination of its Contract.

3.2.1 Without limitation on the generality of the foregoing, and unless stated otherwise in the Data Sheet, the Consultant shall not be hired under the circumstances set forth below:

a. Conflicting activities

(i) Conflict between consulting activities and procurement of goods, works or non-consulting services: A firm that has been engaged by MMRDA to provide goods, works or services other than consulting services for a project, and any of its affiliates, shall be disqualified from providing

consulting services related to those goods, works or services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods or works or services other than consulting services resulting from or directly related to the firm's consulting services for such preparation or implementation. For the purpose of this paragraph, services other than consulting services are defined as those leading to a measurable physical output, for example surveys, exploratory drilling, aerial photography, and satellite imagery.

b. Conflicting assignments

- (ii) Conflict among consulting assignments: A Consultant (including its Personnel and Sub Consultants) shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Employer. For example, a Consultant hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project, and a Consultant assisting a Employer in the privatization of public assets shall not purchase, nor advice purchasers of, such assets. Similarly, a Consultant hired to prepare Terms of Reference for an assignment should not be hired for the assignment in question. The hired consultant for the present assignment shall not work with any other firm or developer or agency on the same assignment nor would advise on such matters to any other firm except MMRDA.

c. Conflicting relationships

- (iii) Relationship with the client's staff: A Consultant (including its Professionals and Sub Consultants) that has a business or family relationship with a member of the MMRDA's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment, (ii) the selection process for such assignment, or (iii) supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the MMRDA throughout the selection process and the execution of the Contract.
- (iv) No agency or current employees of the MMRDA shall work as Consultants under their own ministries, departments or agencies. Recruiting former employees of the MMRDA and Government to work for their former ministries, departments or agencies is acceptable provided no conflict of interest exists. When the Consultant nominates any government employee as a professional in their technical proposal, such professional must have written certification from their government or employer confirming that they are on leave without pay from their official position and allowed

to work full-time outside of their previous official position. Such certification shall be provided to the MMRDA by the Consultant as part of his technical proposal.

4. Unfair competitive Advantage

- 4.1 If a Consultant could derive a competitive advantage from having provided consulting services related to the assignment in question, MMRDA shall make available to all Consultants together with this RFP all information that would in that respect give such Consultant any competitive advantage over competing Consultants.

5. Corrupt and Fraudulent Practices

- 5.1 The consultants and their agents (whether declared or not), personnel, sub-contractors, sub-consultants, service providers and suppliers observe the highest standard of ethics during the selection and execution of such contracts and must not indulge in any corrupt /fraudulent practice defined here under:

- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party¹
- (ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation²;
- (iii) “collusive practices” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party³;
- (iv) “coercive practices” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party⁴;
- (v) “obstructive practice” is
 - (a) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a MMRDA investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing

¹ “Another party” refers to a public official acting in relation to the selection process or contract execution. In this context “public official” includes employees of other organizations taking or reviewing selection decisions.

² A “party” refers to a public official; the terms “benefit” and “obligation” relate to the selection process or contract execution; and the “act or omission” is intended to influence the selection process or contract execution.

³ “Parties” refers to participants in the procurement or selection process (including public officials) attempting to establish contract prices at artificial, non competitive levels.

⁴ “Party” refers to a participant in the selection process or contract execution.

its knowledge of matters relevant to the investigation or from pursuing the investigation, or

- (b) will reject a proposal for award if it determines that the consultant recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- (c) will sanction a firm or an individual at any time.

5.2 Consultants, their agents (whether declared or not), personnel, sub-contractors, sub-consultants, service providers and suppliers shall not be under a declaration of ineligibility for aforesaid (Para 5.1) corrupt and fraudulent practices. Furthermore, the Consultants shall be aware of the provisions on fraud and corruption stated in the specific clauses in the General Conditions of Contract.

5.3 Consultants shall furnish information on commissions and gratuities, if any, paid or to be paid to agents relating to this proposal and during execution of the assignment if the Consultant is awarded the Contract, as requested in the Financial Proposal submission form (Section 4).

6. Eligibility Criteria

6.1 The Consultancy firms must meet the following eligibility criteria. In case, a consultancy firm does not meet all the criteria, it can form a consortium/Joint venture of not more than three firms with one of the firm as “Lead Member”. The following criteria should be fulfilled by the firm Lead Member/Consortium.

- A) Minimum 15 years experience in consultancy services in urban transportation planning & traffic projects⁵.
- B) Completed at least 2 (Two) Comprehensive Transportation Study (CTS) project involving **development of Urban Transportation Planning (UTP) models** by using State-of-the-art transportation planning software during the last 10 years preceding Proposal Due Date (PDD) pertaining to cities/ metropolitan regions, with population not less than 10 (Ten) million.
- C) Average Annual turnover INR 250 million (US\$ 4.5 million) and above for the last 3 consecutive financial years preceding the PDD. In case of consortium this is applicable to “Lead Member” and the Total Average Annual Turnover of the consortium should be more than INR 450 million (US\$ 7.5

⁵ “Urban Transport Planning & Traffic” projects implies public transportation projects related to rail/road based sectors.

million) for the last 3 consecutive financial years preceding the PDD.

D) A JV/consortium of maximum 3 firms is permitted.

Note: 1) The firms/JV fulfills the above eligibility criteria will be considered for further evaluation of their proposals. The firms/JV those who are not fulfilling the above eligibility criteria considered ineligible, that their proposals both opened "Technical (envelope-1) and Financial (envelope-2)" will be returned after completing the selection process. For this purpose of sub-consultants experience shall not be included.

2) Any Consultant/JV claiming experiences of their parent/sister company shall have participation of at least 30% of key man-months inputs of the international firm whose experience is quoted in technical proposal. Otherwise, the experience of the international firm will not be considered in the evaluation.

- The above information shall be submitted as part of Technical Proposal (envelope 2- Form Tech-2)

- | | | |
|---|------|--|
| 7. Eligibility | 7.1 | A consultancy firm/JV sanctioned by the MMRDA in accordance with the above para. 5.1 (c) shall be ineligible to be awarded contract by MMRDA, during such period of time as the MMRDA shall determine. |
| 8. Origin of Goods and Consulting Services | 8.1 | <p>Goods supplied and Consulting Services provided under the Contract may originate from any country except if:</p> <p>(i) as a matter of law or official regulation, the Government of India prohibits commercial relations with that country; or</p> <p>(ii) by an act of compliance with a decision of the United nations Security Council taken under Chapter VII of the Charter of the United Nations, the Government of India prohibits any imports of goods from that country or any payments to persons or entities in that country.</p> |
| 9. Only One Proposal | 9.1 | The Proposal shall comprise the documents and forms listed in the Data Sheet . |
| | 9.2 | Consultants may submit only one proposal. If a Consultant submits or participates in more than one proposal, such proposals or consultants shall be disqualified. |
| | 9.3 | In preparing the Proposal, the Consultant is expected to examine the RFP in detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal. |
| 10.Proposal | 10.1 | The Data Sheet indicates how long Consultants' Proposals must |

Validity

remain valid after the submission date. During this period, Consultants shall maintain the availability of Professional staff nominated in the Proposal. The MMRDA will make its best effort to complete negotiations within this period.

10.2 **The Data Sheet** indicates the period during which the Consultant's Proposal must remain valid after the Proposal submission deadline.

10.3 During this period, the Consultant shall maintain its original Proposal without any change, including the availability of the Key Professionals, the proposed rates and the total price.

10.4 If it is established that any Key Professionals nominated in the Consultant's Proposal was not available at the time of Proposal submission or was included in the Proposal without his/her confirmation, such Proposal shall be disqualified and rejected for further evaluation, and may be subject to sanctions in accordance with Clause 5 of this ITC.

a. Extension of Validity Period

10.5 The Client will make its best effort to complete the negotiations within the proposal's validity period. However, should the need arise, the Client may request, in writing, all Consultants who submitted Proposals prior to the submission deadline to extend the Proposals' validity.

10.6 If the Consultant agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal and with the confirmation of the availability of the Key Professionals.

10.7 The Consultant has the right to refuse to extend the validity of its Proposal in which case such Proposal will not be further evaluated.

b. Sub-Contracting

The Consultant shall not subcontract the whole of the Services.

11. Clarification and Amendment of RFP Documents

11.1 The Consultant may request a clarification of any part of the RFP during the period indicated in the **Data Sheet** before the Proposals' submission deadline. Any request for clarification must be sent in writing, or by standard electronic means, to the Client's address indicated in the **Data Sheet**. The Client will respond in writing, or by standard electronic means, and will send written copies of the response (including an explanation of the query but without identifying its source) to all Consultants. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure described below:

11.1.1 At any time before the proposal submission deadline, the Client may amend the RFP by issuing an amendment in writing or by standard electronic means. The amendment shall be sent to all Consultants and will

be binding on them. The Consultants shall acknowledge receipt of all amendments in writing.

11.1.2 If the amendment is substantial, the Client may extend the proposal submission deadline to give the Consultants reasonable time to take an amendment into account in their Proposals.

11.2 The Consultant may submit a modified Proposal or a modification to any part of it at any time prior to the proposal submission deadline. No modifications to the Technical or Financial Proposal shall be accepted after the deadline.

12. Preparation of Proposals – Specific Considerations

12.1 While preparing the Proposal, the Consultant must give particular attention to the following:

12.2 **Associations between Consultants:** Consultants may associate with each other in the form of a joint venture or of a sub-consultancy agreement to complement their respective areas of expertise, strengthen the technical responsiveness of their proposals and make available bigger pools of experts, provide better approaches and methodologies, and, in some cases, offer lower prices. Such an association may be for the long term (independent of any particular assignment) or for a specific assignment. If the client employs an association in the form of a joint venture, the association shall appoint one of the firms to represent the association; all members of the joint venture, or their representative with a power of attorney, shall sign the contract. All members of the joint venture shall be jointly and severally liable for the entire assignment. Client shall not require consultants to form associations with any specific firm or group of firms or include any particular individual in their proposals, but may encourage association with qualified national firms.

12.3 The Client may indicate in the **Data Sheet** the estimated Key Professional' time input (expressed in person-month). This estimate is indicative and the Proposal shall be based on the Consultant's own estimates for the same.

12.4 Proposed Professional staff must have at least the experience indicated in the Data Sheet, preferably under conditions similar to those prevailing in the country of the assignment.

12.7 Consultant shall not propose alternative Key Professionals. Only one CV shall be submitted for each Key Professional position. Failure to comply with this requirement will make the Proposal non-responsive.

12.8 it is desirable that the majority of the key professional staff proposed be the permanent employees of the firm or have an extended and stable working relation with it.

13. Language

13.1 Documents to be issued by the Consultants as part of this

assignment must be in the English language. It is desirable that the firm's personnel have a working knowledge of the Employer's national language.

14. Bid Processing Fee

14.1 The Consultant shall furnish as part of its Proposal, a non refundable Bid Processing Fee of [INR 1, 00,000 (Indian Rupees One Lakh only or US \$ 1700)] in the form of a Demand Draft in favour of the "MMRD Fund" payable at Mumbai issued by the Indian Scheduled / Commercial Bank or Indian Branch of Foreign Bank in India (the "Bid Processing Fee"). Any Proposal not accompanied by the Bid Processing Fee shall be rejected by the Authority as non-responsive.

15. Technical Proposal Format and Content

15.1 The Technical Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive.

15.2 Consultants are required to submit a Full Technical Proposal (FTP). The Technical Proposal shall provide the information indicated in the following paras from (a) to (g) using the attached Standard Forms (Section 3).

- (a) (i) A brief description of the Consultants' organization and an outline of recent experience on assignments of a similar nature is required in Form TECH-2. For each assignment, the outline should indicate the names of Professional Key staff/Sub consultants who participated, duration of the assignment, contract amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultant was legally contracted by the Employer as a corporation venture. Assignments completed by individual Professional staff working privately or through other consulting firms cannot be claimed as the experience of the Consultant, or that of the Consultant's associates, but can be claimed by the Professional staff themselves in their CVs. Consultants should be prepared to substantiate the claimed experience if so requested by the MMRDA.
- (b) (i) Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/ effectiveness of the assignment; and on requirements facilities including: data to be provided by the MMRDA (Form TECH-3 of Section 3).
- (c) (i) A description of the approach, methodology work plan and transfer of knowledge and training for performing the assignment covering the following

subjects: technical approach and methodology, work plan, and organization and staffing schedule. Guidance on the content of this section of the Technical Proposals is provided under Form TECH-4 of Section 3. The work plan should be consistent with the Work Schedule (Form TECH-8 of Section 3) which will show in the form of a bar chart the timing proposed for each activity.

- (d) The list of the proposed Professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks (Form TECH-5 of Section 3).
- (e) Estimates of the total staff input (staff-months of foreign and local professionals) needed to carry out the assignment (Form TECH-7 of Section 3) supported by bar chart diagrams showing the time proposed for each professional staff team member.
- (f) CVs of the Professional staff recently signed by the staff themselves or by the authorized representative of the Professional Staff (Form TECH-6 of Section 3). Key information should include number of years working for the firm/entity, and degree of responsibility held in various assignments during the previous years as given in the Data sheet. CV's of Key professionals from associates & Sub-Consultants will not be considered for evaluation.
- (g) A detailed description of the proposed methodology, staffing, and monitoring of training, if the Data Sheet specifies training as a specific component of the assignment.

16. Financial Proposals

16.1 The Financial proposal should be a Lump-sum proposal exclusive of service tax which will be separately reimbursed, and shall be prepared using the attached Forms specified in Section 4. The Financial proposal should be submitted clearly indicating the total cost of the Consultancy in both figures and words, in Indian Rupees, and signed by the Applicant's Authorized Representative. In the event of any difference between figures and words, the amount indicated in words shall prevail. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall prevail.

16.2 The Financial Proposal shall take into account all expenses associated with the assignment. These shall normally cover remuneration for all the Key Professionals, Support Professionals, Support Staff, accommodation, air fare/ train fare, communication costs, local transportation costs, equipment, printing of documents, surveys/ investigations, etc. The total amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.

a. Taxes, Currency of Proposal & Payment.

i. The Financial Proposal shall take into account all the tax liabilities except service tax. Further, all payments shall be subject to deduction of taxes at source as per Applicable Laws.

ii. The Consultant shall express the price for its Services in the Indian Rupees (INR) only, No foreign currency fluctuation will be paid.

iii. Payment under the Contract shall be made in the Indian Rupees (INR) only.

17. Submission, Sealing, and Marking of Proposals

17.1 The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with Clause 9 (Documents Comprising Proposal). The submission can be done by hand only.

17.2 An authorized representative of the Consultant shall sign the original submission letters in the required format for both the Technical Proposal and Financial Proposal and shall initial all pages of both. The authorization shall be in the form of a written power of attorney attached to the Technical Proposal.

17.3 A Proposal submitted by a Joint Venture shall be signed by all members so as to be legally binding on all members, or by an authorized representative who has a written power of attorney signed by each member's authorized representative.

17.4 Form Tech-2 is required to submit as per details given in **DATA Sheet**. Duly filled and signed formats shall be placed inside of a sealed envelope-1 clearly marked "**Technical**

Proposal, “[Name of the Assignment]”, name and address of the Consultant, and with a warning **“DO NOT OPEN UNTIL 10TH FEBRUARY 2015, 1300 HRS .”** The firms/JV those who are not fulfilling the eligibility criteria under **Clause 6 of 6.1 (A) to (D)** considered ineligible, that their opened Technical proposal (envelope-1) and unopened Financial (envelope-2) will be returned after completing the selection process.

- 17.5 Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Proposal.
- 17.6 The signed Proposal shall be marked “ORIGINAL”, and its copy marked “COPY” as appropriate. The number of copies is indicated in the **Data Sheet**. All copies shall be made from the signed original. If there are discrepancies between the original and the copies, the original shall prevail.
- 17.7 The original and all the copies of the Technical Proposal shall be placed inside of a sealed envelope clearly marked **“TECHNICAL PROPOSAL”**, “[Name of the Assignment]”, name and address of the Consultant, and with a warning **“DO NOT OPEN UNTIL 10TH FEBRUARY 2015, 1300 HRS .”**
- 17.8 Similarly, the original Financial Proposal shall be placed inside of a sealed envelope clearly marked **“FINANCIAL PROPOSAL”** followed by the name of the assignment, , name and address of the Consultant, and with a warning **“DO NOT OPEN WITH THE TECHNICAL PROPOSAL.”**
- 17.9 The sealed envelopes containing “Technical Proposal” (ENVELOPE-1), and Financial Proposals (ENVELOPE-2) shall be placed into one outer envelope and sealed. This outer envelope shall bear the submission address, the name of the assignment, Consultant’s/JV name and the address, and shall be clearly marked **“DO NOT OPEN BEFORE [insert the time and date of the submission deadline indicated in the Data Sheet]”**.
- 17.10 If the envelopes and packages with the Proposal are not sealed and marked as required, the Client will assume no responsibility for the misplacement, loss, or premature opening of the Proposal.
- 17.11 The Proposal or its modifications must be sent to the address indicated in the Data Sheet and received by the Client no later than the deadline indicated in the Data Sheet, or any extension to this deadline. Any Proposal or its modification received by the Client after the deadline shall be declared late and rejected, and promptly returned unopened.
- 17.12 The MMRDA shall open the Technical Proposal immediately after the deadline for their submission. The

envelopes with the Financial Proposal shall remain sealed and securely stored.

- 17.13 The firm will have to submit a CD containing power point presentation of their complete technical proposal to MMRDA. The presentation shall cover in sufficient details, the appreciation of the project, methodology, Knowledge transfer and training, statement of the study covering approach and methodology for the study, proposed organized structure, work program and deliverables etc.

18. Confidentiality

- 18.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultant should not contact the Client on any matter related to its Technical and/or Financial Proposal. Information relating to the evaluation of Proposals and award recommendations shall not be disclosed to the Consultants who submitted the Proposals or to any other party not officially concerned with the process, until the Contract award.

- 18.2 Any attempt by Consultants or anyone on behalf of the Consultant to influence improperly the Client in the evaluation of the Proposals or Contract award decisions may result in the rejection of its Proposal.

- 18.3 Notwithstanding the above provisions, from the time of the Proposals' opening to the time of Contract award, if a Consultant wishes to contact the Client on any matter related to the selection process, it should do so only in writing.

19. Opening of Technical Proposals

- 19.1 The Client's evaluation committee shall conduct the opening of the Technical Proposals in the presence of the Consultants' authorized representatives who choose to attend (in person). The opening date, time and the address are stated in the Data Sheet. The envelopes with the Financial Proposal shall remain sealed and shall be securely stored until they are opened in accordance with Clause 22 of the ITC.

- 19.2 At the opening of the Technical Proposals the following shall be read out: (i) the name and the country of the Consultant or, in case of a Joint Venture, the name of the Joint Venture, the name of the lead member and the names and the countries of all members; (ii) the presence or absence of a duly sealed envelope with the Financial Proposal; (iii) any modifications to the Proposal submitted prior to proposal submission deadline; and (iv) any other information deemed appropriate or as indicated in the Data Sheet.

20. Proposal

- 20.1 Subject to provision of Clause 15.1 of the ITC, the evaluators of the Technical Proposals shall have no access to

Evaluation	the Financial Proposals until the technical evaluation is concluded.
	20.2 The Consultant is not permitted to alter or modify its Proposal in any way after the proposal submission deadline except as permitted under Clause 10.7 of this ITC. While evaluating the Proposals, the Client will conduct the evaluation solely on the basis of the submitted Technical and Financial Proposals.
21. Evaluation of Technical Proposals	21.1 Prior to evaluation of Proposals the MMRDA's appointed authority/Evaluation Committee will determine whether each proposal is responsive to the requirements of the RFP. The MMRDA may, at its sole discretion, reject any proposal that is not responsive hereunder. A proposal shall be considered responsive only if; a) The technical proposal is received in the form specified Section -3 of RFP. b) It is received by the proposed due date including any extension thereof pursuant to Clause 11.1 of ITC c) It is signed, sealed, bound together in spiral binding and marked as stipulated in clause 17 of ITC. d) It is accompanied by a valid Power of Attorney pursuant to Clause 17.3 of ITC. e) Providing Bid processing fee as given in Clause 14. f) It contains all the information (complete in all respect) as required in RFP. g) It does not contain any condition.
	21.2 The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria, and point system specified in the Data Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.
	21.3 MMRDA shall not be required to provide any explanation or justification in respect of technical evaluation of proposal. The decision of evaluation committee will be final and will be binding on all prospective consultants.
22. Public Opening and Evaluation of Financial	22.1 After the technical evaluation is completed the MMRDA shall inform the Consultants who have submitted proposals the technical scores obtained by their Technical Proposals, and

Proposals (For a. Quality- and Cost-Based Selection (QCBS))

shall notify those Consultants whose Proposals did not meet the minimum qualifying score or were considered non responsive to the RFP and TOR, that their Financial Proposals will be returned unopened after completing the selection process. The MMRDA shall simultaneously notify in writing Consultants that have secured the minimum qualifying score, the date, time and location for opening the Financial Proposals. Consultants' attendance at the opening of Financial Proposals is optional.

22.2 Financial Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. The name of the Consultants and the technical scores of the Consultants shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying score will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded.

22.3 In case of discrepancy between the words and figures, the former will prevail. In case of discrepancy between the Technical and Financial Proposals in indicating quantities of input, the Technical Proposal prevails.

22.4 In addition to the above, as indicated under para. 22.3, activities and items described in the Technical Proposal but not priced in the financial proposal, shall be assumed to be included in the prices of other activities.

22.5 In the case of QCBS, the total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions in the Data Sheet also as detailed under para 22.6.

22.6 The lowest evaluated Financial Proposal (F_m) will be given the maximum financial score (S_f) of 100 points. The financial scores (S_f) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (S_t) and financial (S_f) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; $T + P = 1$) indicated in the Data Sheet: $S = S_t \times T + S_f \times P$. ***The firm achieving the highest combined technical and financial score will be invited for negotiations.***

23.Negotiations & Award

23.1 Negotiations will be held at the address indicated in the Data Sheet with regard to the weaknesses if any in the selected proposal. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all Professional staff. Failure in satisfying such requirements may result in MMRDA proceeding to negotiate with the next-ranked Consultant. Representatives conducting negotiations

on behalf of the Consultant must have written authority to negotiate and conclude a Contract.

24. Technical negotiations

24.1 Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, and organization and staffing, & Knowledge transfer and training and any suggestions made by the Consultant to improve the Terms of Reference. The MMRDA and the Consultants will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract as “Description of Services”. Special attention will be paid to clearly defining the inputs and facilities required from the MMRDA to ensure satisfactory implementation of the assignment. MMRDA shall prepare minutes of negotiations which will be signed by the MMRDA and the Consultant.

25. Availability of Key Professional staff/experts

25.1 Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the MMRDA expects to negotiate a Contract on the basis of the Professional staff named in the Proposal. Before contract negotiations, the MMRDA will require assurances that the Professional staff will be actually available. The MMRDA will not consider substitutions during contract negotiations. If this is not the case and if it is established that Professional staff were offered in the proposal without confirming their availability, this result in the rejection of the Consultant’s Proposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.

26. Financial negotiations

26.1 The negotiations include the clarification of the Consultant’s tax liability in the Client’s country and how it should be reflected in the Contract.

26.2 Staff month rate negotiations shall not take place, except when the offered Key Professionals and support professionals’ remuneration rates are much higher than the typically charged rates by consultants in similar contracts. In such case, the Client may ask for clarifications and, if the fees are very high, ask to change the rates.

27. Conclusion of the negotiations

27.1 Negotiations will conclude with a review of the draft Contract. To complete negotiations the MMRDA and the Consultant will initial the agreed Contract. If negotiations fail, the MMRDA will invite the Consultant whose Proposal received the second highest score to negotiate a Contract.

28. Award of Contract

28.1 After completing negotiations the MMRDA shall award the Contract to the selected Consultant and promptly notify all Consultants who have submitted proposals. After Contract signature, the MMRDA shall return the Financial Proposals to the unsuccessful Consultants.

28.2 The Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet or such other date as may be mutually agreed.

28.3 If the Consultant fails to either sign the Agreement as specified in Clause 28.1 or commence the assignment as specified in Clause 28.2, the Authority may invite the Consultant whose proposal received the second highest score to negotiate a Contract.

Data SHEET

A. General	
ITC Clause Reference	
2.1	Name of the Client: Mumbai Metropolitan Region Development Authority. <hr/> Method of selection: <i>Quality and Cost Based Selection (QCBS).</i>
2.2	Financial Proposal to be submitted together with Technical Proposal: Yes Name of the assignment is: <i>Updation of Comprehensive Transportation Study for Mumbai Metropolitan Region (MMR).</i>
2.3	A pre-proposal conference will be held: Yes Date: 7th January, 2015 at 15:00 hrs. Address: 6th Floor, Committee Room, MMRDA Building, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051 The MMRDA's representative is: Mr. P R K Murthy Chief, Transport & Communications Division MMRDA Building, 8 th Floor, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051 Phone: +91-022-2659 4107, Fax: +91-022-2659 4182, e-mail:prkmurthy1960@yahoo.com;
2.4	The MMRDA will provide the following inputs and facilities: a) CTS reports, Data base, EMME software-Model. b) Past study reports mentioned in Attachments 5.3 of Section 5 shall be made available as a reference documents. c) Introduction letter to the concerned agencies for obtaining necessary information.
3.2	The MMRDA envisages the need for continuity for future work: No

<p>9.1</p>	<p>The Proposal shall comprise the following:(Outer Envelope)</p> <p><u>For FULL TECHNICAL PROPOSAL (FTP):</u></p> <p>1st Inner Envelope with the Technical Proposal:</p> <ol style="list-style-type: none"> (1) Power of Attorney to sign the Proposal (2) TECH-1 (3) TECH-2 (4) TECH-3 (5) TECH-4 (6) TECH-5 (7) TECH-6 (8) TECH-7 (9) TECH-8 (10)TECH-9 <p>AND</p> <p>2nd Inner Envelope with the Financial Proposal:</p> <ol style="list-style-type: none"> (1) FIN-1 (2) FIN-2 (3) FIN-3 (4) FIN-4 (5) FIN-5
<p>10.0</p>	<p>Proposals must remain valid for 180 days after the proposal submission date.</p>
<p>11.1</p>	<p>Clarifications may be requested no later than 2nd January 2015 prior to the submission deadline.</p> <p>The contact information for requesting clarifications is: Chief, T&C Division , 8th Floor, MMRDA Facsimile: 26594182 E-mail: prkmurthy1960@yahoo.com, cts2update@gmail.com</p>
<p>12.4</p>	<p>The estimated number of Key professional man-months for the assignment is: 30 man-months, The Key professionals should be supported by adequate number of support professionals.</p> <p>General Conditions to be fulfilled by Key Staff:</p> <ol style="list-style-type: none"> 1. Age of the key professionals should not be more than 65 years. 2. 30% of the proposed key staff should be the employee of the lead company. 3. Proposed key staff should be associated with the firm for minimum 2 years. 4. Each CVs of key professional should be signed by authority signatory and key professional.

The details of qualifications, technical experience, and estimated no of man-months for each key professional are given below:			
Sl. No.	Key Personnel	Specific Expertise	Estimated Man months.
1.	Sr. Transportation Planner/Engineer (Team Leader)	<ul style="list-style-type: none"> Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university. Completed at least 2 (two) CTS projects as Team Leader /Project Manager involving transport modeling, formulation of transportation strategy and investment programs covering all transport modes for major city with population more than 10 million. Shall have experience as a Team Leader/ in Transport Planning in assignments of similar magnitude & nature. Shall have experience in research & development and skill & knowledge transfer. Should have minimum 20 years experience in assignments of similar nature. 	12
2	Transport Modeller (International repute)	<ul style="list-style-type: none"> Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university Shall have experience as Urban Transport Modeller/Land-Use Transport Modeler in at least 3 (three) similar kind of assignments and in development of UTP model using State of Art software for major city with population more than 5 million. Shall have experience in imparting training & technology transfer. Should have minimum 15 years experience in assignments of similar nature. 	5
3	Public Transport (MRTS) planning Expert	<ul style="list-style-type: none"> Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university Shall have experience as planner for 3 (three) assignments having 100 km combined network in Rail/Road/Metro/Mono/LRT/BRTS planning of similar nature in major city 	4

		<p>with population more than 5 million.</p> <ul style="list-style-type: none"> • Shall have experience in preparing investment proposals for public transport system (Rail/Road/Metro/Mono/LRT/BRTS etc). • Should have minimum 15 years experience in assignments of similar nature 	
4	Highway/ Road Expert	<ul style="list-style-type: none"> • Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university • Shall have worked as Highway / Road Expert in at least in 3 (three) similar assignments having 50km combined network in City with population more than 5 million • Shall have experience in preparation of at least 5 feasibility studies for constructions of roads/bridges/flyovers preferably in urban areas. • Should have minimum 15 years experience in assignments of similar nature. 	3
5	Urban and Regional Planner	<ul style="list-style-type: none"> • Person shall have post graduate degree in Urban/Regional Planning from an recognised college or university • Shall have extensive experience in similar capacity in development of Land Use policies in conjunction with transport plans. • Shall have work experience in developing countries in at least 3 (three) similar assignments preferably in Growth Centers / Areas, Transit oriented Developments • Shall have experience in imparting training and technology • Should have minimum 15 years experience in assignments of similar nature. 	3
6	Transport Economist/ financial Expert	<ul style="list-style-type: none"> • The person shall have a Master Degree in Economics or equivalent. • Shall have worked as Transport Economist/financial expert in 5 (five) comprehensive transportation studies or Comprehensive Mobility plan for cities of with population more than 5 million • Experience in Economic/financial Analysis of various transport strategies and 	3

	<p>projects in similar kind of assignment in urban area</p> <ul style="list-style-type: none"> • Shall have experience in imparting training and skill transfer. • Should have minimum 15 years experience in assignments of similar nature. 	
Total Estimated Man months		30
15.2	The format of the Technical Proposal to be submitted is: <i>Full Technical Proposal (FTP)</i>	
15.2 (g)	Training is a specific component of this assignment: <i>Yes</i>	
3.6	This is lump sum contract hence reimbursable expenses will not be applicable. However, Information to be provided shall only be used to establish payments to the Consultant for possible additional services requested by the MMRDA and the Consultant need to provide the information as per Form FIN-3 of Section 4.	
16	<p>Amounts payable by the MMRDA to the Consultant under the contract to be subject to local taxation: <i>Yes</i></p> <p>If affirmative, the MMRDA will:</p> <p>(a) reimburse the Consultant ‘Service tax’ paid by the Consultant as per the applicable law</p> <p>Consultant, Sub-Consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable law, the amount of which is deemed to have been included in the Contract Price</p>	
16 (a) ii & iii.	<p>Consultant to state local cost in the national currency: <i>Yes</i></p> <p>Consultant shall express the price for its Services in the Indian Rupees(INR) only : <i>Yes</i></p> <p>Payment under the Contract shall be made by the Client in the Indian Rupees (INR) only: <i>Yes</i></p>	
17.5	Consultant must submit one Original proposal, and one copy (hardbound) and a soft copy (in CD format) of the Technical Proposal. Financial Proposal must be in Original only.	
17.6	<p>The Proposal submission address is:</p> <p><i>Mr. P R K Murthy</i> <i>Chief, Transport & Communications Division</i> <i>MMRDA Building, 8th Floor,</i> <i>Bandra Kurla Complex, Bandra (East), Mumbai – 400 051</i> <i>Phone: +91-022-2659 4107, Fax: +91-022-2659 4182,</i></p>	

	Proposals must be submitted not later than the following date and time: 10th February, 2015 by 13:00 hrs.																																																																
21.2	<p>Criteria, sub-criteria, and point system for the evaluation of Full Technical Proposals are:</p> <table border="0"> <thead> <tr> <th style="text-align: left;"><u>category</u></th> <th style="text-align: right;"><u>Points</u></th> </tr> </thead> <tbody> <tr> <td>(i) Experience of the Consultants</td> <td></td> </tr> <tr> <td> a) Experience of consultants under eligibility criteria (3)</td> <td></td> </tr> <tr> <td> b) Overall Experience for last 15 years in transport planning & traffic projects (5)</td> <td></td> </tr> <tr> <td> c) Experience in developing countries (2)</td> <td></td> </tr> <tr> <td>Total points for criterion (i) :</td> <td style="text-align: right;">[10]</td> </tr> <tr> <td>(ii) Adequacy of the proposed methodology and work plan in responding to the Terms of Reference:</td> <td></td> </tr> <tr> <td> a) Understanding of Scope of Services</td> <td style="text-align: right;">(5)</td> </tr> <tr> <td> b) Approach</td> <td style="text-align: right;">(5)</td> </tr> 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22.3	The single currency for price conversions is: Indian Rupees																																																																
22.6	The lowest evaluated Financial Proposal (Fm) is given the maximum financial score (Sf) of 100.																																																																

	<p>The formula for determining the financial scores is the following: $S_f = 100 \times F_m / F$, in which S_f is the financial score, F_m is the lowest price and F the price of the proposal under consideration.</p> <p>The weights given to the Technical and Financial Proposals are: $T = 0.8$ and $F = 0.2$</p>
23.1	<p>Expected date and address for contract negotiations: Date of negotiation meeting will be intimated later.</p> <p>Address: MMRDA Building, 6th Floor, Committee Room Bandra Kurla Complex, Bandra (East), Mumbai – 400 051 Phone: +91-022-2659 4161, Fax: +91-022-2659 4163, e-mail: cts2update@gmail.com; Web: http://www.mmrda.maharashtra.gov.in.</p>
28.3	<p>Expected date for commencement of consulting services Date: 15th March 2015 At: Mumbai</p>

Section 3. Technical Proposal - Standard Forms

[Comments in brackets [] provide guidance to the Consultants for the preparation of their Technical Proposals; they should not appear on the Technical Proposals to be submitted.]

Refer to Reference Paragraph 15.2 of the Data Sheet for format of Technical Proposal to be submitted, and paragraph 15.2 of Section 2 of the RFP for Standard Forms required and number of pages recommended.

Enevelope-1

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Form TECH-1: Technical Proposal Submission Form

[Location, Date]

To:

The Metropolitan Commissioner,
Mumbai Metropolitan Region Development Authority,
Bandra Kurla Complex, Bandra (E),
Mumbai 400051

Dear Sir:

We, the undersigned, offer to provide the consulting services for *[Insert title of assignment]* in accordance with your Request for Proposals dated *[Insert Date]* and our Proposal. *[Select appropriate wording depending on the selection method stated in the RFP: “We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope” or, if only a Technical Proposal is invited “We hereby are submitting our Proposal, which includes this Technical Proposal only in a sealed envelope.”]*.

{If the Consultant is a joint venture, insert the following: We are submitting our Proposal a joint venture with: {Insert a list with full name and the legal address of each member, and indicate the lead member}. We have attached a copy {insert: “of our letter of intent to form a joint venture” or, if a JV is already formed, “of the JV agreement”} signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

{OR

If the Consultant’s Proposal includes Sub-consultants, insert the following: We are submitting our Proposal with the following firms as Sub-consultants: {Insert a list with full name and address of each Sub-consultant.}

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification by the Client.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, Clause 10.1.
- (c) We have no conflict of interest in accordance with ITC 3. We meet the eligibility requirements as stated in ITC 6, and we confirm our understanding of our obligation to abide in this regard to corrupt and fraudulent practices as per ITC 5.
- (f) Except as stated in the Data Sheet, Clause 10.1, we undertake to negotiate a Contract on the basis of the proposed Key Experts. We accept that the substitution of Key Experts shall not be proposed as stated in ITC Clause 10 and ITC Clause 25.1 may lead to the termination of Contract negotiations.

- (g) Our Proposal is binding upon us and subject to any modifications resulting from the Contract negotiations.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the assignment no later than the date indicated in Clause 28.3 of the Data Sheet.

We understand that the Client is not bound to accept any Proposal that the Client receives.

We remain,

Yours sincerely,

Authorized Signature {In full and initials}: _____

Name and Title of Signatory: _____

Name of Consultant (company's name or JV's name):

In the capacity of: _____

Address: _____

Contact information (phone and e-mail): _____

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached}

Form TECH-3: Comments and Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be Provided by the Employer

A - On the Terms of Reference

Consultants suggestions and comments on ToR

B - Facilities by Employer (MMRDA)

[Comment on facilities to be provided by the MMRDA according to Paragraph Reference 1.4 of the Data Sheet including, data, etc.]

Form TECH-4: Description of Understanding of Scope of Services, Approach, Methodology and Work Plan/ Activity Schedule for Performing the Assignment

Technical approach, methodology, work plan and Transfer of Knowledge & Training are key components of the Technical Proposal. You are suggested to present your Technical Proposal (50 pages, inclusive of charts and diagrams) divided into the following five chapters:

- a) Understanding of Scope of Services;*
- b) Approach;*
- c) Methodology;*
- d) Work Plan/ Activity Schedule; and deliverables*
- e) Organization & Staffing and Staffing Schedule*

a) Understanding of Scope of Services. In this chapter you should explain your understanding of the objectives of the assignment and scope of services.

b) Approach. In this chapter you should explain your approach to the services for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them.

c) Methodology. In this chapter you should explain your Methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

d) Work Plan/Activity Schedule. In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Employer), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan/ Activity Schedule should be consistent with the Work Schedule/ Activity Schedule of Form TECH-8.

e) Organization & Staffing and Staffing Schedule. In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff. Present the manning schedule for Key Personnel and Support Personnel as per the understanding on the scope of services, approach and methodology. The Staffing Schedule should be consistent with the Staffing Schedule of Form TECH-7.

Form TECH-5: Team Composition and Task Assignments

SI No	Proposed Key Professional Staff				
	Name of Staff	Firm	Area of Expertise	Position Assigned	Task Assigned
1					
2					
n					
SI No	Proposed Support Professional Staff				
1					
2					
n					

Form TECH-6: Curriculum Vitae (CV) for Proposed Professional Staff

1. **Proposed Position** [*only one candidate shall be nominated for each position*]: _____
2. **Name of Firm** [*Insert name of firm proposing the staff*]: _____
3. **Name of Staff** [*Insert full name*]: _____
4. **Years with the Firm:** _____
5. **Present Position in the Firm:** _____
6. **Date of Birth:** _____ **Nationality:** _____
7. **Education** [*Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment*]: _____

8. **Membership in Professional Societies:** _____

9. **Other Training** [*Indicate significant training since degrees under 5 - Education were obtained*]: _____

10. **Countries of Work Experience:** [*List countries where staff has worked in the last ten years*]: _____

11. **Languages** [*For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing*]: _____

12. **Employment Record** [*Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.*]:
From [Year]: _____ To [Year]: _____
Employer: _____
Positions held: _____

<p>13. Detailed Tasks Assigned</p> <p><i>[List all tasks to be performed under this assignment]</i></p>	<p>14. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned(Key Qualifications)</p> <p><i>[Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 13.]</i></p> <p>Name of assignment or project: _____</p> <p>Year: _____</p> <p>Location: _____</p> <p>Employer: _____</p> <p>Main project features: _____</p> <p>Positions held: _____</p> <p>Activities performed: _____</p>
--	--

14. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

_____ Date: _____
[Signature of staff member or authorized representative of the staff] *Day/Month/Year*

Full name of authorized representative: _____

Note: CV of each individual should be signed in original by the respective staff member along with the date and endorsed by the authorized representative of the firm.

Form TECH-7: Staffing Schedule¹

	Name of Staff & Position	Staff input in month (in the form of a bar chart) ²												Total staff-month input
		1	2	3	4	5	6	7	8	9	10	11	12	
Key Professionals (Foreign)														
1														
												Subtotal		
Key Professionals (Local)														
1														
2														
3														
.														
N														
												Subtotal		
Support Professionals														
1														
2														
.														
n														
												Sub-total		
Support Staff														
1														
2														
.														
n														
												Sub-total		
												Total		

- 1 For Key Professional Staff (local & foreign) and Support Professional staff, the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).
- 2 Months are counted from the start of the assignment.

Full time input
 Part time input

Form TECH-8 Work Schedule/ Activity Schedule

N°	Activity ¹	Months ²												
		1	2	3	4	5	6	7	8	9	10	11	12	N
1														
2														
3														
4														
5														
n														

- 1 Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as Employer approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.
- 2 Duration of activities shall be indicated in the form of a bar chart.

B. Completion and Submission of Reports/ Deliverables (as per ToR)

Report No.	Description of the Deliverable	Months from effective date of the study	No of Hard & Soft Copies
1-1			
1-2			
1-3			
1-4			
1-5			
1-6			
1-7			
-			
-			
-			
-			

Form TECH-9 Knowledge Transfer and Training

Transfer of Knowledge & Training

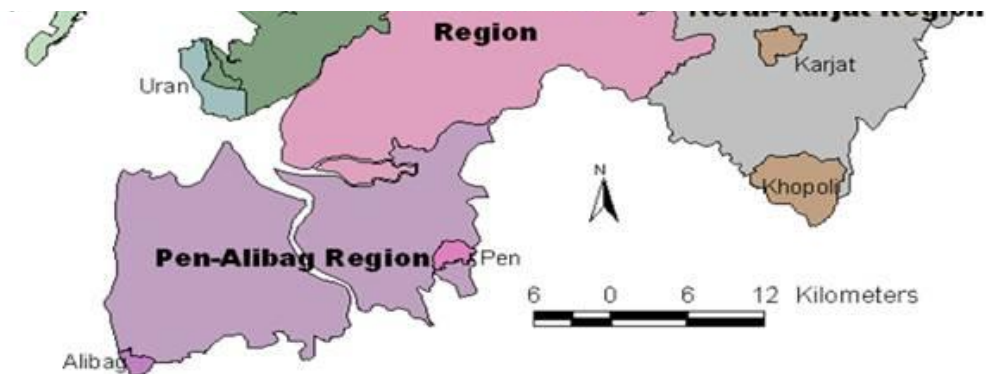
For this, consultant is required to describe past experience of imparting training & knowledge transfer on state of the art Travel Demand Planning Tools (UTP models). And also required to prepare proposed Methodology, contents of training course, and proposed composition of the training manual for the present assignment.

Section 4. Financial Proposal - Standard Forms

[Comments in brackets [] provide guidance to the Consultants for the preparation of their Financial Proposals; they should not appear on the Financial Proposals to be submitted.]

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided under Section 2.

Form FIN-1: Financial Proposal Submission Form	45
Form FIN-2: Summary of Costs	46
Form FIN-3: Breakdown of Staff-Month Cost (All inclusive) ¹	47
Form FIN-4: Reimbursebels (Local & Foreign)	479
Form FIN-5: Missslaneous	51



Form FIN-1: Financial Proposal Submission Form

[Location, Date]

To:

The Metropolitan Commissioner,
Mumbai Metropolitan Region Development Authority,
Bandra Kurla Complex, Bandra (E),
Mumbai 400051

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures¹]. This amount is inclusive of all the local taxes & duties, except applicable Service Tax which would be reimbursed by MMRDA. {Please note that all amounts shall be the same as in Form FIN-2}.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Paragraph Reference 10.2 of the Data Sheet.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

{For a joint venture, either all members shall sign or only the lead member/consultant, in which case the power of attorney to sign on behalf of all members shall be attached}

¹ Amounts must coincide with the ones indicated under Total Cost of Financial proposal in Form FIN-2.

Form FIN-2: Summary of Costs

SUMMARY OF COSTS

Sl. No.	Name of Activity	Amounts (INR)	
		In Figures	In Words
1.	Consultancy Fee inclusive of all the local taxes & duties, except applicable Service Tax which would be reimbursed by MMRDA.		

Note: The cost of the consultancy is the one given in the summary as above and payment is to be made as per payment schedule.

Price Component	Currency (INR)	Amount(s) in INR
Remuneration (a) Local (b) Foreign		
Reimbursable		
Miscellaneous Expenses		_____
Subtotal		

{Please note that above summary shall be the same as in Form FIN-1}.

Form FIN-3: Breakdown of Staff-Month Cost (All inclusive) ¹

Key Professional(Foreign)			
Sr No	Name ²	Position ³	Staff-month Cost in Indian Currency
1			
Key Professional(Local)			
Sr No	Name ²	Position ³	Staff-month Cost in Indian Currency
1			
2			
3			
4			
5			
Sr No	Support Professionals		
Sr No	Support Staff		

- 1 Form FIN-3 shall be filled in for the same Professional (Key Professionals and Support Professionals) and Support Staff listed in Form TECH-7.
- 2 Key Professional Staff (Foreign & Local) and Support Professionals should be indicated individually; Support Staff should be indicated per category (e.g.: draftsmen, clerical staff).
- 3 Positions of the Key Professional (Foreign, Local) & Support Professional Staff shall coincide with the ones indicated in Form TECH-5.

Form FIN-4: REIMBURSABLES (Local & Foreign)

A-LOCAL STAFF

Sl. No.	Item	Unit	Quantity	Unit Price	Rate (INR)	Amount (INR)
				Currency		
1)	Return Flights (Including Local Taxi Fare)					
1.1	Air Fare for Key Professionals					
	To and Fro	r/trip		INR		
2)	Miscellaneous Travel Expenses (including taxi fare)					
2.1	Train Fare (II AC) for Support Professionals (To and Fro)	r/trip		INR		
3)	Subsistence Allowance					
3.1	Key Professionals	days	-	INR		
3.2	Support Professionals	days		INR		
4)	Local Transportation Cost					
4.1	Vehicle Hire Charges includes cost for rental, drivers, operation, maintenance, repair, insurance etc.	v.months		INR		
5)	Office					
5.1	Rent	months		INR		
5.2	Office Maintenance	months		INR		
5.2	Office furniture and Equipment	Lumpsum		INR		
6)	Surveys(Workplace Surveys, Traffic and Transport related surveys and other relevant surveys):					
	1	Locations		INR		
	2					
	3					
	.					
	N					
7)	Secondary Data Collection and Mapping					
		Lumpsum				
	TOTAL					

B-FOREIGN STAFF

Sl. No.	Item	Unit	Quantity	Unit Price	Rate	Amount
				Indian Currency		
1)	Return Flights (Including Local Taxi Fare)					
1.1	Air Fare for Foreign Key Professionals					
	To and Fro	r/trip				
2)	Miscellaneous Travel Expenses (including taxi fare)					
2.1	Foreign Key Professionals (To and Fro)					
		r/trip				
3)	Subsistence Allowance					
3.1	Foreign Key Professionals					
		days	-			
4)	Local Transportation Cost					
4.1	Vehicle Hire Charges includes cost for rental, drivers, operation, maintenance, repair, insurance etc.					
		v.months				
	TOTAL					

Form FIN-5: Miscellaneous

Sl. No.	Item	Unit	Quantity	Unit Price		Amount (INR)
				Currency	Rate	
1)	Office Supplies, Utilities and Communication Costs between Foreign, within India etc. (telephone, telegram, etc.)	months		INR		
2)	Drafting, Reproduction of Reports:			INR		
3)	Training ^{\$} of MMRDA officials to Software Developers Country. i. Sr. Officials (Technical) ii. Middle Level (Technical)					
	TOTAL					

^{\$} Associated Trip Costs will be reimbursed based on actual.

Section 5. Terms of Reference (ToR)

Background

Mumbai Metropolitan Region (MMR) is one of the fastest growing metropolises in India. With a population of about 25 Million (Provisional data of census, 2011), it is ranked as the sixth largest Metropolitan Region in the world. This accounts for one fourth of the Maharashtra state's total population. Greater Mumbai is in effect the mother city and represents a significant engine of growth for the whole region, although, over time, other areas in MMR viz. Thane, Navi Mumbai, Vasai-Virar and Mira Bhayander have also experienced major economic growth. MMR has been seen as the land of opportunities for many people in India. From an overall planning, economic and transportation perspective, all the urbanized areas of the Region are functioning as a single entity with people travelling between municipal jurisdictions for work, business, education, shopping, recreation, tourism and personal needs.

MMRDA is a planning, development, coordinating and implementing agency established to ensure the balanced development combined with sustainable growth of the Mumbai Metropolitan Region (MMR). MMRDA's focus has been to make the MMR a primary destination of economic activities by promoting infrastructure development and improve the quality of life. In this context, the Authority has been instrumental in providing various infrastructure facilities in the region.

To improve the traffic and transportation facilities in Mumbai Metropolitan Region (MMR), MMRDA, under Mumbai Urban Transport Project (MUTP) and with the technical assistance of World Bank completed Comprehensive Transportation Study and Business Plan in July 2008. The main objectives of the study were as below:

1. Identify travel pattern of residents of MMR
2. Select, develop and operationalize an Urban Transport Planning model using state-of-the-art modeling techniques and software package, appropriate to the conditions and planning needs of MMR.
3. Assess the relevance of the 1994 strategy, identify the consequences of pursuing alternative transport strategies, and recommend/update a long-term comprehensive transport strategy for MMR
4. Identify for all modes a phased program of appropriate and affordable investments and policy proposals up to 2016; and

5. Help strengthen transport planning skills, and transfer all data, planning model/tools and knowledge obtained through the study to MMRDA and other agencies such as Mumbai Rail Vikas Corporation (MRVC), City & Industrial Development Corporation (CIDCO) and Municipal Corporation of Greater Mumbai (MCGM).

As a result of the study, transport infrastructure projects including 450 kms Metro network, 248 kms Suburban Railway Network and 1740 kms Highway network are identified and proposed as per requirements of MMR for the horizon period up to 2031, recommended funding options, institutional arrangements required for delivery of the proposed transport infrastructure, etc.

MMRDA accords high importance to the recommendations of the plans and studies made in CTS. MMRDA deeply desires to speed up the pace of implementation efforts. To focus on Project Preparatory Actions those are needed on priority basis to the projects which have to be implemented by 2016/2021 with specific attention to sustainability.

The main aim of the Technical Assistance Study was to assist and advise MMRDA in taking up measures and actions towards implementation of the most urgent recommendations of CTS in the most efficient way, through systematic planning and programming, to enable MMRDA to initiate the key elements of transportation system improvements immediately in MMR.

Therefore subsequently, after completion of CTS, MMRDA completed the Technical Assistance (TA) study covering the following components:

- **Component A** – Technical Assistance Services for Implementation of CTS Recommendations.
 - **Part 1:** CTS Implementation Plan and Identification of Growth Centres.
 - **Part 2:** Project Preparatory Works and Funding Mechanism.
- **Component B:** Technical Assistance and Advisory Services for Development of Growth Centers.
- **Component C:** Technical Assistance and Advisory Services for Implementation of Business Plan Proposals.

Technical Assistance study was concluded in June, 2012. In this Study, recommendations of transport network made in the CTS were reprioritized, identified the potential growth areas/centers, suggested different funding options and submitted the standard bid documents.

Transport planning is a dynamic and complex process, the urban system and the people inhabiting in it are not deterministic and are governed by random behavior. On the day to day life, Technology and Preferences of people is rapidly changing, plans and policies may not remain in the so in the coming years which always triggers the need of updating of the plans.

During last decade after Completion of CTS & TA study, MMR has been widely experiencing major developments which broadly embrace inclusion of 27 villages in notified area in kalyan & 51 villages in notified area in Bhivandi, Changed Land-use at Wadala, Navi Mumbai Airport Influence Notified Area (NAINA), SEZ at JnPT, changes in Development Plans etc and these developments are changing whole scenario of MMR. These planned/ongoing developments will affect on the proposed transport infrastructure.

In view of the above, MMRDA intends to update the CTS Travel Demand model and Plan with current Census 2011 and recent Economic Census in addition to above major developments.

2.0 Objectives and Scope of Work

The objectives of this assignment are

- To review & update CTS Travel Demand Models by using recent Census 2011 and Economic Census
- The travel demand for horizon years, 2021, 2031 & 2041
- To review, prioritize and prepare phase wise investments of the mass transport corridors, road networks within the MMR Region.

3.0 The detailed Scope of the Study is presented in the following tasks:

Task-1

Review of Earlier CTS Model and Assessment of Planning parameters for 2015 based on Census 2011 and recent Economic Census

CTS for MMR study was carried out during the period 2005-2008 for the base year 2005 and the population for the base year was estimated using the data from census 2001 and the same was forecasted for the horizon year 2031.

Now, the population data of current census 2011 is available. In line with this Consultant shall assess the population from census 2011 and employment from recent employment estimates & economic census for the **base year 2015** and update the population & employment allocations to 1030 TAZs as done in earlier CTS Study 2005.

Task -2

Data Collection: Through Secondary sources and identify additional primary surveys.

Consultant shall update the network, input parameters wherever appropriate for the year 2015 based on the secondary data sources and studies.

Consultant shall identify data requirement for calibration/validation of model including primary & secondary sources of data which may include inter alia and following,

Primary surveys for the purpose of model calibration and validation:-

- 1) Home Interview Survey
- 2) Classified Volume Count & OD Surveys
- 3) Speed flow Studies and Journey speed & delay studies
- 4) Screen Line survey
- 5) Mid Block Traffic Count Survey
- 6) Level Crossing Survey
- 7) Workplace based Survey
- 8) Operation characteristics off transport Modes (Bus, Rail , Metro, Mono etc)
- 9) And other relevant surveys as required

Secondary data collection:

Suburban Rail, Metro Rail & Monorail Passenger Survey data for assessment of rail passenger flows across the screen lines, Boarding & Alighting Surveys etc.

- Sample size for the Primary surveys shall be identified by the consultant to meet the objective of CTS updation for MMR.
- The traffic survey locations for the above would be same as that of identified and surveys carried out in 2005-2008 CTS for MMR.

Task-3

Review of CTS short-listed Land use scenarios and Updating/Modifying CTS recommended Land Use Scenario for MMR.

The consultants shall review the shortlisted land use scenarios developed during the CTS (2005) and update/modify the same for MMR. Consultant shall review the ongoing MMR Regional Plan in addition to the 2011 population and recent economic census and may consider alternate land use scenarios for future development in consultation with MMRDA.

Long-term transport development and management is a combination of policies (demand management, user charges etc) and physical improvements. Consultants in

consultation with MMRDA would finalize the criteria required to update/guide the long term strategy. As UTP model is strongly linked to land-use pattern, travel demand, transport strategy and systems, alternative feasible scenarios for horizon years should be checked and updated if needed. Consultants are required to forecast travel demand by mode using the calibrated UTP Model for the years 2021, 2031 and 2041

Task -4

Assessment of major developments & land use updation for the base year 2015

After completion of CTS & Technical Assistance study for MMR, some new major developments are emerging out which were not considered in earlier CTS. These developments include;

- 1) New land use developments at Wadala (New Cuffe Parade),
- 2) Proposed Developments in the Mumbai Airport (CSIA),
- 3) Navi Mumbai Metro rail Project Master Plan,
- 4) Navi Mumbai International Airport Regional Connectivity corridors (Metro, Sub Urban rail)
- 5) Metro network proposed by CIDCO
- 6) Modified alignments of Metro & Mono corridors
- 7) Changed fares of public transport, IPT modes & Road user cost
- 8) 27 villages in Kalyan & 51 villages in notified area in Bhivandi
- 9) Navi Mumbai Airport Influence Notified Area
- 10) Coastal Roads
- 11) Commencement of Bus Operations in municipal areas of MMR
- 12) Water Transport
- 13) R & R policy
- 14) Major developments in/around MMR
- 15) Certain changes in proposed land use policies by the Government.
- 16) Modification in MRTP Act
- 17) And other developments proposed in MMR by various ULB's etc.
- 18) Impact of New Housing & Industrial Policy by the Govt. of Maharashtra.

A Transport model must be a Land-use based to investigate the effect of both land use and transportation system on each other. Consultants shall update the network, input parameters and conduct necessary traffic surveys (OD, Screen line, Cordon surveys) in addition to the

stated preference Survey and on-board Public Transport Survey needed for updating the model and accordingly **calibrate & validate** the model through primary & secondary sources of data for base year 2015.

The data to be collected and updated should be strictly used for the purpose of Metropolitan Transport Strategic Planning.

Task-5

Assessment/updating of planning parameters, transport network updations for the horizon period upto 2021, 2031 and 2041 and network analysis.

Consultants shall **assess/update the planning parameters** (population and employment of 1030 TAZ level) for the horizon years 2021, 2031 and 2041 **based on** base year (2015) CTS updated calibrated model.

Considering the developments mentioned in the Task-4 and other remarkable land developments in MMR which would affect the travel demand, consultants shall update the proposed land-use policies and transport networks for the horizon year 2021, 2031 and 2041.

Task-6

Updating the CTS models and analysis using state-of-the-art Urban Transportation Planning Software

In order to have a most reliable result, it is very important to make sure that each of the four steps in model development is validated before taking the next steps. Various network validation techniques will be incorporated to check the accuracy of the link and node attributes.

Consultant shall conduct an applicable methodology and approach for **Calibration & Validation for all the four steps** (Trip generation, Trip distribution, Mode split and Traffic Assignment) used in Urban Transport planning process.

The consultants should demonstrate that the calibrated model reliable in replicating the current travel characteristics. Travel demand modeling process and analysis shall address inter-alia the existing transport modes as well as upcoming transit network of Metro, Mono Rail, water transport (if applicable) etc. Further the model should be able to incorporate introduction of New Transport systems with the corresponding speeds, fare, frequency etc.

At the traffic assignment step, which is last step, model estimated volume will be compared with the actual observed count. Traffic assignment should be done for daily traffic covering both morning & evening peak periods in travel demand modeling.

Consultant may choose software having characteristics similar to EMME-2 model for the purpose and which would use the same database. The model should reflect the Travel behavior of different income and social groups in a disaggregate fashion and should be sufficiently sensitive to test policy measures and physical improvements to the transportation network and services. The model should be calibrated & validated with respect to travel cost, travel time, flow, speeds and Trip length frequency distribution etc. For the purpose consultants shall propose a detailed methodology in consultation with MMRDA.

Task-7

Analysis & Estimation of Travel Demand for Updated Land Use scenario for different horizon periods 2021, 2031 & 2041.

Consultants shall estimate Travel Demand forecast based on the Updated/Modified Land Use scenario for all newly recommended Transport Infrastructure projects for MMR including Metro and Monorail Master Plan, Sub-urban rail Corridors etc. The Travel Demand forecast shall be carried out for horizon periods 2021, 2031 & 2041 and recommend the appropriate mass transportation and road networks etc. Consultant shall prepare short term (2021), Medium term (2031) & Long term (2041) network augmentation plans for public transport modes in MMR.

Task-8

Re-phasing, Re-prioritization & Cost assessment of CTS recommended transport infrastructure projects including all developments, for the horizon periods 2021, 2031 and 2041.

The consultant shall review, re-phase & re-prioritize CTS recommended transport infrastructure projects for MMR based on the Updated/Modified Land Use scenario and networks including Metro and Monorail Master Plans. On the basis of comprehensive evaluation of re-prioritized projects, consultant is expected to identify the investments in the respective projects and formulate a medium-Term & long-term phased Investment Programs for different horizon years.

Program should be focus on identification of capital investments to be made over the horizon year. Such programs shall include rail, road, road based Public Transport, mass transit system and water transport investment proposals etc. Consultant shall assess the impact/implications of various scenarios/strategies/fiscal policies on transport network.

Task-9

Fare Sensitivity Analysis of public transport modes in MMR.

At present, in MMR “Public Transportation” is being served by many Govt. Organizations viz., Central and Western Railway, BEST, Public Transport Undertakings operated by ULBs, metro and monorail by different operators. As part of this study, consultants shall carry out fare sensitivity analysis for different public transport systems in MMR region.

For the above purpose consultants has to conduct the stated preference survey with appropriate sample size. The methodology and assumptions for conducting the stated preference survey will be finalized in consultation with the client.

Consultant shall submit the detailed Working Paper/Report on adopted methodology for each above tasks.

4.0 SKILL AND TECHNOLOGY TRANSFER

As part of CTS, MMRDA had procured EMME-2 (Equilbre-Multimodal-Multimodal-Equilibrium) software and developed Travel Demand Models for the MMR region through the consultants. For the present assignment, consultants may use EMME-2 Travel Demand Modeling Software. MMRDA will provide in-house software package (EMME-2) and associated model data/banks to the successful/selected consultant. The Consultants, in their Financial Proposal shall account the cost of software packages other than EMME-2 Software or any other associated costs. At the end of the assignment/study the consultants shall hand over the software package, along with updated models/data banks and any other relevant data of the project to MMRDA, with proper documentation in hard and softcopies.

Consultant shall propose & organize suitable training program on EMME-2/proposed software for core technical personnel (5 persons) as finalized by MMRDA so as to have hands-on experience & interaction with software developers. The duration of training will be 4-5 weeks.

The Consultant shall also propose and organize suitable technical visits for the departments responsible for Transport Planning and Management, Implementation in cities of comparable size in developed countries for at least six senior professionals suggested by

MMRDA. It is also expected that workshops on the updating of Model will be conducted for concerned senior officials who are responsible for transport planning in MMR.

Consultants shall account the costs of above technical visit & training program inclusive of all associated costs (such as travel, per diem allowance, boarding/lodging, course fees etc) in their Financial Proposal.

5.0 PUBLIC CONSULTATION

Consultants are required to conduct public consultation/ULBs, BEST, WR, CR,MRVC, Traffic Police etc. prior to finalization of transportation strategy for MMR considering short, medium and long term Transportation network & investment Plans. For this purpose consultants are required to identify various stake holders directly & indirectly affected positively or negatively, by the transport strategy and investment.

Consultant shall prepare a plan for public consultation as a tool to guide MMRDA in involving project affected group and other stakeholders in the development of transport scenarios & strategies. Consultant shall prepare a comprehensive methodology and finalize in consultation with MMRDA.

6.0. DELIVERABLES

The total duration of the present assignment shall be **12 months**. The Consultant shall deliver the following deliverables (the “Deliverables”) during the course of this Consultancy. Time schedule for important Deliverables are given below:

Report No.	Description of the Deliverable	Effective Date of Study	No. of Copies
1	Inception Report	0.5 month	10+Soft copy
2	Report on ‘Data Collection: Through Secondary sources and primary surveys’	2.0 months	10+Soft copy
3	Report on ‘Review of Earlier CTS Model and Assessment of Planning parameters for 2015 based on Census 2011 and recent Economic Census’		
4	Report on ‘Review of CTS short-listed Land use scenarios and Updating/Modifying CTS recommended Land Use Scenario for MMR’.	3 months	10+Soft copy
5	Report on ‘Assessment of Major Developments & land use updation for the year 2015’	4 months	10+Soft copy
6	Report on ‘Updating of planning parameters, transport network updations for the horizon period upto 2021, 2031 and 2041 and network analysis’.	6 months	10+Soft copy
7	Report on ‘Updating the CTS models by validation and	8 months	10+Soft copy

Report No.	Description of the Deliverable	Effective Date of Study	No. of Copies
	analysis using state-of-the-art Urban Transportation Planning Software'		
8	Report on 'Estimation of Travel Demand for Updated Land Use scenario for different horizon periods 2021, 2031 & 2041'.	9 months	10+Soft copy
9	Report on 'Re-phasing, Re-prioritization & Cost assessment of CTS recommended transport infrastructure projects including all developments, for the horizon periods 2021, 2031 and 2041'.	11 months	10+Soft copy
10	Report on 'Fare Sensitivity/Demand Elasticity Analysis of public transport modes in MMR'.		10+Soft copy
11	Draft Final Report	11.5 months	10 + soft copy
12	Final Report +Executive Summary	12 months	50+Soft copy
13	Technical working papers on each task.		10 + soft copy
14	Monthly progress reports.		10 + soft copy

7.0 CONSULTANCY TEAM

The Consultant shall form a multi-disciplinary team (the “Consultancy Team”) for undertaking this assignment. The following positions of Key personnel/ professionals whose experience is briefly described in data sheet would be considered for evaluation of the Technical Proposal. The CVs of the Key personnel should be highlighted the relevant experience to be considered for the eligibility and evaluation.

General Conditions to be fulfilled by Key Staff:

1. Age of the key professionals should not be more than 65 years.
2. 30% of the proposed key staff should be the employee of the lead company.
3. The proposed key staff should be associated with the firm for minimum 2 years.
4. Each CVs of key professional should be signed by authority signatory and key professional.

List of Key Personnel/ professionals: Qualification, Experience and Minimum Time Requirement are given in table below:

Sl. No.	Key Personnel	Specific Expertise	Man months.
1.	Sr. Transportation Planner/Engineer (Team Leader)	<ul style="list-style-type: none"> • Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university. • Completed at least 2 (two) CTS projects as Team Leader /Project Manager involving transport modeling, formulation of transportation strategy and investment programs covering all transport modes for major city with population more than 5 million. • Shall have experience as a Team Leader/ in Transport Planning in assignments of similar magnitude & nature. • Shall have experience in research & development and skill & knowledge transfer. • Should have minimum 20 years experience in assignments of similar nature. 	12
2	Transport Modeller (International repute)	<ul style="list-style-type: none"> • Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an recognised college or university • Shall have experience as Urban Transport Modeller/Land-Use Transport Modeler in at least 3 (three) similar kind of assignments and in development of UTP model using State of Art software for major city with population 	5

Sl. No.	Key Personnel	Specific Expertise	Man months.
		<p>more than 5 million.</p> <ul style="list-style-type: none"> • Shall have experience in imparting training & technology transfer. • Should have minimum 15 years experience in assignments of similar nature. 	
3	Public Transport (MRTS) planning Expert	<ul style="list-style-type: none"> • Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university • Shall have experience as planner for 3 (three) assignments having 100 km combined network in Rail/Road/Metro/Mono/LRT/BRTS planning of similar nature in major city with population more than 5 million. • Shall have experience in preparing investment proposals for public transport systems (Rail/Road/Metro/ Mono/LRT/BRTS etc). • Should have minimum 15 years experience in assignments of similar nature 	4
4	Highway/ Road Expert	<ul style="list-style-type: none"> • Person shall have Master or Ph.D. degree in Transportation Engineering/Planning from an accredited college or university • Shall have worked as Highway / Road Expert in at least in 3 (three) similar assignments having 50km combined network in City with population more than 5 million • Shall have experience in preparation of at least 5 feasibility studies for constructions of roads/bridges/flyovers preferably in urban areas. • Should have minimum 15 years experience in assignments of similar nature. 	3
5	Urban and Regional Planner	<ul style="list-style-type: none"> • Person shall have post graduate degree in Urban/Regional Planning from an accredited college or university • Shall have extensive experience in similar capacity in development of Land Use policies in conjunction with transport plans. • Shall have work experience in developing countries in at least 3 (three) similar assignments preferably in Growth Centers / Areas, Transit oriented Developments 	3

Sl. No.	Key Personnel	Specific Expertise	Man months.
		<ul style="list-style-type: none"> • Shall have experience in imparting training and technology • Should have minimum 15 years experience in assignments of similar nature. 	
6	Transport Economist/ financial Expert	<ul style="list-style-type: none"> • The person shall have a Master Degree in Economics or equivalent. • Shall have worked as Transport Economist/financial expert in 5 (five) comprehensive transportation studies or Comprehensive Mobility plan for cities of with population more than 5 million • Experience in Economic/financial Analysis of various transport strategies and projects in similar kind of assignment in urban area • Shall have experience in imparting training and skill transfer. • Should have minimum 15 years experience in assignments of similar nature. 	3
Total Estimated Man months			30

The Team Leader shall be available in Mumbai throughout the study period. In addition to the above Key Personnel/ Key Professionals, Consultants shall deploy the Support Professionals having relevant educational qualifications, adequate expertise and experience to support the Key Personnel/ Key Professionals in delivering the scope of services. Consultants shall assess and indicate the support staff man-months.

Consultants need to provide brief CVs (educational qualifications, expertise and experience) for the above Support Professional staff in summary tabular form. However, the same will not be considered for evaluation of the Technical Proposal.

8.0 Administration

- The Consultant will work in close liaison with MMRDA. MMRDA will constitute a Technical Advisory Committee (TAC) for the purpose of technical guidance to the Consultants and monitoring of the study.
- The Chief, Transport & Communication Division of the Authority will be responsible for the overall coordination. He will play a coordinating role in dissemination of the Consultant's outputs, facilitating discussions, and ensuring required reactions and responses to the Consultant.

- The Consultant will make a presentation on all the submitted reports for discussion to the Technical Advisory Committee. The Consultant is required to prepare and submit a monthly progress report that includes, inter alia, general progress to date; data and reports obtained and reviewed, conclusions to date, if any; concerns about availability of, or access to, data, analyses, reports; The Consultants' work on the TOR tasks should continue while the report is under consideration and is being discussed.
- Regular communication with the Chief, Transport & Communications Division and any other officer designated by him is required in addition to all key communications. This may take the form of telephone/ teleconferencing, emails, faxes, and occasional meetings.
- The Deliverables will be submitted as per schedule provided in this RFP.

9.0. DATA MADE AVAILABLE BY THE AUTHORITY

MMRDA shall allow the Consultants for referring major study reports relevant for the study. Available data as may be required by the Consultant will be provided by the MMRDA on request, if available. The Consultant's team shall interact with staff of the MMRDA in making use of CTS for MMR planning parameters and models & In-house software package (EMME-2) for the study.

10.0. COMPLETION OF SERVICES

All the study outputs including primary and secondary data shall be compiled, classified, documented and submitted by the Consultant to the MMRDA in soft and hard copy form apart from the reports indicated in the Deliverables. The study outputs shall remain the property of the MMRDA and shall not be used for any purpose other than that intended under these Terms of Reference without the written permission. Any equipment, computers purchased for the assignment shall be handover to authority on completion of the services.

11.0 PAYMENT SCHEDULE

No.	Description of the Deliverable	Reporting Month	No. of Hard and Soft Copies	% of Payment
1	Inception Report	0.5 month	10+Soft copy	5%
2	Report on 'Data Collection: Through Secondary sources and primary surveys'	2 months	10+Soft copy	15%
3	Report on 'Review of Earlier CTS Model and Assessment of Planning parameters for 2015 based on Census 2011 and recent Economic Census'			
4	Report on 'Review of CTS short-listed Land use scenarios and Updating/Modifying CTS recommended Land Use Scenario for MMR'.	3 months	10+Soft copy	10%
5	Report on 'Assessment of Major Developments & land use updation for the year 2015'	4 months	10+Soft copy	10%
6	Report on 'Updating of planning parameters, transport network updations for the horizon period upto 2021, 2031 and 2041 and network analysis'.	6 months	10+Soft copy	10%
7	Report on 'Updating the CTS models by validation and analysis using state-of-the-art Urban Transportation Planning Software'	8 months	10+Soft copy	10%
8	Report on 'Estimation of Travel Demand for Updated Land Use scenario for different horizon periods 2021, 2031 & 2041'.	9 months	10+Soft copy	10%
9	Report on 'Re-phasing, Re-prioritization & Cost assessment of CTS recommended transport infrastructure projects including all developments, for the horizon periods 2021, 2031 and 2041'.	11 months	10+Soft copy	10%
10	Report on 'Fare Sensitivity/Demand Elasticity Analysis of public transport modes in MMR'.		10+Soft copy	10%
11	Draft Final Report	11.5 months	10 + soft copy	10%
12	Final Report +Executive Summary	12 months	50+Soft copy	
13	Technical working papers on each task.		10 + soft copy	
14	Monthly progress reports.		10 + soft copy	

* Payment of each deliverable shall be released after the approval of the respective delivery.

Description of Mumbai Metropolitan Region (MMR)

1. Mumbai Metropolitan Region Development Authority (MMRDA) was established under the MMRDA Act 1974 primarily as planning and development authority for Mumbai Metropolitan Region (MMR) whose boundaries are defined by the said Act and its subsequent amendment. The present boundaries of MMR encompass a total area of 4,355 sq. km. MMR consists of the following revenue units :

- Mumbai City District
- Mumbai Suburban District
- Part of Thane District (comprising Thane, Kalyan, Bhiwandi and Ambernath Tehsils)
- Part of Vasai Tehsil
- Part of Raigad District
- Uran Tehsil; and
- Part of Panvel, Karjat, Khalapur, Pen and Alibaug Tehsils

2. MMR is highly urbanized area with more than 90% of the total population of 18.8 million in 2001 is concentrated in cities and towns. The urban population is however confined to 8 Municipal Corporations, 11 Municipal Councils and 10 Non Municipal Towns. Total area under these urban units is about 1,500 sq. km. In the rest of the region, about 1 million population is spread over 950 village settlements. The demographic census gives population and worker details according to 88 census sections in Greater Mumbai, for suitably defined wards in other urban centres and for village as a whole in MMR.

3. The sanctioned Regional Plan for MMR 1996-2011, specifies the land-use for different parts of the region. In this plan, urban development is categorized under two classes namely, U1 and U2 zone. U1 zone, constituting 19% of the total land denotes intensive and high density urban development, whereas, U2 zone, constituting 5% of the total envisages relatively low density urban development. U1 zone largely covers the existing Municipal Corporations, Municipal Councils and a few Non Municipal Towns. U2 zone is generally showing the possible outgrowth of the cities and towns. Further, 3% of the land is placed under Industrial Zone, 1% under Port and Airport and 6% under Recreation & Tourism Development Zone and National Park. The rest of the 66% of land-use is distributed among Forest Zone (23%), Green Zone (39%), Coastal Wetland (3%) and Water body (1%). The Regional Plan also provides estimates of population and its distribution in different parts of MMR for the year 2011. Corresponding projections for the year 2021 and 2031 are also made by MMRDA.

4. Under the notification dated 4th February, 2003, Matheran Municipal Council area and the surrounding region are declared as Eco-Sensitive Zone (ESZ) imposing restriction on industries and development activities in the said zone. The ESZ covers an area of 215 sq. Km. area and its Zonal Master Plan is to be prepared to guide the development.

5. Dronagiri Node in Navi Mumbai developed by CIDCO is designated as a Special Economic Zones (SEZ) and its plan is currently under preparation. There is a proposal to establish domestic/international airport near Panvel town in Navi Mumbai.

6. The Region has a fairly well developed rail and road network. The rail network consists of suburban and main line sections. The rail network connects most of the important urban areas. The road network comprises Expressways, National Highways, State Highways, Major District Roads, other District Roads and Village Roads. The village settlements are largely served by the road network and state road bus transport services.

Comprehensive Transportation Study for Mumbai Metropolitan Region (MMR)

The Comprehensive Transportation Study (CTS) for MMR has been carried out by MMRDA during 2005-2008 for assessment of transport infrastructure requirements for the horizon period upto 2031. The Comprehensive Transportation Study (CTS) for the Mumbai Metropolitan Region (MMR) or **T R A N S F O R M** (Transportation Study for the region of Mumbai) articulates a vision for MMR's future transportation as a seamless, integrated system, in which commuters can make their journeys throughout the region safely and conveniently by various modes of transport with strong emphasis towards public transit. **T R A N S F O R M** outlines long term (2031), medium term (2021) and short term (2016) transportation strategies and guidance necessary to attain this vision. **T R A N S F O R M** is an initiation from World Bank and MMRDA to formulate comprehensive transportation strategy for the metropolitan region. MMRDA with technical assistance from World Bank under MUTP embarked on **T R A N S F O R M**. It has been over 25 years since the last comprehensive regional transport study is undertaken for the region. This study has provided insight to the current challenges of commuting in MMR, addressed the issues and prepared an infrastructure and investment plan for the next few decades.

T R A N S F O R M stresses the need for MMRDA's continuing efforts and expanding on its commitment recognizing the varying needs and priorities of different transportation users, in developing MMR's major transportation infrastructure. **T R A N S F O R M** by recognising the significance of transport for the economic growth and social well-being of MMR, proposes developing integrated multi-modal transportation system. It advocates focusing on the, development of metro corridors throughout the region, optimising and expanding the suburban rail network and reducing sub-human crowding conditions and providing an integrated network of access controlled highways. **T R A N S F O R M** strongly supports increased cooperation and coordination by all the transportation providers in the MMR and emphasizes the need to be sensitive to the people and environment. Suggestions are made for more immediate solutions to current mobility problems to improve the existing transportation network's efficiency, reliability, and cost effectiveness that are currently impairing the region's prosperity and well-being of its citizens. It advocates increased participation in transportation decision making by regional and local authorities and public. It encourages Public Private Partnerships (PPP) that can help to meet the travel investment needs of the future.

Addressing the above, the **T R A N S F O R M** plan formulation work is undertaken and salient features of the study is presented in the following sections. Some of the salient features of the proposed short and medium term plans and their extent by 2031 are described below:

- The length of metro network for the horizon year 2016 and 2021 is 208 km and 318 km respectively, which further expands to 435 km by 2031. Most of the metro network proposed by 2016 is located in MCGM and Navi Mumbai. The metro lines considered are of twin track, one track per direction.
- Total length of new suburban rail network is approximately 248 km. The majority of the new suburban rail network corridors are required by 2016, with minimal addition thereafter. Only twin track corridors have been proposed, with one track per direction.
- The highway network, which includes higher order transport network (fully access controlled) and arterial corridors for the horizon year 2016 and 2021 is 982 km and 1,229 km respectively. The 2021 network is further required to be developed and augmented by another 510 km by 2031 to be extending over 1,740 km. It is recommended that, all major sea-links and bridges will have the lane configuration reflecting 2031 requirements. Most of the higher order transport network has been considered to have at least eight (8) lane divided main carriageway by 2031. However, for 2021/2016 they shall be of six (6) lane divided carriageway only.
- Along some of these corridors, Exclusive Bus Lanes (EBL) have been proposed for the horizon years where the travel demands on parallel metro corridors were insufficient to justify investments in a metro line for the time

horizons being considered. The approximate length of EBL network proposed by 2016, 2021 and 2031 is 165 km, 112 km and 79 km respectively.

- Based on studies made by other agencies provisions have been made in the budgets for Passenger Water Transport (PWT) on the west coast, east coast and on other routes. The proposed investment by the horizon year 2016 is about INR 480 crores.
- Inter-State bus terminals, inter-city/ intra regional bus stations, major/ minor truck terminals, inter-city rail terminals have been proposed as part of transport plan for the horizon years 2016 (INR 1126 crores), 2021 (INR 2038 crores) and 2031 (INR 3040 crores).
- Road safety measures, traffic management measures are being recommended. These measures include intersection improvements, flyovers/ interchanges, pedestrian facilities (FOBs and Subways), ROB/ RUBs, footpath improvements, traffic signal installation/ Area Traffic Control Systems, etc. An approx. investment needed for these is assessed to be Rs 5860 crores by 2016.
- Along the entire higher order road/highway network and on proposed new and upgraded arterial roads it is recommended to have footpath facilities on either side with guard rails (typically of to 2.0 m width). This is for safe movement of pedestrians. The cost for footpaths is included in the roadway costs.
- Safety measures within the existing suburban railway stations like FOBs for non-rail commuters, provision of guard rails between the tracks to avoid crossing of tracks by rail commuters, etc. have been proposed. Budget provisions for these improvements are INR 480 crores.
- Implementation of integrated fare structure and Common Ticketing among existing as well as the proposed public transport systems in MMR has been recommended. The modality of implementation could be decided through separate consultancy.
- The total cost of transport network for the horizon year 2031, 2021 and 2016 is INR 2.07, INR 1.64 and Rs 1.34 lakh crores respectively at 2005-06 prices which is approximately US\$ 50.41, US\$ 40.10 and 32.73 billions respectively.
- Alternative institutional arrangements have been examined such as “Reinforcing the coordinating role of MMRDA” and “Establishing a new Unified Metropolitan Transport Authority (UMTA)”.
- The total infrastructure investment is proposed to be funded by 47% by private investment in PPP format, 12% by borrowings, 13% by SPV and 27% by Government own funds. This allows enough cushion to allow for uncertainties.

Proposed transport network for the horizon year 2031, transit and highway are presented in Figure 1 and Figure 2 respectively. **T R A N S F O R M** recommendations as described in earlier sections comprise short, medium and long term strategies. Plan period is of 25 years i.e. up to 2031. The plan is large and investments needed are massive. The cumulative investment requirements are – (a) for short term (up to 2016) about INR 1,340 billion; (b) for medium term (up to 2021) about INR 1,640 billion and (c) for the long term (up to 2031) about INR 2,080 billion. Component wise details are presented in Table 1. This means for full implementation of **T R A N S F O R M** recommendations, about INR 2,080 billion are needed. The noteworthy fact is that short term needs are 65% of total investments. Additionally, INR 300 billion are needed during 2016-21. This is on due to serious deficiencies to meet current demand. Investments on transit proposals including bus system is about 70% of the total investments which is substantial.

Table 1: Cost Estimates of Transport Infrastructure in Mumbai Metropolitan Region@ 2009-10 prices (in million)

Component	Cumulative Investment Requirement (INR million)			in % of Total		
	Up to 2016	Up to 2021	Up to 2031	Up to 2016	Up to 2021	Up to 2031
Metro System	609,020	837,000	1,083,730	45.4%	50.9%	52.1%
Sub-Urban Railway System	283,620	291,130	314,180	21.1%	17.7%	15.1%
Highway System	192,970	302,760	346,950	14.4%	18.4%	16.7%
Highway Corridors with EBL	114,230	20,210	16,950	8.5%	1.2%	0.8%
Arterial Corridors and Traffic Management Measures	115,130	145,600	239,750	8.6%	8.9%	11.5%
Bus System	11,040	21,500	42,800	0.8%	1.3%	2.1%
Passenger Water Transport	4,800	4,800	4,800	0.4%	0.3%	0.2%
Terminals: Truck, Inter-Bus and Rail	11,260	20,380	30,400	0.8%	1.2%	1.5%

Component	Cumulative Investment Requirement (INR million)			in % of Total		
	Up to 2016	Up to 2021	Up to 2031	Up to 2016	Up to 2021	Up to 2031
Total	1,342,080	1,643,380	2,079,560	100.0%	100.0%	100.0%

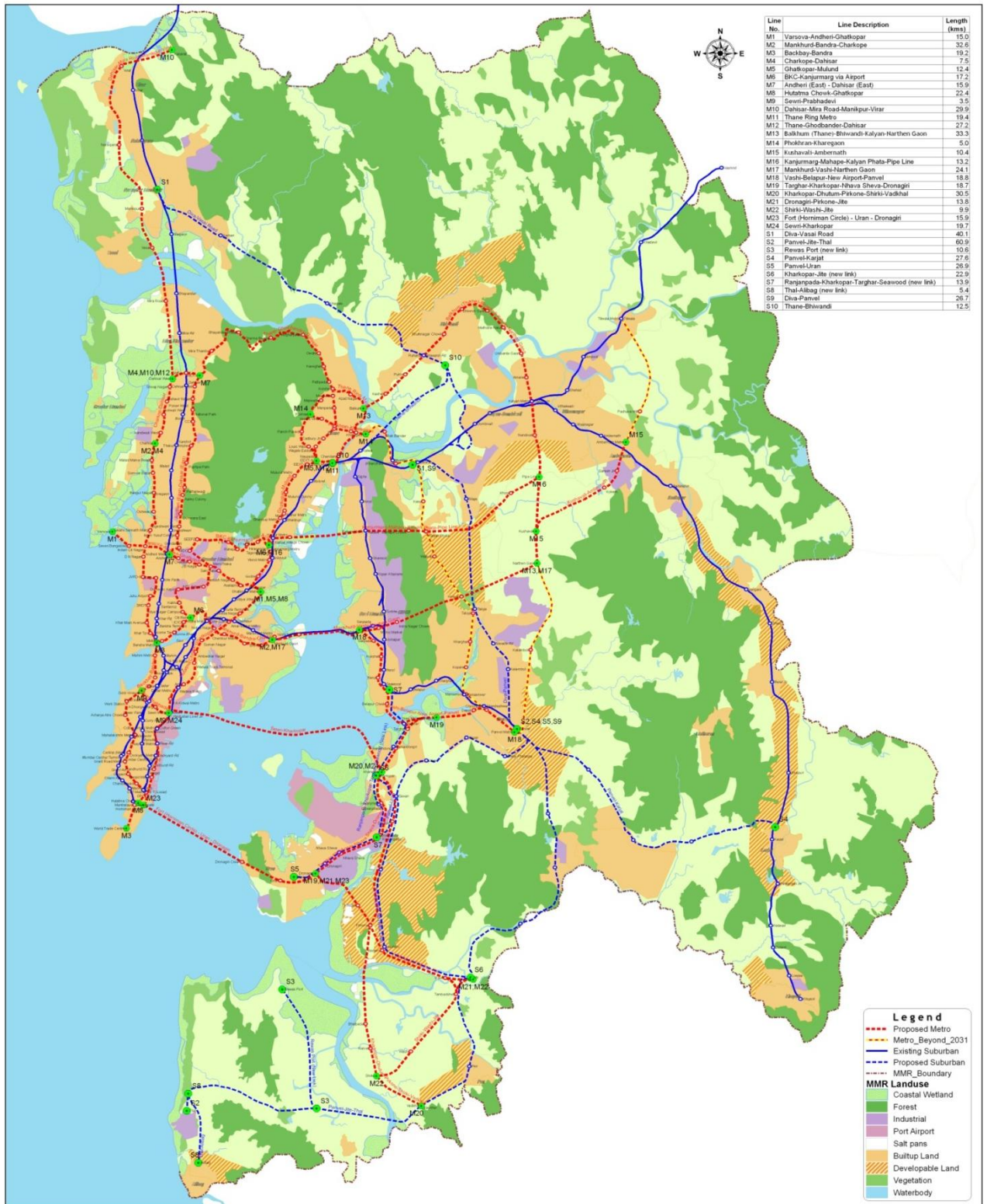


Figure 1: Recommended Transport Network for Horizon Year 2031: Transit

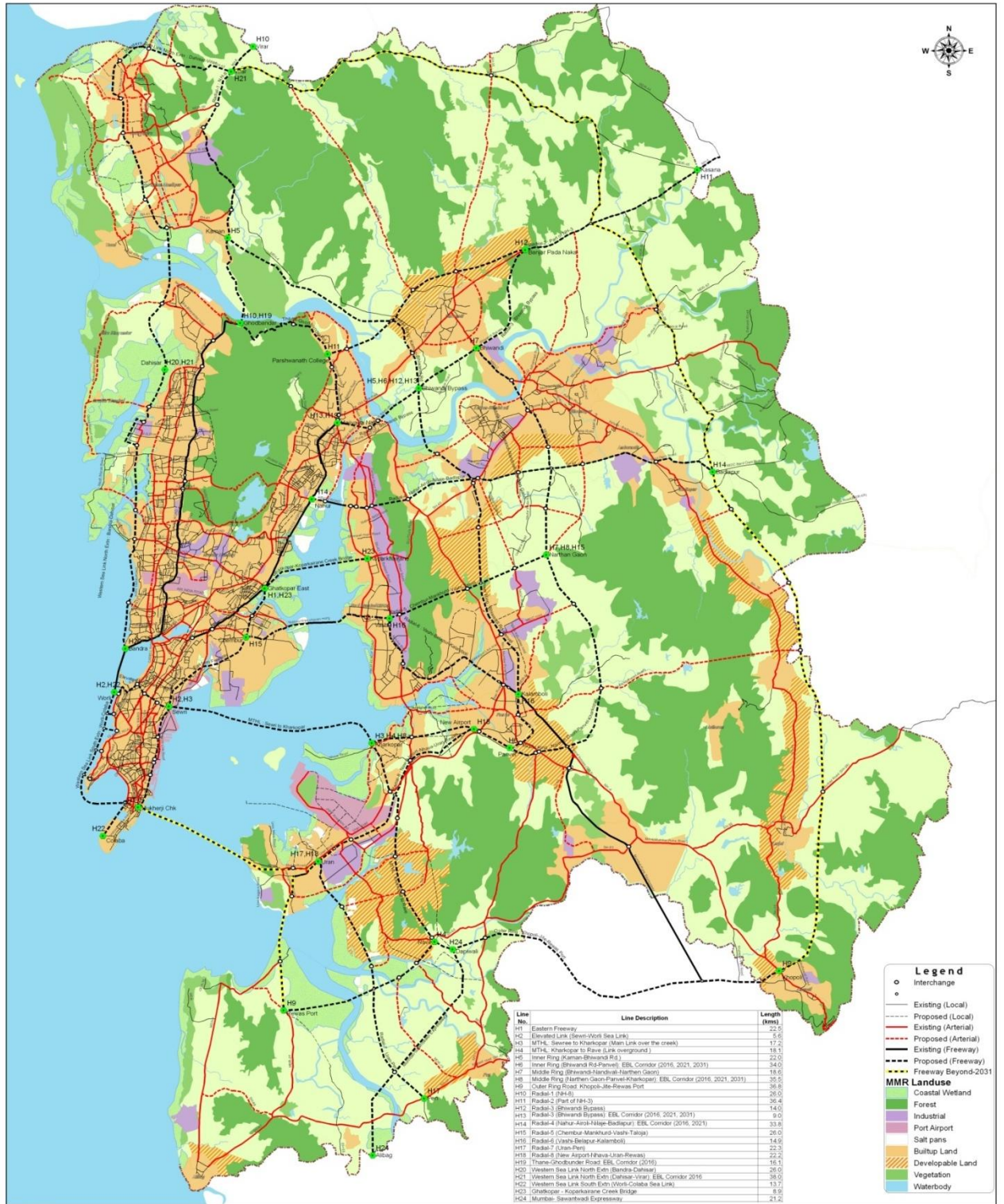


Figure 2: Recommended Transport Network for Horizon Year 2031: Highway

Attachment 5.3

Study reports available with MMRDA

Sr. No.	Name of the Report
1	Comprehensive Transportation Study, 2008
2	Mumbai Metro Master Plan
3	Strategic Monorail Master Plan
4	Technical Assistance Study Report
5	Regional & Local Transport connectivity plan for NMIA
6	MTHL
7	DPRs of Metro corridors
8	DPRs of Roads in MMR
9	Report on Multi Modal Corridor

Section 6. Form of Contract (Draft)

Consultants' Services

Lump-Sum

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Draft CONTRACT FOR CONSULTANTS' SERVICES

Lump-Sum

between

[name of the Employer]

and

[name of the Consultant]

Dated: _____

I. Form of Contract

LUMP-SUM

(Text in brackets [] is optional; all notes should be deleted in final text)

This CONTRACT (hereinafter called the “Contract”) is made the [day] day of the month of [month], [year], between, on the one hand, [name of Employer] (hereinafter called the “Employer”) and, on the other hand, [name of Consultant] (hereinafter called the “Consultant”).

[*Note: If the Consultant consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Employer”) and, on the other hand, a joint venture/consortium consisting of the following entities, each of which will be jointly and severally liable to the Employer for all the Consultant’s obligations under this Contract, namely, [name of Consultant] and [name of Consultant] (hereinafter called the “Consultant”).*]

WHEREAS

- (a) the Employer has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the “Services”);
- (b) the Consultant, having represented to the Employer that it has the required professional skills, and personnel and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract;
 - (b) The Special Conditions of Contract;
 - (c) The following Appendices:
 - Appendix A: Scope of Work
 - Appendix B: Work Plan and Methodology
 - Appendix C: Key Personnel
 - Appendix D: Description of Services
 - Appendix E: Breakdown of Contract Price in Foreign Currency
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 - Appendix N: Form of Advance Payment Guarantee (if applicable)
2. The mutual rights and obligations of the Employer and the Consultant shall be as set forth in the Contract, in particular:

- (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
- (b) the Employer shall make payments to the Consultants in accordance with the provisions of the Contract.

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

For and on behalf of *[name of Employer]*

[Authorized Representative]

For and on behalf of *[name of Consultant]*

[Authorized Representative]

[Note: If the Consultant consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner:]

For and on behalf of each of the Members of the Consultant

[name of member]

[Authorized Representative]

[name of member]

[Authorized Representative]

II. General Conditions of Contract

1. GENERAL PROVISIONS

- 1.1 Definitions** Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:
- (a) “Applicable Law” means the laws and any other instruments having the force of law in India, as they may be issued and in force from time to time.
 - (b) “Employer” means the Mumbai Metropolitan Region Development Agency (MMRDA)
 - (c) “Consultant” means any private or public entity that will provide the Services to the Employer under the Contract.
 - (d) “Contract” means the Contract signed by the Parties and all the attached documents listed in its Clause 1, that is these General Conditions (GC), the Special Conditions (SC), and the Appendices.
 - (e) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
 - (f) “Effective Date” means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1.
 - (g) “Foreign Currency” means any currency other than the currency of the Employer’s country.
 - (h) “GC” means these General Conditions of Contract.
 - (i) “Government” means the Government of Maharashtra.
 - (j) “Local Currency” means the Indian Rupees.
 - (k) “Member” means any of the entities that make up the joint venture/consortium, and “Members” means all these entities.
 - (l) “Party” means the Employer or the Consultant, as the case may be, and “Parties” means both of them.
 - (m) “Personnel” means persons hired by the Consultant or by any Sub-Consultants and assigned to the performance of the Services or any part thereof.
 - (n) “SC” means the Special Conditions of Contract by which the GC may be amended or supplemented.
 - (o) “Services” means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
 - (p) “Sub-Consultants” means any person or entity to whom/which the Consultant subcontracts any part of the Services.
 - (q) “In writing” means communicated in written form with proof of

receipt.

- 1.2 Law Governing Contract** This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
- 1.3 Language** This Contract has been executed in the language specified in the SC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
- 1.4 Notices**
- 1.4.1** Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SC.
- 1.4.2** A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SC.
- 1.5 Location** The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, whether in India or elsewhere, as the Employer may approve.
- 1.6 Authority of Member in Charge** In case the Consultant consists of a joint venture/ consortium of more than one entity, the Members hereby authorize the entity specified in the SC to act on their behalf in exercising all the Consultant's rights and obligations towards the Employer under this Contract, including without limitation the receiving of instructions and payments from the Employer.
- 1.7 Authorized Representatives** Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Employer or the Consultant may be taken or executed by the officials specified in the SC.

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- 1.8 Taxes and Duties** Unless otherwise specified in SC, the Consultant, Sub-Consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable, the amount of which is deemed to have been included in the Contract Price.
- 1.9 Fraud and Corruption** If the Employer determines that the Consultant and/or its Personnel, sub-contractors, sub-consultants, services providers and suppliers has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Consultant, terminate the Consultant's employment under the Contract, and the provisions of Clause 2 shall apply as if such expulsion had been made under Sub-Clause 2.6.1(c).
- Should any personnel of the Consultant be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Contract, then that personnel shall be removed in accordance with Sub-Clause 4.2.
- 1.9.1 Definitions** For the purposes of this Sub-Clause, the terms set-forth below are defined as follows:
- (i) “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under Clause 3.8.

- 1.9.2 Measures to be Taken** (vi) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan were engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to remedy the situation;
- (vii) will sanction a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a MMRDA's contract if it at any time determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a MMRDA contract;
- 1.9.3 Commissions and Fees** The Employer will require the successful Consultants to disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the selection process or execution of the contract. The information disclosed must include at least the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee.

2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

- 2.1 Effectiveness of Contract** This Contract shall come into effect on the date the Contract is signed by both Parties or such other later date as may be stated in the SC. The date the Contract comes into effect is defined as the Effective Date.
- 2.2 Commencement of Services** The Consultant shall begin carrying out the Services not later than the number of days after the Effective Date specified in the SC.
- 2.3 Expiration of Contract** Unless terminated earlier pursuant to Clause GC 2.6 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SC.
- 2.4 Modifications or Variations** Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.
- 2.5 Force Majeure**
- 2.5.1 Definition** For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a Party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.
- 2.5.2 No Breach of Contract** The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.
- 2.5.3 Extension of Time** Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
- 2.5.4 Payments** During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6 Termination

2.6.1 By the Employer

The Employer may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GC 2.6.1. In such an occurrence the Employer shall give a not less than thirty (30) days' written notice of termination to the Consultant, and sixty (60) days' in the case of the event referred to in (e).

- (a) If the Consultant does not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Employer may have subsequently approved in writing.
- (b) If the Consultant becomes insolvent or bankrupt.
- (c) If the Consultant, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- (d) If, as the result of Force Majeure, the Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (e) If the Employer, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- (f) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 8 hereof.

2.6.2 By the Consultant

The Consultants may terminate this Contract, by not less than thirty (30) days' written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this Clause GC 2.6.2:

- (a) If the Employer fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GC 7 hereof within forty-five (45) days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) days.
- (c) If the Employer fails to comply with any final decision reached as a result of arbitration pursuant to Clause GC 8 hereof.

2.6.3 Payment upon Termination

Upon termination of this Contract pursuant to Clauses GC 2.6.1 or GC 2.6.2, the Employer shall make the following payments to the Consultant:

- (a) payment pursuant to Clause GC 6 for Services satisfactorily performed prior to the effective date of termination;

- (b) except in the case of termination pursuant to paragraphs (a) through (c), and (f) of Clause GC 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standard of Performance The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Sub-Consultants or third Parties.

3.2 Conflict of Interests The Consultant shall hold the Employer's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

3.2.1 Consultants not to Benefit from Commissions, Discounts, etc. The payment of the Consultant pursuant to Clause GC 6 shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

3.2.2 Consultant and Affiliates not to be Otherwise Interested in Project The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

3.2.3 Prohibition of Conflicting Activities The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

3.3 Confidentiality Except with the prior written consent of the Employer, the Consultant and the Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.

3.4 Insurance to The Consultant (a) shall take out and maintain, and shall cause any Sub-

- be Taken Out by the Consultant** Consultants to take out and maintain, at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Employer's request, shall provide evidence to the Employer showing that such insurance has been taken out and maintained and that the current premiums have been paid.
- 3.5 Consultant's Actions Requiring Employer's Prior Approval** The Consultant shall obtain the Employer's prior approval in writing before taking any of the following actions:
- (a) entering into a subcontract for the performance of any part of the Services,
 - (b) appointing such members of the Personnel not listed by name in Appendix C, and
 - (c) any other action that may be specified in the SC.
- 3.6 Reporting Obligations**
- (a) The Consultant shall submit to the Employer the reports and documents specified in Appendix G hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.
 - (b) Final reports shall be delivered in CD ROM in addition to the hard copies specified in said Appendix.
- 3.7 Documents Prepared by the Consultant to be the Property of the Employer**
- (a) All plans, drawings, specifications, designs, reports, other documents and software submitted by the Consultant under this Contract shall become and remain the property of the Employer, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Employer, together with a detailed inventory thereof.
 - (b) The Consultant may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.
- 3.8 Liability of the Consultant**
- a) The Consultant's liability under this Agreement shall be determined by the Applicable Laws and the provisions hereof.
 - b) The Consultant shall, subject to the limitation specified in Clause 3.8 (c), be liable to the Authority for any direct loss or damage accrued or likely to accrue due to deficiency in Services rendered by it.
 - c) The Parties hereto agree that in case of negligence or willful misconduct on the part of the Consultant or on the part of any person or firm acting on behalf of the Consultant in carrying out the Services, the Consultant, with respect to damage caused to the Authority's property, shall not be liable to the Authority:
 - i. for any indirect or consequential loss or damage; and
 - ii. for any direct loss or damage that exceeds (a) the Agreement Value set forth in Clause 6. 2 (c) of this Agreement, or (b) the proceeds the Consultant may be entitled to receive from any insurance maintained by the Consultant to cover such a liability in accordance with Clause 3.4(c) and (d) of SC
 - d) This limitation of liability specified in Clause 3.8 (c) shall not

affect the Consultant's liability, if any, for damage to Third Parties caused by the Consultant or any person or firm acting on behalf of the Consultant in carrying out the Services subject, however, to a limit equal to 3 (three) times the Agreement Value.

4. CONSULTANT'S PERSONNEL

- 4.1 Description of Personnel** The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultant's Key Personnel are described in Appendix C. The Key Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the Employer.
- 4.2 Removal and/or Replacement of Personnel**
- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent or better qualifications.
 - (b) If the Employer finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the Employer's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Employer.
 - (c) The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. OBLIGATIONS OF THE EMPLOYER

- 5.1 Assistance and Exemptions** The Employer shall use its best efforts to ensure that the Government shall provide the Consultant such assistance and exemptions as specified in the SC.
- 5.2 Change in the Applicable Law Related to Taxes and Duties** If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses GC 6.2 (a) or (b), as the case may be.
- 5.3 Services and Facilities** The Employer shall make available free of charge to the Consultant the Services and Facilities listed under Appendix I.

6. PAYMENTS TO THE CONSULTANT

- 6.1 Lump-Sum Payment** The total payment due to the Consultant shall not exceed the Contract Price which is an all inclusive fixed lump-sum covering all costs required to carry out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.2 if the Parties have agreed to additional payments in accordance with Clause 2.4.
- 6.2 Contract Price** (a) The price payable in foreign currency/currencies is set forth in the SC.
(b) The price payable in local currency is set forth in the SC.
- 6.3 Payment for Additional Services** For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4, a breakdown of the lump-sum price is provided in Appendices E and F.
- 6.4 Terms and Conditions of Payment** Payments will be made to the account of the Consultant and according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first payment shall be made against the provision by the Consultant of an advance payment guarantee for the same amount, and shall be valid for the period stated in the SC. Such guarantee shall be in the form set forth in Appendix N hereto, or in such other form, as the Employer shall have approved in writing. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultant has submitted an invoice to the Employer specifying the amount due.
- 6.5** Not Used.

7. GOOD FAITH

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

8. SETTLEMENT OF DISPUTES

- 8.1 Amicable Settlement** The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
- 8.2 Dispute Resolution** Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC.

III. Special Conditions of Contract

(Clauses in brackets { } are optional; all notes should be deleted in final text)

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.3	The language/s is ENGLISH
1.4	<p>The addresses are:</p> <p>Employer: _____</p> <p>Attention: _____</p> <p>Facsimile: _____</p> <p>E-mail: _____</p> <p>Consultant: _____</p> <p>_____</p> <p>Attention: _____</p> <p>Facsimile: _____</p> <p>E-mail: _____</p>

{1.6}	<p>{The Member in Charge is <i>[insert name of member]</i>}</p> <p><i>Note: If the Consultant consists of a joint venture/ consortium/ association of more than one entity, the name of the entity whose address is specified in Clause SC 1.6 should be inserted here. If the Consultant consists only of one entity, this Clause SC 1.8 should be deleted from the SC.</i></p>
1.7	<p>The Authorized Representatives are:</p> <p>For the Employer: _____</p> <p>For the Consultant: _____</p>
1.8	<p>The Employer warrants that the Consultant, the Sub-Consultants and the Personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing/amended or enacted laws during the life of this contract. The Employer shall perform such duties in regard to deduction taxes as may be lawfully imposed.</p>
{2.1}	<p>The Effective Date shall come into effect on the date Contract is signed by both parties.</p>
2.2	<p>The date for the commencement of Services is 15 days from the effective date</p>
2.3	<p>The time period shall be <i>450 days from the effective date of contract.</i></p>
3.4	<p>The risks and the coverage shall be as follows:</p> <ul style="list-style-type: none"> (a) Third Party motor vehicle liability insurance required under Motor Vehicles Act, 1988 in respect of motor vehicles operated in India by the Consultant or their Personnel or any Associate(s) or their Personnel for the period of consultancy with a minimum coverage of Indian Rupees Ten lacs (b) Third Party liability insurance, with a minimum coverage of Indian Rupees Ten Lacs for the period of consultancy. (c) Professional liability insurance, with a minimum coverage equal to estimated remuneration and reimbursable in Indian Rupees. (d) Employer's liability and workers' compensation insurance in respect of the Personnel of the Consultant and of any Associate(s), in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and (e) Insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the

	Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.
3.7	The Consultant shall not use these documents for purposes unrelated to this Contract without prior written approval of the Employer.
{5.1}	<i>Not Applicable.</i>
6.2(a)	The amount in foreign currency or currencies is <i>[insert amount]</i> . Not Applicable
6.2(b)	The amount in local currency is <i>[insert amount]</i> .
6.4	<p>The accounts are:</p> <p style="padding-left: 40px;">for foreign currency or currencies: <i>[insert account]: Not Applicable</i></p> <p style="padding-left: 40px;">for local currency: <i>[insert account]</i></p> <p>Payments shall be made according to the payment schedule presented in Appendix H.</p>
8.2	<p>If a dispute of any kind whatsoever arises between the Authorised Representative of the Employer and the Consultant in connection with, or arising out of, the Contract or the scope of the work, whether during the study period or after completion of the study and whether before or after repudiation or termination of the Contract, including any dispute as to any opinion, instruction, determination, certification or valuation of the Authorised Representative of the Employer, the matter shall be in the first place, be referred in writing to the Authorised Representative within 30 days of its occurrence for review, with a copy to the Employer. If the Consultant fails to refer the dispute for review within 30 days, the Authorised Representative's decision shall be final and binding on the Consultant. Such reference shall state that it is made pursuant to this Clause. No later than the fourteenth day after the day on which he received such reference, the Authorised Representative shall give notice of his decision to the Employer and the Consultant. Such decision shall state that it is made pursuant to this Clause.</p> <p>Notwithstanding the arising of any dispute, unless the Contract has already been repudiated or terminated, the Consultant shall, in every case, continue to proceed with the work with all due diligence and the Consultant and the Authorised Representative of the Employer shall give effect forthwith to every such decision unless and until the same shall have been revised, as hereinafter provided.</p>

	<p>If either the Employer or the Consultant disagrees with the decision of the Authorised Representative of the Employer, the decision shall then be referred by the Employer or by the Consultant, within 30 days of the decision of the Authorised Representative of the Employer to the Steering Committee comprising not more than three members constituted by the Metropolitan Commissioner of the Employer for the project. Provided that each of three persons so nominated by the Metropolitan Commissioner shall have independence and impartiality beyond justifiable doubt. A copy of such reference shall also be endorsed to the Authorised Representative of the Employer. The Committee shall give its advice in writing to the Employer within 30 days of receipt of notification by it. The Committee may call upon the Authorised Representative of the Employer and the Consultant to hear their case before giving its advice. The decision of the Committee shall be final and binding on both Employer and Consultant.</p>
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IV. Appendices

APPENDIX A - SCOPE OF WORK

APPENDIX B - WORK PLAN AND METHODOLOGY

APPENDIX C - KEY PERSONNEL

Note: List under:

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

C-2 Same information as C-1 for Key local Personnel.

APPENDIX D – DESCRIPTION OF SERVICES

Note: Give detailed descriptions of the Services to be provided, dates for completion of various tasks, place of performance for different tasks, specific tasks to be approved by Employer, etc.

APPENDIX E - BREAKDOWN OF CONTRACT PRICE IN FOREIGN CURRENCY

Note: List here the elements of cost used to arrive at the breakdown of the lump-sum price - foreign currency portion:

- 1. Monthly rates for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenses.*

This appendix will exclusively be used for determining remuneration for additional services.

APPENDIX F - BREAKDOWN OF CONTRACT PRICE IN LOCAL CURRENCY

Note: List here the elements of cost used to arrive at the breakdown of the lump-sum price - local currency portion:

- 1. Monthly rates for Personnel (Key Personnel and other Personnel).*
- 2. Reimbursable expenditures.*

This appendix will exclusively be used for determining remuneration for additional services.

APPENDIX G - REPORTING REQUIREMENTS

Note: List format, frequency, and contents of reports; persons to receive them; dates of submission; etc.

APPENDIX H - PAYMENT SCHEDULE

APPENDIX I - SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER

Note: List here the services and facilities to made available to the Consultant by the Employer.

APPENDIX J - MINUTES OF NEGOTIATIONS

APPENDIX K - LETTER OF INTENT

APPENDIX L - LETTER OF ACCEPTANCE

APPENDIX M - POWER OF ATTORNEY

APPENDIX N - FORM OF ADVANCE PAYMENTS GUARANTEE

Note: See Clause GC 6.4 and Clause SC 6.4.

Bank Guarantee for Advance Payment (if applicable)

_____ [Bank's Name, and Address of Issuing Branch or Office]

Beneficiary:_____ [Name and Address of Employer]

Date:_____

ADVANCE PAYMENT GUARANTEE No.:_____

We have been informed that [name of Consulting Firm] (hereinafter called "the Consultants") has entered into Contract No. [reference number of the contract] dated [insert date] with you, for the provision of [brief description of Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of [amount in figures] ([amount in words]) is to be made against an advance payment guarantee.

At the request of the Consultants, we [name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in figures] ([amount in words])¹ upon receipt by us of your first demand in writing accompanied by a written statement stating that the Consultants are in breach of their obligation under the Contract because the Consultants have used the advance payment for purposes other than toward providing the Services under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Consultants on their account number _____ at [name and address of Bank].

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Consultants as indicated in copies of certified monthly statements which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the monthly payment certificate indicating that the Consultants have made full repayment of the amount of the advance payment, or on the __ day of _____, 2____,² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[signature(s)]

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

² Insert the expected expiration date. In the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Note: All italicized text is for indicative purposes only to assist in preparing this form and shall be deleted from the final product.

Preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: “The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Employer’s written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”

Power of Attorney for signing of Bid

(Refer Clause __)

Know all men by these presents, We, _____ (name of the firm and address of the registered office) do hereby irrevocable constitute, nominate, appoint and authorize Mr./Ms (Name), son/ daughter/wife of _____ and presently residing at _____, who is presently employed with us/ the Lead Member of our Consortium and holding the position of _____, as our true and lawful attorney (hereinafter referred to as the “Attorney”) to do in our name and on our behalf, all such acts, deeds things as are necessary or required in connection with or incidental to submission of our bid for the **“Technical Assistance to MMRDA for review and updating of Comprehensive Transportation Study for Mumbai Metropolitan Region(MMR)”** the Project proposed or being taken up by the Mumbai Metropolitan Region Development Authority (the “Authority”) including but not limited to signing and submission of all Bids, and other documents and writings, participate in bidders’ and other conference and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Project and / or upon award thereof to us and/ or till the signing the Contract Agreement with the Authority.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawful done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, _____, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____ DAY OF _____, 20**.

For _____
(Name & Title)

(Signature)

For _____
(Name & Title)

(Signature)

For _____
(Name & Title)

(Signature)

Witness:(Name, Title and Address)

- 1.
- 2.

(Executants)

Accepted [Notarized]

(Signature)

(To be executed by all Members of the Consortium)

(Name, Title and Address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the execution(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*
- *For a Power of Attorney executed and issued overseas, the documents will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued.*