



*REQUEST FOR PROPOSAL
(QCBS/LUMP SUM CONTRACT)*

*CONSULTANCY ASSIGNMENT FOR PREPARATION
OF COMPREHENSIVE MOBILITY PLAN (CMP) FOR
CHENNAI METROPOLITAN AREA*

OCTOBER – 2017

Chennai Metro Rail Limited (CMRL)

(A JV of Govt. of India and Govt. of
Tamilnadu)

Admin Building, CMRL Depot,
Poonamallee High road,
Koyambedu, Chennai – 600 107.

Letter of Invitation

To,

Dear Sir/Madam,

Subject: Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area (CMA)

1. You are hereby invited to submit technical and financial proposal for Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area.
2. Chennai Metro Rail Limited (CMRL) is a joint venture of the Government of India (GoI) and the Government of Tamil Nadu (GoTN) for the construction of Metro Rail in the Chennai city with loan assistance from Japan International Co-operation Agency (JICA).
3. The objective of the study is to prepare the Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area
4. The following documents are enclosed to enable you to submit your proposal
 - (i) Terms of Reference (ToR) (Annexure 1)
 - (ii) Technical Proposal Submission formats i.e. Technical Proposal Submission form, supplementary information for Consultants, Approach & Methodology, curriculum vitae, etc., (Annexure 2)
 - (iii) Financial Proposal Submission formats ((Annexure 3) i.e. Financial Proposal Submission Form, Summary of Costs, Breakdown of Costs by activity, etc.
 - (iv) A sample Form of Contract for Consultantancy services under which the services will be performed (Annexure 4)
5. Dates for Purchase of Bid document - The Tender document will be available at CMRL office from 30/10/2017 to 24/11/2017 till 17:00 hrs (IST) (During CMRL working hours and on working days).

6. Cost of Tender Document: INR 20,000/- (Rupees Twenty Thousand only), Non-refundable fee in the form of a demand draft from any nationalized bank/scheduled commercial bank in India in favour of “Chennai Metro Rail Limited”, payable at Chennai. INR 16,000/- (Rupees Sixteen Thousand only) if downloaded from CMRL website.
7. The pre-proposal conference will be held on 08/11/2017 at 15:00 hrs in the conference hall of Chennai Metro Rail Limited, Admin Building, CMRL Depot, Poonamallee High road, Koyambedu, Chennai – 107.
8. Submission of Proposal: The proposals shall be submitted in two parts, viz., Technical proposal and financial proposal. It shall be as per the formats and should follow the form given in the supplementary information for consultants.
 - (i) The Technical and Financial Proposal must be submitted in two separate sealed envelopes (with respective marking in bold letters) following the formats/schedule given in the, Technical Proposal (Cover 1) and Financial Proposal (Cover 2).
 - (ii) As part of Financial Proposal Consultant shall provide the stage wise detailed break down costs and fee as follows
 - i. Remuneration – Key Professional and supporting staff
 - ii. Travel and accommodation
 - iii. Report reproduction
 - iv. Others (if any) Please specify
 - (iii) All the sealed envelopes (Cover 1-Technical Proposal & Cover 2 – Financial Proposal) should again be placed in a sealed cover and addressed to
The General Manager (P& BD),
Chennai Metro Rail Limited,
Admin Building, CMRL Depot,
Poonamallee High road,
Koyambedu, Chennai – 600 107.
 - (iv) And which will be received in the office of the Chennai Metro Rail Limited, Admin Building, CMRL Depot, Poonamallee High Road, Koyambedu, Chennai – 600 107 up to 15:00 hours on **27/11/2017**.

9. Opening of Proposal

The proposals containing Technical proposal will be opened by authorized representative of CMRL on the submission day itself in the presence of consultant representatives. After Technical evaluation, the financial proposals will be opened only of those who have been shortlisted based on eligibility criteria as per RFP.

10. Evaluation

A two stage procedure will be adopted in evaluating the proposals:

- I. Technical evaluation, which will be carried out prior to opening any financial proposal (as per Annexure 2)
- II. Financial evaluation

11. Technical Evaluation:

Eligibility/Qualification criteria:

Firms who have the following qualifications will only be considered for technical evaluation:

- More than 10 years experience in the field of Urban Transportation Planning
- Should have successfully completed two city wide Transportation studies i.e. Comprehensive Mobility Plans (CMP) / Comprehensive Transportation Studies (CTS)
- Should have successfully completed one Comprehensive Mobility Plan Study
- Average Annual turnover of Rs.25.0 crores per year during the last 3 years
- All Professional should have minimum 5 years of experience and should have been involved in at least one Comprehensive Mobility Plan study

Proposal from firm's fulfilling the eligibility criteria will only be considered for technical and financial evaluation. The price envelopes of others will not be considered for evaluation and returned unopened after completing of the selection process

The evaluation committee appointed by the Client will carry out its evaluation of qualified firms' technical proposal applying the evaluation criteria and point system specified below. Each responsive proposal will be attributed a technical score (St).

- I. the approach & methodology and workplan (40 points); and
- II. the qualifications of key staff proposed for the assignment (60 points)

Sl.No	Criteria	Weightage
(i).	Specific experience of the consultants related to this Assignment	20
	(a). Overall Experience in the field of Urban Transportation Planning	5
	(i). 10 - 15 Years	3
	(ii). > 15 years	2
	(b). Experience in Preparation of City wide Transportation Studies	5
	(i.e. Comprehensive Mobility Plan (CTS)/ Comprehensive Transportation Study (CTS)	
	(i). Successfully completed two studies	3
	(ii). For every additional CMP Project (1 up to a maximum of 2)	2
	(c). Experience in Preparation of Comprehensive Mobility Plan Studies	10
	(i). Successfully completed one Comprehensive Transportation Study (CTS)	4
	(ii). For every additional Comprehensive Transportation (CTS) Study (2 upto a maximum of 6)	6
(ii).	Adequacy of the proposed methodology and work plan in responding to the Terms of Reference	20
	(i). Understanding of TOR	2
	(ii). Approach & Methodology and Presentation	8
	(iii). Team Composition	2
	(iv). Activity Schedule	5
	(v). Manning Schedule	3
	Points for Criterion (ii)	40
(iii)	Key professional staff qualifications and competence for the assignment	60
	(i). Team Leader cum Urban Transport Planner	12
	(iii). Urban Planner	9
	(iii). Transport Modeler	9
	(iv). Traffic Engineer	8
	(v). Highway Engineer	8
	(vi). Transport Economist	7
	(vii) Finance Expert	7
	Points for Criterion (iii)	60
	Total Points (i)+(ii)+(iii)	100

Evaluation of Key Professional

Curriculum vitae of senior personnel in each discipline for assessing the qualifications and experience of the personnel proposed to be deployed for the studies should be included with the proposal (in the format of the sample curriculum vitae). These personnel will be rated based on various parameters such as Educational qualification, Total No of year's experience, similar project experience, etc.,

The number of points to be assigned to each of the proposed positions or disciplines shall be determined considering the following four sub-criteria and relevant percentage weights. **Each Key Professional Staff shall score not less than 50% of the assigned Technical Score.**

(i).Educational Qualification				Weightage Assign
Sl.No	Proposed Position	Qualification	weightage	
1	Team Leader cum Urban Transport Planner	(i). Masters Degree in Traffic and Transportation Planning/Urban Planning	20%	20%
		(ii).Bachelor Degree in Traffic and Transportation Planning/Civil Engineering	15%	
2	Urban Planner	(i).Master Degree in Urban Planning	20%	
		(ii).Bachelor Degree in Urban Planning	15%	
3	Transport Modeller	(i). Master's Degree in Transportation Planning	20%	
		(ii).Bachelor Degree in Transportation Planning / Civil Engineering	15%	
4	Traffic Engineer	(i). Master's Degree in Traffic and Transportation Engineering	20%	
		(ii).Bachelor Degree in Traffic Engineering/Civil Engineering	15%	
5	Highway Engineer	(i). Master's Degree in Highway Engineering /Traffic Engineering	20%	
		(ii).Bachelor Degree in Civil Engineering	15%	
6	Transport Economist	(i).Master Degree in Transport Economist/Economics	20%	
		(ii).Bachelor Degree in Economics	15%	
7	Finance Expert	ACA/ CPA /ICWA / CFA / MBA(F)		
		(i) A person holding any two degree as above	20%	
		(ii).A person holding any one degree as above	15%	
(ii).Total Professional Experience				20%
<ul style="list-style-type: none"> • >15 years – 20% • 10-15 years – 15% • 5-10 years – 10% 				
(iii).No of city wide Transportation studies i.e. Comprehensive Mobility Plans (CMP) / Comprehensive Transportation Studies (CTS) involved in similar Position				
<ul style="list-style-type: none"> • > 10 Projects – 20% • 5-10 Projects – 15% • < 5 Projects – 10% 				20%

<p>(iv).No of Comprehensive Mobility Plans (CMP) studies were involved in similar position</p> <ul style="list-style-type: none"> • >5 Projects – 20% • 3-5 Projects – 15% • < 3 Projects – 10% 	20%
<p>(v). No of Comprehensive Mobility Plans (CMP) studies for Million Plus cities were involved in similar position</p> <ul style="list-style-type: none"> • > 3 Projects – 20% • 2-3 Projects – 15% • 1 Project – 10% 	20%

Quality and competence of the consultant shall be considered as the paramount requirement. Technical proposal scoring not less than 70% of the total points will only be considered for financial evaluation. The client shall notify the consultants, results of the technical evaluation and invite those who have secured the minimum qualifying mark for opening of the financial proposal indicating the date and time.

12. Financial Proposal

The financial proposal shall be opened in the presence of the Consultant’s representatives. The evaluation committee will determine if the financial proposal are complete and without any errors.

$S_f = 100 \times F_m / F$, in which S_f is the financial score, F_m is the lowest price quoted by any consultant and F the price of the Proposal under consideration.

The weights given to the Technical and Financial Proposals are:
 $T = 0.8$ and
 $F = 0.2$
 $S = S_t \times 0.8 + S_f \times 0.2$

The Client will select the highest weighted value (S) proposal among those that passed the minimum technical score and invite them for negotiations

13. Negotiations with the selected Consultant

- (i) The aim is to reach an agreement on all points, clarification on taxes and initial a draft contract at the conclusion of negotiations.
- (ii) Negotiations will commence with a discussion of the firm’s technical proposal, the proposed methodology, staffing, etc.
- (iii) Changes agreed upon will then be reflected in the draft contract, using proposed unit rates

- (iv) Having selected Consultants, among other things, on the basis of an evaluation of proposed key professional staff, CMRL will require assurance that these staff will be actually available for deployment for this assignment.
14. You are requested to hold your proposal valid for 180 days from the date of submission without changing the personnel proposed for the assignment and your proposed price.
15. Please note that the cost of Preparation of a proposal and site visits, if any is not reimbursable.
16. The Consultant may apply individually or as a member of Consortium in which a consortium member may associate with only one another member. Further the consortium shall specify the approximate percentage of participation and nominate a Lead Member of the Consortium. The consortium must submit the Power of Attorney signed by all members of the consortium in favour of the Lead Member to act on behalf of the Consortium /JV in exercising all rights and obligations of the Consortium/JV. The members of consortium are jointly and collectively responsible, however the lead member should be fully responsible.
17. The consortium (or) consultant must operate a local Project office at Chennai on award of work. The study team assigned will be available in Chennai for the entire period of study and also attend the regular review meetings with the client.
18. The total duration of the assignment is 6 Months
19. EMD: Rs. 1,50,000/- (Rupees One Lakh and Fifty Thousand only) in the form of demand draft from a Scheduled Commercial Bank in India. Demand Draft (DD) should be made in favour of "Chennai Metro Rail Limited" payable at Chennai.
20. Security Deposit: 5 % of Consultancy Fee, in the form of demand draft from a Scheduled Commercial Bank in India. Demand Draft (DD) should be made in favour of "Chennai Metro Rail Limited" payable at Chennai.
21. Please note that the fees should be quoted in Indian Rupees only
22. Please note that the remuneration which you receive from the contract will be subject to normal tax liability in India. Kindly contact the concerned tax authorities for further information in this regard if required.

23. Application:

Consultancy firms shall submit the proposal to the address indicated below:

General Manager (P&BD)
Chennai Metro Rail Limited,
Admin Building, CMRL Depot,
Poonamallee High road, Koyambedu, Chennai – 600 107
E-mail: gmpd.cmrl@tn.gov.in
Website: <http://www.chennaietrorail.org>.

General Manager (P&BD),
Chennai Metro Rail Limited,

List of Enclosures

- Annexure 1 - Terms of Reference
- Annexure 2 - Technical Proposal Submission
 - 2.1 Technical Proposal Submission Form
 - 2.2 Approach & Methodology, Work Plan
 - 2.3 Team Composition
 - 2.4 Curriculum Vitae – Key Professional Staff
 - 2.5 Work Schedule
 - 2.6 Manning Schedule
 - 2.7 Eligibility/Qualification Criteria
- Annexure 3 - Financial Proposal Submission
 - 3.1 Financial Proposal Submission Form
 - 3.2 Summary of Consultancy Fee
 - 3.3 Breakdown of Consultancy Fees by activity
- Annexure 4 – Sample Draft Contact Agreement

Terms of Reference –Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area (CMA)

1. Introduction:

As per Second Master Plan – 2026, the projected population for the Chennai Metropolitan Area (CMA) and City would be 125.82 lakhs and 58.55 lakhs respectively in the year 2026. The past two decades have seen a significant growth in population, increased urban sprawl, vehicle ownership, traffic volume and economy in Chennai Metropolitan Area. In order to understand and solve the traffic and transportation issues, it is proposed to conduct a comprehensive mobility plan for the Chennai Metropolitan Area. As part of this assignment, to prepare long-term urban transport strategy for an improvement of people's mobility and to identify specific proposals for upgradation of transport infrastructure / facilities to ease the congestion level. The study is designed to provide the broad parameters for the long term development of transport infrastructure setting objectives for the next three decades, with the horizon year as 2047. The CMP Study apart from formulating a transport improvement roadmap for the cities for the future includes an identified transport investment program containing short, medium and long term projects.

2. Objectives:

The ultimate objective of a CMP is to provide a long-term strategy for the desirable mobility pattern of a city's populace. To achieve this objective, the following are the main objectives:

1. To provide a long-term vision(s) and goals for desirable urban development in Chennai Metropolitan Area (CMA)
2. To illustrate a basic plan for urban development and include a list of proposed urban land use and transport measures to be implemented within a time span of 30 years
3. To ensure that the most appropriate, sustainable and cost effective implementation program is undertaken in the urban transport sector
4. To identify feasible short term, medium term and long term traffic management measures and transport infrastructure needs to facilitate safe and efficient movement of people for the present and future.

3.Scope of Work:

The project area is about 1189 sq. km's, consisting of City and Metropolitan area of Chennai. The Scope of work and deliverables of the CMP will be prepared in line with the Guidelines and Toolkits for Comprehensive Mobility Plan (CMP) prepared by Government of India (GoI).

In line with the Objectives and Scope of Work of the study, the following tasks are identified:

- Task 1 Scope and Timeframe
- Task 2 Collect Data and Analyze Urban Transport Environment
- Task 3 Prepare and Evaluate Urban Transport Development Strategy
- Task 4 Develop Urban Mobility Plans
- Task 5 Prepare Implementation Programme
- Task 6 Stakeholder Consultations

4. Principal areas of Activity:

Task 1 Scope and Timeframe:

The study area includes the city and the metropolitan area of 1189 sq.km and the planning horizon is 30 years. The short and medium term target years are 5 and 10 years from the base year (2017) respectively.

Task 2 Collect Data and Analyze Urban Transport Environment:

Task 2.1 Review City Profile:

Prepare a brief profile of the planning area from primary data collection and available documents, including:

- Location
- Population and demographic data
- Land area
- Regional linkages
- Socio-economic data; and
- Environmental issues, such as natural conservation areas
- Others

Task 2.2 Collect Data and Review Urban Transport System:

Collect and review all relevant reports, with particular attention to the City Development Plan. Data on socio-economic characteristics, vehicle ownership, the transport network, transport policy and other available engineering parameters relevant to the study shall be collected. All other relevant information relating to accidents, land use planning, mapping, rights of way on key corridors shall be collected. Any inconsistency or deficiency in the information shall be addressed.

In addition to the above the consultants shall collect the following items (as available):

- I. Small-scale maps, land use maps,
- II. Satellite images,
- III. Socio-economic data/Census data

Prepare a database more specifically relative to land-use and topography of the area. Of special importance in the process of travel demand model development and generating engineering solutions is the evaluation of satellite imagery, providing an updated picture of land use.

To review the existing urban transport systems, the consultants should collect and review the following data and information, through interview survey, field surveys and secondary data collection, etc.,.

- Existing studies, reports and proposals
- Existing transport infrastructure
- Public transport scenario
- Traffic safety and enforcement
- Institutional and financial situation
- Environmental and social condition.

Task 2.3 Traffic Surveys and Inventories:

Traffic and other surveys, as defined below, shall be carried out in the form of surveys, data collection, assessment, analysis and evaluation. The surveys shall be done as per IRC Standards. The objective is to determine: (i).Link traffic flow, both vehicle classified by type and person by mode, motorized and non- motorized, (ii).Assessment of level of service and (iii).Vehicle characteristics for determination of vehicle operating costs

Proposed traffic survey locations should be identified during Task 1 and be listed in the Inception Report.

Task 2.3.1 Manual Classified Counts

Classified vehicle and person travel volume counts shall be conducted at critical links and intersections for a period of 16 hours (6.00 to 22 hours) including the morning and evening peak hours. The following data will be collected:

- Category wise hourly flow
- Daily and Peak hour Traffic
- Traffic composition
- Directional Traffic

Task 2.3.2 Parking Survey

Work and business centers, Transport Terminals, shopping complexes and tourist attractions are major generators of parking demand. Parking demand should be established by patrolling method where there is significant on-street parking occurs. The survey shall be conducted for a period of 12 hours continuously in such areas.

Task 2.3.3 Origin-Destination Survey

Origin- destination surveys shall be conducted at inner/outer cordon points i.e. all major entry/exit points for 24 hours on a working day. The location of survey stations to be finalized in consultation with the client. Travel counts at survey locations to be done simultaneously to facilitate adjustment for sampling. The information shall be obtained by trained enumerators and experienced supervisors and include: type of vehicle, origin and destination, trip purpose, place of residence and employment of road user and frequency of travel, etc.,

Task 2.3.4 Speed and Delay Surveys

These surveys have to establish road capacity and extent of congestion on key sections to determine possible improvements: widening, intersections, traffic control, traffic management etc. The consultants shall carry out speed delay surveys during peak and off-peak hours.

The free speed shall be observed and impact of the prevailing traffic on running speed during peak and off-peak hours for each section shall be established to indicate the level of congestion. Typical delays and causes shall be identified.

Task 2.3.5 Public Transport Passenger On Board Survey

The survey shall be conducted on routes within the city (Bus/Rail) for a period of 24 hours. The basic purpose of the survey shall be to collect information regarding origin, destination, trip purpose, frequency of travel, traveler characteristics and other particulars. The random survey sampling technique shall be adopted to survey the passengers.

Task 2.3.6 Bus/Rail Terminal Survey

Public Transit trips which originate/terminate outside the city planning area with destination/origin within the city will be surveyed. The survey shall be planned for 24 hours at intercity bus terminals, railway terminal stations, airport etc.

Task 2.3.7 Household Survey

This survey is to collect data on travel characteristics of household residents and general characteristics of the household influencing trip making. The study area shall be divided into zones. A sample size of 1 % of households shall be covered as part of Household Interview Survey. Based on the survey, travel pattern and socio economic characteristics shall be established.

Task 2.3.8 Vehicle Operators' Survey

A sample survey of operators of taxis, auto rickshaws, goods vehicles along with slow moving goods vehicles shall be conducted inside the city area with assistance from the vehicle owners' associations. Information on vehicle and operating characteristics shall be collected. In the case of slow moving goods vehicles, operating cost, socio-economic characteristics of operators and routes of operation shall be determined.

Task 2.3.9 Truck Terminal Survey

This survey is to collect information on movement patterns of persons/goods at major terminal and market areas: vehicle (goods and passenger) entry/exit, including commodity/occupancy etc. The survey is to be undertaken at main railway stations, bus terminals, port/river bank, airport etc.

Task 2.3.10 Pedestrian Survey

Pedestrian surveys shall be carried out to assess flows/demand at important major intersections and road corridors. The survey shall be from 06:00 to 22:00 on a normal working day and is to detail the number of pedestrians moving along and across the road at mid block and at intersections.

Task 2.3.11 Road Inventory

An inventory shall be conducted along all major roads in adequate detail, including link lengths, cross-sectional details, type and general surface condition, street furniture, intersections, control devices, drainage condition, abutting land use etc.

Task 2.3.12 Topographic Surveys at Key Sections/Junctions

The consultants shall conduct primary surveys to prepare base plans for critical sections and junctions to facilitate improvements. Total station survey shall also be conducted for major terminals (bus and rail), based on the prevailing traffic circulation pattern and parking demand etc. and appropriate improvement proposals is to be established.

Task 2.3.13 Develop Base-Year Transport Demand Model

In this task, a base-year transport demand model shall be developed using the results of the O-D survey. The study should have details of applying travel demand modeling to analyze/evaluate urban land use and the transport system. Modeling provides a quantitative and scientific approach to improving mobility. The modeling should emphasize person-based travel patterns, along with vehicle movements and include more NMV/pedestrian movements. It should also enable integrated planning of urban land use and the transport system.

The consultant shall develop a four stage Travel demand model for CMA by using Transport Modeling software such as CUBE Software for planning purposes. The transport network, both highway and public transport, and travel models developed for the study area should be appropriate to the city context and be sensitive to land use travel, traveler and system characteristics such as times and costs for the restive modes. The developed travel models should reflect the travel behavior of different income and social groups for different trip purposes.

Travel assignments, both roadway and public transport, for the existing scenario should be done for both peak and off-peak hour. The consultant should produce a working paper, presenting the main data and assumptions used by the model.

Calibration and validation of the model is a well identified step in the process of the study. The consultant should therefore produce a specific report on the same that should be formally accepted by the client before the consultant progresses further in the step.

Task 2-4 Review Land Use Plan:

Data on existing land use and land use plans should be collected and presented, through a detailed review of existing development plans, including the Master Plan and/or the City Development Plan (CDP). In particular, new development areas that will affect transport demand in the planning area should be inventoried and summarized

Task 2-5 Analyse Traffic/Transport Situation:

Based on the information/data collected, a basic analysis of the transport and traffic situation should be carried out identifying characteristics and issues for the city. The following should be carried out:

- Comparative analysis of urban transport situation
- Diagnosis of urban transport situation
- Analysis of travel and travel characteristics
- Analysis of social conditions and impacts of alternatives

Task 3 Prepare and Evaluate Urban Transport Development Strategy

Task 3-1 Visions and Goals

It is essential that the mobility improvement measures form a coherent package with a consistent vision and goals for the desirable direction of city urban transport. The visions and goals define the desired form of long-term urban transport system in the city. While visions are statements of the desirable direction of urban transport development, goals are quantitative/qualitative targets for major indices, to be achieved within the planning horizons.

Task 3-2 Urban Growth Scenarios

In this task, optimal land use and transport systems will be examined. For analytical purposes, urban growth scenarios will be developed in combination with strategic level transport networks. The study should provide a preferred growth scenario from the viewpoint of an optimal urban land use and transport development pattern.

Task 3-3 Future Transport Network Scenarios

The future transport network consists of the existing network and additional network. Future modal travel, total and flows, needs to be estimated by the use of modeling analysis. These will be evaluated against mode share targets established to reflect the adopted vision, goals and objectives.

Task 3-4 Development Urban Land Use and Transport Strategy

Each combination of transport network and urban growth scenario developed in the previous tasks should be assessed using the transport demand model. Land use patterns will be included in the modeling analyses, in terms of a specific distribution of residential population and employment. Various land-use plan measures should be considered in relation to transport development strategies. The alternative development scenarios will be evaluated by using criteria, such as potential effectiveness of public transport total travel time, average travel speeds, and economic indices apart from the settlement pattern both present and future foreseen. Based on the evaluation, a desirable urban development strategy will be proposed.

Task 4 Develop Urban Mobility Plan

Urban transport projects should be identified which would support the CMP vision and goals and the development scenario.

Task 4-1 Public Transport Improvement Plan

A public transport improvement plan should be developed including services, facilities and infrastructure. The proposed system should be a hierarchical one, differentiating among local and higher order, i.e., trunk services. Stations/stops locations, general locations of terminals and depots should be included. The detail analysis for the trunk system (e.g., Bus System/BRT/LRT/Metro) should be undertaken on a corridor basis.

Task 4-2 Road Network Development Plan

Road projects will be developed and listed in the CMP, including the following:

- Hierarchical Road Network;
- Arterial Road Construction/Widening Projects;
- Secondary Road Construction/Widening Projects;
- Intersection Improvement Projects;
- Flyover Projects; and
- Railway over Bridge (ROB) or Underpass Projects.

The Road Network Plan should include the following aspects: (i) existing and future traffic bottlenecks, (ii) explanation of proposed strategy in terms of land use pattern, (iii) public transport network, (iv) role and benefit of each project within the Road Network Plan, (v) recommendations for infrastructure, (vi) operations and maintenance on existing and proposed road networks, (vi) provision of sidewalks and NMV lanes, and (viii) estimated costs of proposed projects.

The consultants in consultation with the client shall identify the committed schemes, proposed schemes and accordingly prepare do-nothing, do-minimum, do- something networks to assess the impact.

Task 4-3 NMT Facilities

Planning for pedestrians, bicycles and cycle rickshaws will be one of the most important tasks. As the CMP sets out vision/goals for the metropolitan region and serves as a strategic level plan for urban land use and transport systems, the NMT policy level planning may be accepted. However, detailed NMT improvement plans and traffic management measures can be worked out for CBD, commercial centres, and other major activity centres, which refine NMT policy for the whole region and provide the costing basis to implement such policy.

Task 4-4 Mobility Management Measures

Measures for mobility management should be developed with implications for regulation and enforcement. The topics to be covered in this plan include:

- Pedestrian Facilities
- NMV Facilities
- Traffic Control Measures
- Parking Plan
- Intersection Improvement Projects (in parallel with Road Network Development Plan)
- Demand Management Measures
- Traffic Safety Plan
- Para-Transit Plan
- Intelligent Transport System (ITS) and User Information

Task 4-5 Regulatory and Institutional Measures

Effective development of urban land use and the transport system often requires regulatory and institutional changes. Such requirement should be thoroughly worked out and documented in the CMP. The regulatory and institutional plan should include the following:

- Bus service improvement ;
- Traffic safety improvement (traffic regulation, mandatory road user education, enforcement systems);
- Introduction of Transport Demand Management (TDM) measures ;
- Vehicle emissions (focus on non-fuel based vehicles and compressed natural gas/CNG vehicles); and
- Public-Private Partnership
- Coordination mechanism to integrate public transport operation and to integrate fares;
- Establishment of Unified Metropolitan Transport Authorities (UMTA);
- Establishment of SPVs for the implementation of proposed projects; and
- Changes necessary to promote Public-Private Partnerships (PPPs).

Task 4-6 Fiscal Measures

Fiscal measures should also be considered to achieve balanced modal split, and to secure the budget necessary to implement urban transport projects. The following aspects may have to be examined in the CMP document:

- Fare policy for public transportation, and parking;
- Subsidy policy for public transport operators;
- Taxation on private vehicles and public transport vehicles; and
- Potential for road congestion charging.
- To prepare financial operating plan and economic analysis

Task 4-7 CMP Measures and NUTP Obligations

Prepare a table summarizing the relationship between the National Urban Transport Policy (NUTP) objectives and the measures proposed in the CMP, together with a classification of the measures according to their implementation time frame (short, medium and long term).

Task 4-8 Evaluation

A comprehensive evaluation system should be developed in consultation with ULB and stakeholders, taking into account all relevant factors such as capital and operational costs and environmental, social and political factors, services to the poor and vulnerable. In principle, (the evaluation should be comprehensive, on the basis of four major criteria: (i) economically viable; (ii) socially acceptable; (iii) environmentally sustainable; and (iv) financially feasible.

Consultants should establish the framework for economic evaluation that would be used in the formulation of a long-term transport strategy and the identification of a phased investment program. The framework should allow the economic feasibility to be expressed in terms of expected Net Present Value (NPV) and Internal Rate of Return (IRR). Special attention should be given to the following major areas:

- Identify major items of social, environmental and economic benefits;
- Establish appropriate vehicle operating costs (VOC) and value of travel time (VTT); and
- Develop appropriate economic evaluation procedures to make full use of UTP model outputs including link traffic volumes and speeds by vehicle type for existing and planned networks

Task 4-9 Others

- To study and identify various Cleaner Development Mechanisms (CDM) that can adopted for the study area
- To study and identify the association of the private sector during implementation
- To structure a Institutional, Education and Communication (IEC) material for the corporation / ULB in order to create public awareness and cooperation

Task 5 Prepare Implementation Programme

Task 5-1 Implementation Programme

An implementation programme including practical procedures to implement the proposed measures, in terms of timeframe, financing options and implementation agencies, should be prepared. A brief summary of project information is required, including project title, location, estimated cost etc. Proposed projects should be evaluated and prioritized against clear criteria and classified into short, medium and long-term. Specifically, the following tasks should be conducted: (i).Preparation of Project Long list, (ii). Selection of Priority Measures, (iii).Prioritization Methodology, (iv).Identification of Implementation Agencies, (v).Identification of Possible Financing Options and (vi).Development of Implementation Programme

Task 5-2 Social and Environmental

Perform preliminary social and environmental impact assessments of each priority project and the key environmental considerations, constraints, results and direct & indirect implications of the alternative proposals be fully reflected in the recommended projects. Conduct also a Strategic Environmental Impact Assessment (SEIA) in order to examine and evaluate the project for minimal environmental cum socio-economic impacts and for justification within the national/regional and/or corporation planning framework.

Task 5-3 Project Profile Sheets

Project profile sheets should be prepared for short term projects.

Task 5-4 Identified shelf of schemes and implementation phasing

The identified transport management measures are to be listed with details of phasing plan.

Task 6 Stakeholder Consultations

The study should be discussed with all stakeholders (Greater Chennai Corporation, Chennai Metropolitan Development Authority, Traffic Police, Highways Department, Metropolitan Transport Corporation, etc.), public, private sector, civil society and the general public throughout the study for identify the gaps in the existing transportation network scenario, public opinion on the alternative proposals, etc. Workshops should be organized at interim report stage, develop a consensus and consolidating the proposals.

5. Data, Services and Facilities to be provided by the Client

Data available with ULB, reports, plans as available shall be provided to the consultants.

6. Data inputs and Services from the Client

The Client will provide to the Consultant all the available data, documentation and maps available with them. The Client shall make available its senior officers for consultation purposes and furnish the available relevant data and documentation, maps for consultant's reference and study.

Study Duration

The total duration of the assignment is 6 months.

Deliverables

The following outputs shall be provided by the consultant as part of the services for Project Preparation:

Sl.No	Deliverables	No of Copies
1	Inception Report	10 Nos
2	Traffic Survey Report (including Household Survey)	10 Nos
3	Interim Report	10 Nos
4	Draft Comprehensive Mobility Plan	10 Nos
5	Stakeholder Consultation Meeting Report	10 Nos
6	Final Comprehensive Mobility Plan	15 Nos

Project Development and Payment Terms

Following Deliverables along the scheduled time is presented below:

S. No.	Report	Cumulative Timeline	Payment
1	Inception Report	15 days	10%
2	Traffic Survey Report	105 days	20%
3	Interim Report	135 days	25%
4	Draft Comprehensive Mobility Plan	165 days	25%
5	Final Comprehensive Mobility Plan	180 days	20%

Manning schedule

Sl.No	Key Personnel	Proposed Man Months
Key Professional Staff		
1	Team Leader	6
2	Urban Planner	2
3	Transport Modeler	2
4	Traffic Engineer	2
5	Highway Engineer	1
6	Transport Economist	1
7	Finance Expert	1
Sub Key Professional Staff		
1	Urban Planner	2
2	Transport Modeller	2
3	Traffic Engineer - 1	4
4	Traffic Engineer - 2	2
5	Transport Planner	2
6	Highway Engineer	2
7	Financial Analyst	1
8	CADD Operator	2

Annexure 2 – Technical Proposal

2.1 - Technical Proposal Submission Form

Date:

To
General Manager (P&BD)
Chennai Metro Rail Limited,
Admin Building, CMRL Depot,
Poonamallee High road,
Koyambedu, Chennai – 600 107.

Dear Sir:

We, the undersigned, offer to provide the “Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area” in accordance with your Request for Proposal dated *[Insert Date]* & its addendum. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed under a separate envelope.

We are submitting our Proposal in association with: *[Insert a list with full name and address of each associated Consultant]*.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment.

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: _____

2.2 Description of Approach, Methodology and Work Plan for Performing the Assignment

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (inclusive of charts and diagrams) divided into the following three chapters:

- a) Technical Approach and Methodology,*
- b) Work Plan, and*
- c) Organization and Staffing,*

a) Technical Approach and Methodology. In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology 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. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan. 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 Client), 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.

c) Organization and Staffing. 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.]

2.3 Team Composition and Task Assignments

Name of Staff	Position Assigned	Qualifications	Total years of experience	Similar Position of experience	Experience in CCTS/CMP Projects

Name of Staff	Position Assigned	Qualifications	Total years of experience	Similar Position of experience	Experience in CCTS/CMP Projects

- Note:** 1. CV of above Key Professional Staff shall be submitted for evaluation.
 2. CV of Sub-key Professional Staff shall be submitted at the time of commencement of services before deployment.

2.4 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. **Date of Birth:** _____ **Nationality:** _____
5. **Education** [*Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment*]: _____

6. **Membership of Professional Associations:** _____

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

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

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

10. **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]: _____

Client: _____

Positions held: _____

<p>11. Detailed Tasks Assigned</p> <p><i>[List all tasks to be performed under this assignment]</i></p>	<p>12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned</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 11.]</i></p> <p>Name of assignment or project: _____</p> <p>Year: _____</p> <p>Location: _____</p> <p>Client: _____</p> <p>Main project features: _____</p> <p>Positions held: _____</p> <p>Activities performed: _____</p>
---	--

13. 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 willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

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

Full name of authorized representative: _____

2.5 Work Schedule

N°	Activity ¹	WEEKS ²												
		1	2	3	4	5	6	7	8	9	10	11	12	13
1														
2														
n														

- 1 Indicate all main activities of the assignment, including delivery of reports and other benchmarks such as Client 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.

2.6 Manning Schedule

N°	Key Professional/ Sub-Key Professional	WEEKS ¹												
		1	2	3	4	5	6	7	8	9	10	11	12	13
1														
2														
n														

- 1 Duration of activities shall be indicated in the form of a bar chart.

2.7 Eligibility/Qualification Criteria

Sl.No	Description	Remarks																								
1	No of Years' experience in the field of Mass Transportation Planning (with supporting documents)																									
2	List of successfully completed city wide Transportation studies i.e. Comprehensive Mobility Plans (CMP) / Comprehensive Transportation Studies (CTS) (with project completion certificate, work order, Project abstract summary and relevant documents)																									
3	List of successfully Comprehensive Mobility Plan Study (with project completion certificate, work order, Project abstract summary and relevant documents)																									
4	Annual Turnover for the last 3 years (with supporting documents – Balance Sheet, Annual Report & Audited Statement) (i). 2016 – 17 (ii). 2015 - 16 (iii). 2014 – 15																									
5	<p>List of Key Professional Staff with Professional Experience:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-left: 20px;"> <thead> <tr> <th style="width: 10%;">Sl.No</th> <th style="width: 30%;">Key Professional (Name)</th> <th style="width: 20%;">Professional Experience (in years)</th> <th style="width: 40%;">No of successfully completed CMP Study</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Sl.No	Key Professional (Name)	Professional Experience (in years)	No of successfully completed CMP Study																					
Sl.No	Key Professional (Name)	Professional Experience (in years)	No of successfully completed CMP Study																							

Annexure 3

3.1 Financial Proposal Submission Form

Date

To:

General Manager (P&BD).
Chennai Metro Rail Limited,
Admin Building, CMRL Depot,
Poonamallee High road,
Koyambedu, Chennai – 600 107.

Dear Sir,

We, the undersigned, offer to provide the consultancy Services for “Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area” in accordance with your Request for Proposal dated [*Insert Date*] & its addendum and our Technical Proposal. Our attached Financial Proposal is for the sum of [*Insert amount(s) in words and figures*¹]. This amount is inclusive of all the taxes, cess duties and levies.

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.

No Commissions and gratuities paid or to be paid by us to agents relating to this Proposal and Contract execution.

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: _____

3.2 Summary of Consultancy Fees

Sl.No	Description	Consultancy Fee (in INR.)
I	Costs of Financial Proposal for Preparation of Comprehensive Mobility Plan for Chennai Metropolitan Area (FIN 1A+1B+1C+1D+1E)	
II	Goods and Service Tax	
III	Total Cost	

Note:

1. The consultant shall indicate the local taxes, duties, fees levies etc except Goods & Service tax including percentage of taxes considered in their financial proposal.

3.3 Breakdown of Consultancy Fees by Activity

1A. Remuneration

Position	Name	Staff Months	Unit rate in INR	Amount in INR

1B. Travel & Accommodation

Position	Name	Staff Months	Unit rate in INR	Amount in INR

1C. Report Preparation

Report	Unit rate in INR	Amount in INR

1D. Primary Surveys

Sl.No	Type of Surveys	Unit rate in INR	Quantity	Amount in INR
1				
2				
n				

1E. Others (if any)

Draft Contract Agreement

**Agreement for Preparation of Comprehensive Mobility Plan for
Chennai Metropolitan Area (CMA)**

“THIS AGREEMENT entered into at Chennai on this ----- the day of ----- 2017,

BY AND BETWEEN

Chennai Metro Rail Limited (CMRL) incorporated under the Companies act, 1956 having its registered office at Chennai Metro Rail Limited, CMRL Depot, Admin Building, Poonamallee High Road, Koyambedu, Chennai – 600 107 hereinafter referred to as the “Client” (which expression shall unless repugnant to the context mean and include its successors and assigns) of the First Party

AND

-----, a Company incorporated under the provisions of Companies Act, 1956 and having its Registered office at ----- hereinafter referred to as the “Consultant” (which expression shall unless repugnant to the context or meaning thereof include the successors and assigns) of the Second Party

WHEREAS, the Client wishes to have the Consultant perform the services hereafter referred to, and

WHEREAS, the Consultant is willing to perform these services,

NOW THEREFORE THE PARTIES hereby agree as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the Terms of Reference herein after referred to.
2. The Consultant shall perform the services specified in the “Terms of Reference and Scope of Services”, which is made an integral part of this Contract.
3. The following documents shall be deemed to form and be read and construed as part of this agreement and the priority of the documents shall be as follows, viz.

1. Letter of Acceptance (LoA)
 2. Terms of Reference and Scope of Services
 3. List of Consultant Personnel
 4. Consultant's Reporting Obligations
 5. Corrigendum to the Tender (if any)
 6. Notice Inviting Tender
 7. The financial bid submitted dated xx.xx.xx
4. Consultant shall pay to CMRL a refundable interest free security deposit ----- (Rupees ----- only) in the form of a Demand Draft within 15 (fifteen) days of issue of acceptance letter. The interest free Security Deposit will be refunded by CMRL only on satisfactory completion of the contract period taking into consideration that all CMRL dues are cleared.
 5. The Client hereby covenants to pay the Consultancy firm in consideration for the carryout and completion of the study / services, the consultancy fee of -----(Rupees ----- --Only) inclusive of goods & service tax being the sum stated in the LOA and the financial bid documents submitted by the Consultancy firm.
 6. Payment shall be made after the client is satisfied about the completion of deliverables and based on the approval by the Client. The total duration of assignment is 6 Months. The Schedule of payments is specified below:

S. No.	Report	Cumulative Timeline	Payment
1	Inception Report	15 days	10%
2	Traffic Survey Report	105 days	20%
3	Interim Report	135 days	25%
4	Draft Comprehensive Mobility Plan	165 days	25%
5	Final Comprehensive Mobility Plan	180 days	20%

7. The Client designates ----- as Client's Coordinator. The Coordinator will be responsible for the coordination of all activities under this contract, for acceptance and approval of the reports and other deliverables by the Client and for receiving and approving invoices for payment.
8. The Consultant shall ensure full compliance with tax laws of India with regard to this License Agreement and shall be responsible for the same. The Consultant shall keep the Client fully indemnified against liability of tax, interest, penalty, etc. in respect thereof which may arise.

9. The Consultant undertakes to perform the services with the highest standards of professional and ethical competence and integrity. The Consultant shall promptly replace any employee assigned under this Contract that the Client considers unsatisfactory. Consultant shall not withdraw any assigned persons without the prior concurrence of the Client.
10. The Consultant shall not assign this Contract or sub-contract any portion of it without the client's prior written permission, in which event such sub-contractor shall be called as sub-consultant for the purpose of this contract.
11. The Consultant shall permit, and shall cause its Sub Consultants to permit, the Client and/or persons or auditors appointed by the Client to inspect and/or audit its accounts and records and other documents relating to the submission of the proposal to provide the services and performance of the Contract. Any failure to comply with this obligation may constitute a prohibited practice subject to contract termination and/or the imposition of sanctions by the Client.
12. The Consultants shall not disclose any proprietary or confidential information relating to the Services, this contract or the Client's business or operations without the prior written consent of the client.
13. Study Reports, Topographic survey data, Geo Technical data and other relevant material, graphic, software or otherwise prepared by the Consultant for the Client under the Contract shall belong to and remain the property of the Client.
14. Force Majeure means an event which is beyond the reasonable control of consultant and which makes consultant's performance of its obligations hereunder impossible Any period within which a consultant shall, pursuant to this contract, complete any action or task, shall be extended for a period equal to the time during which consultant was unable to perform such action as result of force majeure.
15. The Consultant will be responsible for taking out insurance coverage in the performance of the services under this contract including but not limited to the following:-
 - (i) Third Party Liability Insurance
 - (ii) Workmen's compensation insurance
16. The Consultant shall protect, defend, hold CMRL harmless and indemnified against any legal, quasi-legal or civil implications that may arise out of any dispute, error of omission or commission, any lapse or laxity solely on account of failure of the Consultant or his nominee in the discharge of the obligations under the contract.

17. The Contract shall be governed by the laws of Government of India and Tamilnadu and the language of the Contract shall be in English. The Consultancy shall obey all the applicable laws including labor and various Central and State Govt. Laws in force from time to time.
18. Client reserves the right to claim liquidated damages upto 2.5% of the consultancy fee from Consultant for not following the instructions issued by CMRL authorities from time to time or for any other breach of the clauses of the contract.
19. Dispute Resolution:
- 19.1 Negotiation and Amicable Settlement: In the event of any dispute in connection with or arising out of this Agreement between the parties (“Disputes”), the parties shall firstly attempt to amicably resolve such disputes through the highest level of negotiations and discussions.
- 19.2. Adjudication:
- 19.2.1 If any dispute between the parties is not resolved through negotiations and amicable settlement, either party shall give notice in writing to the other party of its intention to refer such dispute to Adjudication.
- 19.2.2 The sole-member Adjudicator shall be nominated by the Managing Director of the Licensor (CMRL) at his discretion. He may also be an officer of CMRL, not below the rank of General Manager, but one who has not dealt with the subject contract or disputed matter. The remuneration of the Adjudicator shall be fixed by the Managing Director of CMRL and shall be shared by both the parties. The Adjudicator shall reach a decision within 30 days or such period as agreed between the parties from the date of reference of the dispute.
- 19.2.3 If either party is dissatisfied with the Adjudicator’s decision, then the party, on or before 30 days on receipt of such decision, shall notify the other party of its dissatisfaction, and its intention to refer the dispute to Arbitration, failing which the decision of the Adjudicator shall be final.
- 19.3. Arbitration: The dispute so referred shall be settled by Arbitration and the parties agree on the following procedure for appointing the Arbitrator / Arbitrators:
- 19.3.1 The dispute shall be referred to a sole-member Arbitral Tribunal. Such sole-member shall be nominated by the party seeking arbitration from the List of Arbitrators, maintained by the Licensor, consisting of independent persons to be nominated as Arbitrators, who shall meet with the requirement relating to the independence or impartiality of arbitrators referred to in the Fifth and Seventh

schedules, read with Section 12, sub-sections (1) (a), (b) and (5) of the Arbitration and Conciliation Act, 1996 as amended by the Arbitration and Conciliation (Amendment) Act 2015.

- 19.3.2 If the party seeking Arbitration is the Licensee, such proposal shall be addressed to the Licensor and the Licensor shall, within fifteen days from the date of receipt of such proposal, send the list of Arbitrators maintained by the Licensor, referred in clause 19.3.1 above, to the Licensee. The Licensee shall nominate an arbitrator from the list within fifteen days from the date of receipt of the list from the Licensor. If the party seeking Arbitration is the Licensor, it shall forward such proposal to the Licensee along with the nomination of an Arbitrator from the list referred to in clause 19.3.1 above.
- 19.3.3 If either party fails to nominate the arbitrator within the prescribed time limit, as mentioned above, then such other party, after the expiry of the prescribed time limit, has the right to nominate the Arbitrator from the said list on behalf of the party failing to nominate.
- 19.4. The parties agree that the selection and nomination of Arbitrator from the list should be based on the nature and subject matter of dispute to be adjudicated upon, that is, the nominated Arbitrator shall have sufficient knowledge and experience to decide upon the disputed matter.
- 19.5. In the event of an arbitrator dying, neglecting or refusing to act or resigning or being unable to act for any reason, it shall be lawful to appoint another arbitrator in place of the outgoing arbitrator in the manner aforesaid.
- 19.6. Subject to aforesaid, the Arbitration and Conciliation Act 1996, as amended from time to time and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this clause.
- 19.7. During the pendency of arbitration / conciliation proceedings, the Licensee shall continue to perform and make payments due to CMRL as per the License agreement.
- 19.8. The venue of the arbitration shall be Chennai. The cost of Arbitration including the fees of the Arbitrator shall be borne equally by both the parties.
- 19.9. Jurisdiction of Courts: The Courts at Chennai shall have exclusive jurisdiction to adjudicate any claim, dispute or matters arising out of this Agreement.

20. The Client may terminate this Contract by giving 10 day's notice to the Consultant after the occurrence of any of the events specified in this clause and also shall forfeit the Performance Security Deposit of the Consultant:

- i. If the Consultant does not remedy a failure to the complete satisfaction of the client in the performance of its obligations under the Contract within seven (7) days after being notified, or within any further period as the Client may have subsequently approved in writing.
- ii. In case of failure to commence the services within the stipulated time
- iii. If the Consultant becomes insolvent or bankrupt
- iv. If the Consultant withdraw the services
- v. If the Consultant, in the judgment of the Client, has engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for or in performing the Contract.

IN WITNESS WHEREOF, the Client and the Consultant have caused this Agreement to be executed by their duly authorized representatives, as follows:

FOR THE CLIENT

FOR THE CONSULTANT

Signed by -----

Signed by -----

Name:.....

Name:

Title -----

Title -----

Witness:

Witness:

List of Annexures:

- Annexure I – Terms of Reference and Scope of Services
- Annexure II – List of Consultant's Personnel and assigned services
- Annexure III – List of Project Deliverables and Payment Terms