

PROCUREMENT OF CONSULTANCY SERVICES TO CONDUCT TRANSPORT MODELING AND FEASIBILITY STUDIES FOR MASS TRANSIT SYSTEMS IN FAISALABAD AND MULTAN



- 1. Punjab Metrobus Authority (PMA) is a statutory body established by the Government of the Punjab for the purposes of planning, construction, operation and maintenance of mass transit systems in the major cities of the Punjab, Pakistan; for providing safe, efficient and comfortable urban transportation system.
- 2. PMA intends to hire the services of Engineering Consulting Firm(s) to conduct the detailed transport modeling for establishing a long-term mass transit network and to prepare feasibility study for the identified priority-1 mass transit line in each of the two cities listed below:

Sr No	Title	Bid Submission Date and Time	Bid Opening Date and Time
1	TRANSPORT MODELING AND FEASIBILITY STUDY FOR MASS TRANSIT SYSTEM IN FAISALABAD CITY	09 October 2013 At 1100 Hours PST	09 October 2013 At 1130 Hours PST
2	TRANSPORT MODELING AND FEASIBILITY STUDY FOR MASS TRANSIT SYSTEM IN MULTAN CITY	11 October 2013 At 1100 Hours PST	11 October 2013 At 1130 Hours PST

- 3. Reputed national and international consulting firms having expertise and experience in planning of mass transit systems are invited to submit their proposals. Consulting firms may associate or form joint ventures (JVs) with local or international firms to enhance their qualifications subject to a maximum of three firms.
- 4. Interested firms/JVs should include following information in their technical submission as a pre-requisite:
 - i. Certificate of registration of the firm as a legal entity;
 - ii. Registration of firm with relevant professional body ie. Pakistan Engineering Council (PEC) in the relevant category as Consultant;
 - iii. Documents to substantiate the forming of JV (if any);
 - iv. Copy of Registration with Income Tax Department;
 - v. Audited statements of accounts and annual turnover for the last three (3) years;
 - vi. A certificate/affidavit that the firm is not blacklisted or debarred by any Government/ Semi-Government/ Autonomous/ International Body.
- 5. Each city will be treated as a separate procurement for the purposes of award. A consulting firm/JV can submit proposals for one or more cities.
- 6. Request for Proposals (RFPs) documents for each city can be downloaded from the PPRA website (www.ppra.punjab.gov.pk) or PMA website (www.pma.punjab.gov.pk).
- 7. A pre-bid conference will take place on 10 September 2013 at 1100 hours at PMA office (address given below) for the prospective bidders.
- 8. Procurement will be carried out as per Punjab Procurement Regulatory Authority Rules. Competitive bidding will be conducted in accordance with the single stage: two envelope bidding process.
- 9. Proposals will be received during office hours at the PMA office (address given below) no later than the dates and times mentioned in para 2 above.
- 10. All technical proposals will be opened publicly at PMA office (address given below) on the dates and times mentioned in para 2 above and in the presence of the bidders or their representatives who may choose to be present.
- 11. Financial proposals will be opened following technical proposals evaluation at PMA office on a date and time which will be conveyed in advance to bidders whose technical proposals are successful.
- 12. PMA reserves the right to reject all proposals at any time prior to the acceptance of a proposal.
- 13. All questions/queries/clarifications regarding this procurement should be directed to the representative whose contact details are given below:

Technical Advisor, Punjab Metrobus Authority (PMA), 5th Floor, Arfa Software Technology Park, 346-B Ferozepur Rd, Lahore-PAKISTAN Tel: +92-42-35880136, Cell, +92-344-4378636, Fax: +92-42-99232541 Email: pmatechadvisor@gmail.com





Bidding Document

PROCUREMENT OF CONSULTANCY SERVICES TO CONDUCT TRANSPORT MODELING AND FEASIBILITY STUDY FOR MASS TRANSIT SYSTEM IN MULTAN

The Punjab Metrobus Authority Government of the Punjab

5th Floor, Arfa Software Technology Park (ASTP) 346-B, Main Ferozepur Road, Lahore, Pakistan.

Phone: +92 42 3588 0136 Fax: +92 42 9923 2541

URL: <u>www.pma.punjab.gov.pk</u>

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Important:

- This Request for Proposal ('RFP') does not constitute a binding agreement or an offer or invitation by the Punjab Metrobus Authority (PMA) to any party other than the qualified Bidders to submit the Bids. The principle purpose of this RFP is to provide the Bidders with information that shall form the basis of their proposals or bids. This RFP contains the minimum requirements and information desired by the Authority. The contents hereof may be supplemented by the Authority as it deems appropriate. Each Bidder may conduct its own investigations and analysis and check the accuracy, reliability and completeness of the information given in this RFP to its satisfaction. The Authority makes no representation or warranty and shall incur no liability under any law, rules or regulations as to the accuracy, reliability or completeness of the RFP. The Authority may, at its sole discretion but without being under any obligation to do so, update, improve or supplement the information in this RFP.
- Bidders must ensure that they submit all the required documents indicated in the Bidding Documents without fail. Bids received without valid documentary evidence, supporting documents and various requirements mentioned in the Bidding Documents are liable to be rejected at the initial stage. It is intimated that no objection/revision/supplement shall be entertained regarding the terms and conditions of the Bidding Documents submitted by the Bidder.
- The Bidders are requested to access the website of Punjab Procurement Regulatory Authority (http://www.ppra.punjab.gov.pk) or the Punjab Metrobus Authority (www.pma.punjab.gov.pk) for all updates on this RFP such as addendums etc.

SECTION 1: INVITATION TO BID (ITB)

- 1. The Punjab Metrobus Authority (PMA) of the Government of the Punjab (GoPb) invites proposals to provide the consulting services to conduct "Transport Modeling and Feasibility Study for Mass Transit System in Multan". Details about the required services are provided in section 5: Terms of Reference.
- 2. The Consultant will be selected using a Single Stage Two Envelope Process and procedures described in this RFP, in accordance with the Punjab Procurement Regulatory Authority (PPRA) Rules which may be downloaded from www.ppra.punjab.gov.pk.
- 3. The RFP includes the following additional documents:

Section 2 - Instructions to Consultants (including Data Sheet)

Section 3 - Technical Proposal - Standard Forms

Section 4 - Financial Proposal - Standard Forms

Section 5 - Terms of Reference

Section 6 - Technical Evaluation Criteria

Section 7 - Draft Agreement

- 4. It is mandatory for bidders to submit proposals using the Standard Forms furnished in Section 3 and Section 4 of this RFP. Proposals that are not submitted in the prescribed format may be discarded. If any information required in the forms is found missing or written elsewhere, no credit shall be given in the relevant section of the evaluation.
- 5. All Bidders must furnish Bid Security, equal to PKR 2.5 Million, in the shape of a Demand Draft/Pay Order, issued by a bank scheduled in Pakistan, in favor of "Punjab Metrobus Authority Fund Account", in Pak Rupees (PKR), as part of the Technical Proposal, failing which shall cause rejection of the bid (Also see Clause no. 9 in Section 2)
- 6. All bidders shall submit the following documents/information as part of their proposal;
 - i. Certificate of registration of the firm as a legal entity (in its Country of Origin);
 - ii. Registration of firm with relevant professional body i.e. Pakistan Engineering Council (PEC) in the relevant category as a Consultant;
 - iii. Memorandum(s) of Understanding between the lead partner and associate(s) to substantiate the forming of JV (if applicable);
 - iv. Copy of Registration with the Income Tax Department (in its Country of

Origin);

- v. Audited annual financial statements for the last three (3) years;
- vi. An Affidavit/sworn statement that the firm is not blacklisted or debarred by any Government / Semi-Government / Autonomous/ International Body
- 7. Firms should submit details of five (5) of their most recent and most relevant assignments for technical evaluation using the format prescribed in Section 3 of this RFP. Assignments submitted beyond the given number will not be considered.
- 8. CVs of key personnel corresponding to the list provided in the Data Sheet must be submitted to provide details of five(5) relevant projects undertaken by the individual in the past.
- 9. The Client shall hold a pre-bid conference at 1100 hours on September 10, 2013, at its office. Interested Consultants are strongly encouraged to attend the pre-bid conference.

SECTION 2: INSTRUCTIONS TO CONSULTANTS

Definitions

- (a) "Applicable Law" means the law of Government of Pakistan/Government of the Punjab and as those may be issued and enforced from time to time.
- (b) "RFP" means the Request for Proposal to be prepared by the Client for the selection of Consultants, based on the Standard RFP.
- (c) "Agreement" means the Agreement signed by the Parties and all the attached documents.
- (d) "Client" means the organization with which the selected Consultant signs the Agreement for the Services.
- (e) "Consultant" means any registered concern/entity that may provide or provides the Services to the Client under the Agreement.
- (f) "Data Sheet" means such part of the "Instructions to Consultants" section of this RFP used to reflect specific conditions provided.
- (g) "Day" means calendar day.
- (h) GoPb shall mean The Government of the Punjab
- (i) GoP shall mean The Government of Pakistan
- (j) "Instructions to Consultants" means the document which provides Consultants with all information needed to prepare their Proposals.
- (k) "ITB" means the Invitation To Bid included in the RFP as Section 1.
- (I) "Personnel" means professionals and support staff provided by the Consultant or by any Sub-Consultant and assigned to perform the Services or any part thereof; "Foreign Personnel" means such professionals and support staff who at the time of being so provided had their domicile outside Pakistan; "Local Personnel" means such professionals and support staff who at the time of being so provided had their domicile inside Pakistan.
- (m) "Sub-Consultant" means any person or entity to whom the Consultant subcontracts any part of the Services required under this RFP.
- (n) "Proposal" means the Technical Proposal and the Financial Proposal being submitted in response to this RFP .
- (o) "Services" means the work to be performed by the Consultant pursuant to the Agreement.
- (p) "Terms of Reference" (TOR) means the document included in the RFP as Section 5 which explains the objectives, scope of work, activities, tasks to be performed,

respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.

1. INTRODUCTION

- 1.1. **Client:** The Client named in the Data Sheet will select a consulting firm/organization (the Consultant) in accordance with the method of selection specified in the Data Sheet.
- 1.2. **Proposal Submission Method:** The Consultants are invited to submit a Technical Proposal and a Financial Proposal for consulting services required for the assignment named in the Data Sheet. The proposals should be in separate marked and sealed envelopes. The Proposal and this RFP document will form the basis for a contractual agreement to be signed with the selected Consultant.
- 1.3. **Pre-Bid Conference:** The Consultants should familiarize themselves with assignment conditions and take them into account in preparing their Proposals. To obtain first-hand information on the assignment, Consultants are encouraged to visit the Client before submitting a proposal and to attend pre-bid conference specified in the Invitation to Bid section of this RFP. Attending the pre-bid conference is optional. Consultants should contact the Client's representative named in the Data Sheet to obtain additional information on the pre-bid conference. Consultants should ensure these officials are informed well-ahead of time in case they wish to visit the Client.
- 1.4. **Inputs and Facilities from Client:** The Client will timely provide, at no cost, to the Consultants the inputs and facilities specified in the Data Sheet, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.
- 1.5. **Proposal Preparation Cost Liability:** The Consultants shall bear all costs associated with the preparation and submission of their proposals and the subsequent agreement. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Agreement award, without thereby incurring any liability to the Consultants.
- 1.6. **Conflict of Interest:** The GoPb's policy requires that Consultants provide professional, objective, and impartial advice and at all times hold the Client's interests paramount, strictly avoid conflicts with other assignments or their own corporate interests and act without any consideration for future work.

- 1.6.1. Without limitation on the generality of the foregoing, Consultants, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:
 - (a) **Conflicting Activities:** 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; and vice versa. For the purpose of this Clause, services other than consulting services are defined as those leading to a measurable physical output, for example, exploratory drilling, aerial photography, and satellite imagery.
 - (b) Conflicting Assignments: A Consultant (including its Personnel and Sub-Consultants) or any of its affiliates 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 Client. 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 Client in the privatization of public assets shall not purchase, nor advise purchasers of, such assets. Similarly, a Consultant hired to prepare Terms of Reference for an assignment shall not be hired for the assignment in question.
 - (c) **Conflicting Relationships:** A Consultant (including its Personnel and Sub-Consultants) that has a business or family relationship with a member of the Client'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 Agreement, may not be awarded an Agreement, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Client throughout the selection process and the execution of the Agreement.
- 1.6.2. Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of the Client, or that may reasonably be perceived as having

- this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Agreement.
- 1.6.3. No agency or current employees of the Client shall work as Consultants under their own Ministries, Departments or Agencies. Recruiting former government employees of the Client to work for their former Ministries, Departments or Agencies is acceptable provided no conflict of interest When the Consultant nominates any government employee as exists. Personnel in their technical proposal, such Personnel must have their government or employer confirming written certification from from their official position and that they are on leave without pay allowed to work full-time outside of their previous official position. Such certification shall be provided to the Client by the Consultant as part of his technical proposal.
- 1.6.4. **Unfair Advantage:** If a Consultant (A) could derive a competitive advantage by having previously provided consulting services related to the assignment in question, the Client shall make every effort to disseminate such information or the source of such information to all interested Consultants, which in that respect could otherwise give Consultant (A) any competitive advantage over the other competing Consultants.
- 1.7. **Fraud and Corruption:** The GoPb requires Consultants participating in its projects to adhere to the highest ethical standards, both during the selection process and throughout the execution of an agreement. For the purpose of this Clause, the GoPb:
 - (a) defines the following terms:
 - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in agreement execution;
 - (ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a selection process or the execution of a agreement;
 - (iii) "collusive practices" means a scheme or arrangement between two or more consultants with or without the knowledge of the Client, designed to establish prices at artificial, noncompetitive levels;

- (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a agreement.
- (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 or coercive practices in competing for the agreement in question;
- (c) will sanction a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a GoPb agreement if at any time it 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 GoPb agreement; and
- (d) will have the right to require that a provision be included requiring Consultants to unconditionally allow inspection of their accounts and records and other documents relating to the submission of proposals and agreement performance, and have them audited by auditors appointed by the GoPb.
- 1.8. Consultants, their Sub-Consultants, and their associates shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the GoPb in accordance with the Clause no. 1.7. Furthermore, the Consultants shall be aware of the provisions on fraud and corruption stated in the specific clauses in the General Conditions of Agreement.
- 1.9. 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 Agreement, as requested in the Financial Proposal submission form (Section 4).
- 1.10. **Only One Proposal:** Consultants may only submit one proposal. If a Consultant submits or participates in more than one proposal, such proposals shall be disqualified.
- 1.11. **Proposal Validity:** The Data Sheet indicates how long Consultants' Proposals must remain valid after the submission date. During this period, Consultants shall maintain the availability of Professional staff nominated in the Proposal. Should the need arise, however, the Client may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultants could submit new staff in replacement, who would be considered in the final evaluation for

- agreement/award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals without forfeiture of their Bid Security.
- 1.12. **Eligibility of Sub-Consultants:** In case a Consultant intends to associate with other Consultants/Individual expert(s) who have not been selected, such associations shall be initiated subject to the written approval of the client.

2. CLARIFICATION AND AMENDMENT OF RFP DOCUMENTS

- 2.1. Consultants may request a clarification of any of the RFP documents up to the date of the pre-bid conference. Any request for clarification must be sent in writing, or by standard electronic means to the Client's address indicated in the Data Sheet, or be raised during the pre-bid conference. The Client shall document all such queries and respond in writing, or by standard electronic means, or verbally during the pre-bid conference. Pursuant to the pre-bid conference, the client shall also upload, within 2 days, a consolidated document containing queries raised before/or during the pre-bid conference, their responses and origin of query. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under Clause no. 2.2.
- 2.2. At any time before the date of submission of Proposals, the Client may amend the RFP by issuing an addendum in writing and make it available on the websites of PPRA, and PMA. Information contained in the addendum shall supersede relevant sections of previous RFP document and accordingly a revised RFP document shall be uploaded on the aforementioned websites. To give Consultants reasonable time to take into account a material amendment, in preparing their Proposals, the Client may extend the deadline for the submission of Proposals as deemed necessary. It is the sole responsibility of Bidders to stay abreast with all such addendums by frequently visiting the above websites.

3. PREPARATION OF PROPOSALS

- 3.1. **Language:** The Proposal (see Clause no. 1.2), supporting documents, and related correspondence exchanged by the Consultants and the Client, shall be written in English.
- 3.2. In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the required information may result in rejection of a Proposal.
- 3.3. While preparing the Technical Proposal, Consultants must give particular attention to the following:
 - (a) A Consultant may enhance its expertise for the assignment by associating with other Consultants in a joint venture or sub-

consultancy. A maximum of three (3) consultancy firms/entities may join to form a JV. Any associations must be clearly indicated in the technical proposal. In case of a JV, all partners shall be jointly and severally liable and shall indicate who will act as the leader of the joint venture.

- (b) This is a fixed-budget assignments for the given Terms of Reference. Additional payment will be made if additional services are requested.
- (c) Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- 3.4. **Technical Proposal and Format Content:** The Technical Proposal shall provide the information indicated in the following sub-clauses from (a) to (g) using the attached Standard Forms (Section 3). Please also refer to Sub-clause (c) for the description of the approach, methodology and work plan of the Technical Proposal. The maximum number of pages for the approach, methodology and workplan are specified in Data Sheet. A page is considered to be one printed side of A4 or letter size paper.
 - A brief description of the Consultants' organization and an outline of (a) recent experience of the Consultants (each partner in case of joint venture) on assignments of similar nature is required in Form TECH-2 of Section 3. For each assignment, the outline should indicate the names of Sub-Consultants/ Professional staff who participated, duration of the assignment, agreement amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultant was legally engaged as a firm or as one of the major firms within a joint 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 Client. Consultants shall provide details for a maximum number of previous similar assignments as mentioned in the Data Sheet.
 - (b) Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/ effectiveness of the assignment; (Form TECH-3 of Section 3).
 - (c) A description of the approach, methodology and work plan for performing the assignment covering the following subjects: technical approach and methodology, work plan, and organization & 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 the timing proposed for each activity in the form of a bar chart.
- (d) The list of the proposed Professional staff by area of expertise, along with task and the position to be assigned to each staff member (Form TECH-5 of Section 3).
- (e) Estimates of the staff input (staff-months of foreign and local professionals) needed to carry out the assignment (Form TECH-7 of Section 3). The staff-months input should be indicated separately for home office and field activities, and for foreign and local Professional staff.
- (f) CVs of the Professional staff signed by the staff themselves or by the authorized representative of the Professional Staff (Form TECH-6 of Section 3) along with their Computerized National Identity Card numbers (if local) or Passport numbers (if foreign). CVs shall contain the description of project experience of the professional staff for a maximum number of projects and in the number of years as mentioned in the Data Sheet.
- (g) A detailed description of the proposed methodology and staffing for training (also see Data Sheet 3.4 (g))
- 3.5. The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non-responsive.
- 3.6. **Financial Proposal:** The Financial Proposal shall be prepared using the Standard Forms (Section 4). It shall list all costs associated with the assignment, including remuneration for staff (foreign and local, in the field and at the Consultants' home office). These costs shall be broken down by activity (see Data Sheet) and if applicable, into foreign and local expenditures. All activities and items described in the Technical Proposal must be priced separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.
- 3.7. **Taxes:** The Consultant may be subject to local taxes (such as: value added or sales tax or income taxes on non-resident Foreign Personnel, duties, fees, levies) on amounts payable by the Client under the Agreement. Payment of all taxes, duties and other impositions as may be levied under the applicable law in respect of the JV, Consultant, sub-Consultants, and their Personnel (both local and expatriate including their family members and their belongings) shall not be responsibility of the Client (see Data Sheet). Furthermore, the price quoted by the Consultant in their Financial Proposal shall be inclusive of General Sales Tax (GST) on Services in accordance with the Applicable Law.

- 3.8. **Currency:** Consultants must express their bids in Pakistan Rupees (PKR).
- 3.9. **Commissions and Gratuities:** Commissions and gratuities related to the assignment, if any, paid or to be paid by Consultants will be listed in the Financial Proposal Form FIN-1 of Section 4.

4. SUBMISSION, RECEIPT AND OPENING OF PROPOSALS

- 4.1. The original proposal (Technical Proposal and Financial Proposal; see Clause no. 1.2) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultants themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of Section 3, and FIN-1 of Section 4.
- 4.2. An authorized representative of the Consultants shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign. The signed Technical and Financial Proposals shall be marked "Original.".
- 4.3. The Technical Proposal shall be marked "ORIGINAL" or "DUPLICATE" as appropriate. Original and required number of copies(duplicates) of the Technical Proposal (as specified in the Data Sheet) shall be sent to the addresses referred to in Clause no. 4.7. All required copies(duplicates) of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies(duplicates) of the Technical Proposal, the original governs.
- 4.4. The Bidder shall follow the instructions laid down as under:
 - 4.4.1. The Bidder shall seal the Original Technical Proposal in an envelope duly marked as under:

Envelope No. 1A: Original Technical Proposal for Project Name. [Name of Assignment]

[Name of the Client]
[Address of the Client]

[Name of the Bidder] [Address of the Bidder] [Phone No. of the Bidder]

4.4.2. The Bidder shall seal the Duplicate Technical Proposal in an envelope duly marked as under:

Envelope No. 1B: Duplicate Technical Proposal for Project Name. [Name of Assignment]
[Name of the Client]
[Address of the Client]

[Name of the Bidder]
[Address of the Bidder]
[Phone No. of the Bidder]

4.4.3. The Bidder shall seal the Original Financial Proposal in an envelope duly marked as under:

Envelope No. 2A: Original Financial Proposal for Project Name. [Name of Assignment]

"Do Not Open With The Technical Proposal"

[Name of the Client]

[Address of the Client]

[Name of the Bidder]
[Address of the Bidder]
[Phone No. of the Bidder]

4.4.4. The Bidder shall seal the Duplicate Financial Proposal in an envelope duly marked as under:

Envelope No. 2B: Duplicate Financial Proposal for Project Name. [Name of Assignment] "Do Not Open With The Technical Proposal" [Name of the Client] [Address of the Client]

[Name of the Bidder] [Address of the Bidder] [Phone No. of the Bidder]

4.4.5. The Bidder shall again seal in a covering envelope the sealed envelopes of Original Technical Proposal and the Original Financial Proposal, duly marking the envelope as under:

Envelope No. (1+2)A: Original Bid for Project Name. [Name of Assignment] Strictly Confidential Open on [Last Date of submission of the Bid] [Name of the Client] [Address of the Client] [Name of the Bidder]
[Address of the Bidder]
[Phone No. of the Bidder]

4.4.6. Similarly, the Bidder shall again seal in a covering envelope the sealed envelopes of Duplicate Technical Proposal and the Duplicate Financial Proposal, duly marking the envelope as under:

Envelope No. (1+2)B: Duplicate Bid for Project Name. [Name of Assignment] Strictly Confidential [Name of the Client] [Address of the Client]

[Name of the Bidder]
[Address of the Bidder]
[Phone No. of the Bidder]

- 4.5. The Bidder shall again seal Envelope Nos. (1+2)A, and (1+2)B in another single envelope titled [Name of Assignment].
- 4.6. The Bidder shall enclose soft copies of the Technical Proposal and the Financial Proposal in their respective Envelopes, including all Forms, Annexes, Schedules, Charts, Drawings, Documents, Brochures, Literature, etc., in the form of MS Word & PDF Documents, MS Excel Worksheets and Scanned images, with the hard copies on a media such as DVD or USB and enclose it in the relevant proposal envelopes.
- 4.7. The Proposals must be sent to the address/addresses indicated in the Data Sheet and received by the Client no later than the time and the date indicated in the Data Sheet, or any extension to this date in accordance with Clause no. 2.2. Any proposal received by the Client after the deadline for submission shall be returned unopened.
- 4.8. The Client shall initially open the outermost envelope and retrieve envelopes marked (1+2)A and (1+2)B, the latter envelope to be kept sealed and set aside for record. The sub-envelope (1+2)A shall be opened as follows:
 - (a) Envelopes 1A and 2A shall be retrieved from the sub-envelope marked (1+2)A.
 - (b) Initially, only the ENVELOPE NO. 1A marked TECHNICAL PROPOSAL shall be opened, along with the Bid Security, and evaluated in a manner as per the clauses mentioned in this document; and proposals which do not conform to the specified requirements as listed in said document will be rejected.

- (c) ENVELOPE NO. 2A shall be retained in the custody of the Client without being opened;
- (d) During the technical evaluation no amendments in the technical proposal shall be permitted;
- (e) The ENVELOPE NO. 2A: FINANCIAL PROPOSAL of technically qualified bidders shall be opened publicly at a time, date and venue announced and communicated to the bidders after completing the Technical Evaluation process;
- (f) The technically qualified bidder with the lowest financial bid will be the successful bidder, subject to necessary approval.

The Punjab Metrobus Authority will invite the successful bidder to enter into an agreement to conduct Transport Modeling and Feasibility Study for Mass Transit System in Multan City.

5. PROPOSAL EVALUATION

- 5.1. From the time the Proposals are opened to the time the Agreement is awarded, the Consultants should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by Consultants to influence the Client in the examination, evaluation, ranking of Proposals, and recommendation for award of Agreement may result in the rejection of the Consultants' Proposals.
 - Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
- 5.2. **Evaluation of Technical Proposals:** 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 and section 6 of this document. Each responsive Proposal will be given a technical score (S_t). 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.
- 5.3. **Public Opening and Evaluation of Financial Proposals:** After the technical evaluation is completed, the Client shall inform the technical scores to Consultants who have submitted proposals, and shall notify those Consultants whose Proposals did not meet the minimum qualifying mark or were considered non-responsive to the RFP and TOR, that their Financial Proposals will be returned unopened after completing the selection process. The bid security of technically unsuccessful bidders will also be returned after completion of the selection process. The Client shall simultaneously notify in writing Consultants that have secured the minimum qualifying marks, the date, time and location for opening the Financial Proposals.

- 5.4. 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 have met the minimum qualifying marks will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall then be opened, and the total prices read aloud and recorded.
- 5.5. The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between figures and words, the latter will prevail. In addition to the above corrections, as indicated under Clause no. 3.6, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.
- 5.6. The Client will select the lowest financial proposal among those that passed the minimum technical score. The evaluated proposal price according to Clause no. 5.5 shall be considered, and the selected firm shall be invited to enter into an agreement, subject to necessary approvals.

6. AVAILABILITY OF PROFESSIONAL STAFF/EXPERTS

6.1. Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the Client expects to finalize an Agreement on the basis of the Professional staff named in the Proposal. At the time of signing of the Agreement, the Client shall require assurance regarding the confirmed availability of the named Professional staff. The Client shall not consider substitutions during agreement stage unless both the parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity of the Staff member being substituted. If this is not the case and if it is established, beyond any reasonable doubt, that Professional staff were offered in the proposal without confirming their availability; or if any substitute proposed is not a holder of an equivalent or better qualification(s) and experience than the original candidate; the Consultant shall be disqualified and Bid Security shall be forfeited accordingly.

7. AWARD OF AGREEMENT

- 7.1. Upon conclusion of the procurement process, the Client shall, subject to necessary approvals, award the Agreement to the selected Consultant. After signing of the Agreement, the Client shall return the unopened Financial Proposals to the unsuccessful Consultants. In addition, the Client shall return the Bid Security of all unsuccessful Consultants.
- 7.2. The selected Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.

8. CONFIDENTIALITY

8.1. Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who have submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of the Agreement. If it is established, beyond any reasonable doubt, that a Consultant has exploited the selection process by any means or divulged confidential information acquired during the selection process, the said Consultant shall be disqualified along with forfeiture of its Bid Security. In addition, the provisions of the PPRA Rules relating to fraud and corruption shall be invoked.

9. BID SECURITY

- 9.1. The proceeds of the bid Security shall be payable to the client, on the occurrence of any one of the following:
 - (i) if the consultant withdraws the bid during the bid validity period specified in the Data Sheet;
 - (ii) if the consultant does not accept the correction of total bid price as per Clause no. 5.5 of Section 2 of this RFP;
 - (iii) if the consultant, having been notified as a successful bidder, refuses to sign the agreement within the timeframe specified in Data Sheet or as mutually agreed with the Client;
 - (iv) if the professionals whose CVs are submitted in the technical proposal or professionals of equivalent or better professional calibre are not made available by the consultant before signing of the agreement as per Clause no. 6.1;
 - (v) if the successful Consultant fails or refuses to furnish the Performance Guarantee as specified in Clause 10;
 - (vi) if it is established, beyond any reasonable doubt, that a Consultant has exploited the selection process by any means or divulged confidential information acquired during the selection process.

10.Performance Guarantee

10.1. Successful bidder shall submit a performance guarantee in the form of a Bank Guarantee or a Pay Order/Demand Draft in favour of "Punjab Metrobus Authority Fund Account" for an amount equivalent to 5% of the bid value; issued by a bank scheduled in Pakistan; within ten [10] working days from the issuance of letter of award by the client.

10.2. The bid security of the successful bidder shall be returned upon satisfactory submission of performance guarantee in the required format by the bidder.

11. Special Conditions

11.1. If the results of Mass Transit Network Study conclude that the mode for priority line is BRT and not LRT or MRT, then for the purpose of subsequent payments, the financial bid value proposed by the successful bidder and accepted by the Client in the letter of award will be reduced as per Clause 5.2 of Section 7 to arrive at a new contract price of no more than 80% of the bid value.

DATA SHEET

Clause Reference	
1.1	Name of the Client: The Punjab Metrobus Authority (PMA) Method of Selection: Single Stage: Two Envelope Process - Stage 1: Technical Evaluation requiring a qualifying score of seventy (70) or more followed by Stage 2: Lowest Evaluated Bid
1.2	Technical and Financial Proposal to be submitted in separate sealed envelopes both enclosed in a single envelope. Bid security required to be submitted as a part of the technical envelope. Name of the assignment is: Transport Modeling and Feasibility Study for Mass Transit System in Multan
1.3	A pre-bid conference will be held: Yes √ No 10th September 2013, 1100 Hours PST at Punjab Metrobus Authority, 5th Floor, Arfa Software Technology Park, 346-B Ferozepur Road Lahore, Pakistan The Client's representative is: Dr. Shamas Bajwa Address: 5th Floor, Arfa Software Technology Park, 346-B Ferozepur Road Lahore, Pakistan Telephone: +92-42-35880136 Facsimile: +92-42-99232541 E-mail: pmatechadvisor@gmail.com
1.4	The Client will provide the following inputs and facilities: No data regarding transport models, & surveys are available. Limited policy documents are available only. Available Documents: i) Multan Master Plan 2008-2028

1.11	Proposals must remain valid for 90 days from the date of bid opening or until: 1 January 2014; whichever is later.							
2.1	Clarifications may be requested before or during the pre-bid conference. Queries received after the pre-bid conference shall not be entertained. The address for requesting clarifications is:							
	Facsimile: <u>+92-42-99232541</u> E-mail: <u>pmatechadvisor@gmail.com</u>							
3.4	Maximum number of pages for approach, methodology, and workplan: 50 pages							
3.4 (a)	Firms must submit details of <u>five (5)</u> similar assignments.							
3.4 (f)	CVs must contain details on <u>five (5)</u> relevant projects done by the individual in the past <u>ten (10)</u> years.							
3.4 (g)	Training is a specific component of this assignment: Yes √ No: <u>Use</u> of Travel Demand Forecasting Software & Model Developed in this study							
3.6	All the reimbursable direct costs to be indicated by the Consultants covering:							
	(1) a per diem allowance in respect of Personnel of the Consultant for every day in which the Personnel shall be absent from the home office;							
	(2) cost of necessary travel, including transportation of the Personnel by the most appropriate means of transport and the most direct practicable route;							
	(3) cost of office accommodation, investigations and surveys;							
	(4) cost of applicable international or local communications such as the use of telephone and facsimile required for the purpose of the Services;							
	(5) cost, rental and freight of any instruments or equipment required to be provided by the Consultants for the purposes of the Services;							
	(6) cost of printing and dispatching of the reports to be produced for the Services;							

	(7) other allowances where applicable and provisional or fixed sums (if any); and
	(8) cost of such further items required for purposes of the Services not covered in the foregoing.
3.7	Amounts payable by the Client to the Consultant under the agreement to be subject to local taxation: Yes $\sqrt{}$ No
	If affirmative, the Client shall:
	(a) reimburse the Consultant for any such taxes paid by the Consultant: NO ; or
	(b) pay such taxes on behalf of the Consultant: NO
	(c) deduct such taxes at source, in accordance with applicable tax laws/rules, while making payments to the Consultant throughout the currency of the agreement: YES
4.3	Consultant must submit the original Technical Proposal, and Financial Proposal and one copy of each marked as duplicate.
4.7	The Proposal submission address is: <u>Secretary, The Punjab Metrobus</u> <u>Authority, 5th floor, Arfa Software Technology Park, 346-B Ferozepur Road, Lahore, Pakistan</u>
	Proposals must be submitted no later than the following date and time: <u>11th</u> <u>October, 2013 at 1100 hours PST</u>
5.2	Criteria, sub-criteria, and point system for the evaluation of Technical Proposals are as per section 6:
	Points
	(i) Company Profile: [100]
	a) Number of similar assignments [45]
	b) Value of similar assignments [45]
	c) Organizational structure [10]
	I

	Total = A_1
(ii) Project Team:	[100]
a) Team Leader	[20]
b) Transport Planner	[15]
c) Traffic Survey Expert	[5]
d) Transport Modeler	[10]
e) Road Engineer	[<i>5</i>]
f) Traffic Engineer/Modeler	[5]
g) Landuse Planner	[5]
h) Financial & Economic Analyst	[<i>5</i>]
i) Legal/ Contract Specialist	[<i>5</i>]
j) Environmental/CDM Specialist	[5]
k) Track Engineer	[5]
l) Signalling Expert	[5]
m) Electrical/Traction Expert	[<i>5</i>]
n) Mechanical Expert	[5]
	Total = A_2
The number of points to be assigned to each of the disciplines shall be determined considering the force:	
1) Education and qualifications	[25]
2) Relevant background	[<i>70</i>]
3) Time with firm	[<i>5</i>]
	_

	Total score: 100						
	(iii) Approach & Methodology: [100]						
	a) Understanding & Innovativeness [50]						
	b) Methodology & Work plan [50]						
	b) Methodology & Work plan						
	Total = A_3						
	Technical Score(S _t) = $\frac{A_1[35]}{100} + \frac{A_2[45]}{100} + \frac{A_3[20]}{100}$						
	 The minimum technical score (St) required to pass is: seventy (70) Points Minimum 50% marks are mandatory in each of (i), (ii) and (iii). 						
5.4	Financial proposals of only technically qualified bidders shall be opened. Bidder offering the Lowest Evaluated Bid shall be considered as successful bidder, subject to necessary approvals.						
6.1	Expected date and address for signing of the agreement: 22nd October 2013 at The Punjab Metrobus Authority, 5th Floor, Arfa Software Technology Park, 346-B Ferozepur Road Lahore, Pakistan						
7.2	Expected date for commencement of consulting services: 1st November 2013						

SECTION 3: TECHNICAL PROPOSAL - STANDARD FORMS

Refer to Clause no. 3.4 of the Data Sheet for format of Technical Proposal to be submitted, and Clause no. 3.4 of Section 2 of the RFP for Standard Forms required and number of pages recommended.

FORM TECH-1 TECHNICAL PROPOSAL SUBMISSION FORM

[Location,

Date]

To: [Name and address of Client]
Dear Sir,
We, the undersigned, offer to provide the consulting services fo [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Proposal. 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 fulname and address of each associated Consultant] 1
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 the agreement is signed during the period of validity of the Proposal i.e., before the date indicated in Clause no. 1.11 of the Data Sheet, Our Proposal is binding upon us.
We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in Clause no. 7.2 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]:

^{1 [}Delete in case no association is foreseen.]

FORM TECH-2 CONSULTANT'S ORGANIZATION AND EXPERIENCE

A - Consultant's Organization

[Provide here a brief (three pages) description of the background and organization of your firm/entity (including organogram) and each associate for this assignment.]

- 1. Firm Background:
- 2. Chief Executive Officer
- 3. Board of Directors / Partners.
- 4. Departmental Structure of the Firm.
- 5. Organogram

A-I,

Whether your firm is ISO Certified? If so provide a copy of ISO Certification.

B - Consultant's Experience

[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this Assignment. Use maximum 20 pages. Please provide Client's certification and/or evidence of the contract agreement.]

Assignment name:	Cost of the Project				
Country: Location within country:	Duration of assignment (months):				
Name of Client:	Total N° of staff-months (by your firm) on the assignment:				
Start date (month/year): Completion date (month/year):	1. Total value of the consultancy agreement 2. Value of consultancy services provided by your firm under the agreement (in current PKR or US\$):				
Name of associated Consultants, if any:	N° of professional staff-months provided by associated Consultants:				
Name of senior professional staff of your firm in significant profiles such as Project Director/Coordinates					
Narrative description of Project(You may attach one extra sheet-one side only):					
Description of actual services provided by your staff	within the assignment:				
 Firms Name:	k was successfully completed by the consultant.				

FORM TECH-3 COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE PROVIDED BY THE CLIENT

On the Terms of Reference

[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.] (You may attach one extra sheet-one side only):

FORM TECH-4 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 (50 pages, inclusive of charts and diagrams) divided into the following three chapters:

- a) Technical Approach and Methodology, b) Work Plan, andc) Organization and Staffing,
- a) <u>Technical Approach and Methodology.</u> 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. The work plan should be consistent with the Work Schedule of Form TECH-8.
- c) <u>Organization and Staffing.</u> 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.]

FORM TECH-5 TEAM COMPOSITION AND TASK ASSIGNMENTS

rofessional Staff							
Name of Staff	CNIC	No./Passport	Firm	Area of Expertise	Position	Task Assigned	

FORM TECH-6 CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Name of Staff [Insert full name]:									
CNIC No (if Pakistani):									
Degree Major/Minor Institution Date (MM/Y) Membership of Professional Associations: Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and write the significant training since degrees under 6 - Education were obtained]: Employment Record [Starting with present position, list in reverse order every employment helpser since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:	onali	ılity	y : _						
Degree Major/Minor Institution Date (MM/Y) Membership of Professional Associations: Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and write the since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:	asspo	por	rt N	o: _					
Membership of Professional Associations: Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and wri Employment Record [Starting with present position, list in reverse order every employment helpher since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:									
Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and wri Employment Record [Starting with present position, list in reverse order every employment helpser since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:					Da	ate ((ММ	I/YY	YY)
Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and wri Employment Record [Starting with present position, list in reverse order every employment helder since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:					+				
Other Training [Indicate significant training since degrees under 6 - Education were obtained]: Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and wri Employment Record [Starting with present position, list in reverse order every employment helder since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:					\dagger				
Employment Record [Starting with present position, list in reverse order every employment hell there since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:	 er 6 - Ed	· Edu	ucati	ion v	were	e obt	taine	 ?d]: _	
Employment Record [Starting with present position, list in reverse order every employment hell the since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:									
aber since graduation, giving for each employment (see format here below): dates of employment, loying organization, positions held.]:	oor in s	in spe	 eaki	ing, 1	read	ding,	and	writi	 ng]:
Employer Position From (MM/YYYY) To (MM/Y)									
				/VV)) '	To ((MM	I/YY	YY)
	m (Ml	MM/	/YY	11)		•			

11. Detailed Tasks Assigned	
[List all tasks to be performed under this assignment]	
40 W 1 W 1 . 1 . 1 . 1 . 1 . 1	
12. Work Undertaken that Best Illustrates	Capability to Handle the Tasks Assigned
[Among the assignments in which the staff has been invo assignments that best illustrate staff capability to handle	
1)Name of assignment or project & Location:	Cost of Project
Date of Start:	Date of Completion:
Actual time spent on the project:	in months.
Client:	_Main project features:
Positions held:	
Activities performed:	
2)Name of assignment or project:	
Year:	
Location:	
Client:	
Main project features:	
Positions held:	
Activities performed:	

3) Name of assignment or project:	
Year:	
Location:	
Client:	
Main project features:	
Positions held:	
Activities performed:	_
[Unroll the project details group and continue numbering (4, 5,) as many times as is required]	
13. Certification:	
I, the undersigned, certify that to the best of my knowledge and belief, this describes myself, my qualifications, and my experience. I understand willful misstatement described herein may lead to my disqualification or dismissal,	that any
Date:	y/Month/Year
Full name of authorized representative(attach authority letter):	

FORM TECH-7 STAFFING SCHEDULE¹

																Full tim Part tim
	Year:															
N°	Name of Staff				Staff	input ((in the	form of	a bar c	hart) ²				Total s	taff-mont	h input
IN -	Name of Staff	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Home	Field ³	Total
Forei	gn			_		_				_						
1		[Home] [Field]													-	
2															•	
3															-	
n															×	
I		I		I		I	I		1	ı	Subto	tal	ı	1110		
Local																
1		Home] [Field]												I		
2															v	
n														¥	×	
											Subto	tal		W	-	
											Total			I ₩	F	

- 1 For 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. For each staff indicate separately staff input for home and field work.
- 3 Field work means work carried out at a place other than the Consultant's home office.

FORM TECH-8 WORK SCHEDULE

	Year:												
N°	Activity ¹	Months ²											
N	Activity	Nov- 13	Dec-	Jan- 14	Feb- 14	Mar- 14	Apr- 14	May- 14	Jun- 14	Jul- 14	Aug-	Sep- 14	Oct- 14
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 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

SECTION 4: FINANCIAL PROPOSAL - STANDARD FORMS

[Comments within brackets [] provide guidance to the shortlisted 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 Clause no. 3.6 of Section 2.

FIN-1	Financial Proposal Submission Form
FIN-2	Summary of Costs
FIN-3	Breakdown of Costs by Activity
FIN-4	Breakdown of Remuneration
FIN-5	Reimbursable expenses

FORM FIN-1 FINANCIAL PROPOSAL SUBMISSION FORM

	[Location, Date]
То:	[Name and address of Client]
-	
Dear S	Sir,
Techn	We, the undersigned, offer to provide the consulting services for [Insert title of ment] in accordance with your Request for Proposal dated [Insert Date] and our ical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) rds and figures ¹]. This amount is inclusive of all the taxes.
period	Our Financial Proposal shall be binding upon us up to the expiry of the validity d of the Proposal, i.e. before the date indicated in Clause no. 1.11 of the Data Sheet.
to this	No commissions or gratuities have been or are to be paid by us to agents relating Proposal and Agreement execution.
	We understand you are not bound to accept any Proposal you receive.
	We remain,
	Yours sincerely,
	Authorized Signature [In full and initials]:

FORM FIN-2 SUMMARY OF COSTS

	Costs			
Item	Pak Rupees			
Total Costs of Financial Proposal ¹				

1 Indicate the total costs inclusive of local taxes, to be paid by the Client in each currency. Such total costs must coincide with the sum of the relevant Subtotals indicated in all Forms FIN-3 provided with the Proposal.

FORM FIN-3 Breakdown of Costs by Activity¹

Group of Activities (Phase):2	Description: ³
Cost component	Costs
cost component	Pak Rupees
Remuneration ⁴	
Reimbursable Expenses ⁴	
Subtotals	

- 1 Form FIN-3 shall be filled at least for the whole assignment. In case some of the activities require different modes of billing and payment (e.g.: the assignment is phased, and each phase has a different payment schedule), the Consultant shall fill a separate Form FIN-3 for each group of activities. The sum of the relevant Subtotals of all Forms FIN-3 provided must coincide with the Total Costs of Financial Proposal indicated in Form FIN-2.
- 2 Names of activities (phase) should be the same as, or correspond to the ones indicated in the second column of Form TECH-8.
- 3 Short description of the activities whose cost breakdown is provided in this Form.
- 4 Remuneration and Reimbursable Expenses must respectively coincide with relevant Total Costs indicated in Forms FIN-4, and FIN-5. Reimbursable expenses includes costs other than man-months

FORM FIN-4 Breakdown of Remuneration¹

(Information to be provided in this Form shall only be used to establish payments to the Consultant for possible additional services requested by the Client)

Name ²	Position ³	Staff-month Rate (PKR) ⁴
Local Staff		
		[Home] [Field]
		[Field]
Foreign Staff		
		[Home]
		[Field]

- 1 Form FIN-4 shall be filled in for the same Professional and Support Staff listed in Form TECH-7.
- 2 Professional Staff should be indicated individually; Support Staff should be indicated per category (e.g.: draftsmen, clerical staff).
- 3 Positions of the Professional Staff shall coincide with the ones indicated in Form TECH-5.
- 4 Indicate separately staff-month rate and currency for home and field work. A staff-month shall in no case be less than 173.33 work-hours.

FORM FIN-5 Breakdown of Reimbursable Expenses

(Information to be provided in this Form shall only be used to establish payments to the Consultant for possible additional services requested by the Client)

N°	Description ¹	Unit	Unit Cost ²
	Per diem allowances	Day	
	International flights ³	Trip	
	Miscellaneous travel expenses	Trip	
	Communication costs between [Insert place] and [Insert place]		
	Drafting, reproduction of reports		
	Equipment, instruments, materials, supplies, etc.		
	Shipment of personal effects	Trip	
	Use of computers, software		
	Laboratory tests/surveys.		
	Subagreements		
	Local transportation costs		
	Office rent, clerical assistance		
	Training of the Client's personnel		

¹ Delete items that are not applicable or add other items according to Clause 3.6 of the Data Sheet.

² Indicate unit cost.

³ Indicate route of each flight, and if the trip is one- or two-ways.

SECTION 5: TERMS OF REFERENCE

FEASIBILITY STUDY OF MASS TRANSIT SYSTEM FOR MULTAN

1. Introduction

Multan is the fourth most populous city in Punjab, and is known as the 'City of Saints and Shrines'. The estimated population of Multan city is 1.97 million. The City District is divided into six (6) Town Municipal Administration (TMAs), which are further divided into a total of 129 Union Councils.

The major public- transport related problem observed in Multan is that roads are not wide enough to ply standard buses. However, the Multan City District Government has started widening of some of the major roads. The main modes of transport in the city are cars, motor cycles, rickshaws, Qingqi rickshaws, passenger vans, loading trucks, public transport (buses), bi-cycles, animal driven vehicles, and walk etc. Rapid growth in population has widened the gap between the transport demand and supply in the city resulting in low average speeds and traffic delays on the existing road network. The transport related problems in Multan can be summarized as under:

- Narrow right of way along urban roads
- Non-existent bus/wagon stops on urban routes
- Non-existent proper channelized turning lanes
- Traffic congestion, delays, and as a result slow travel speeds
- Road safety issues.
- Insufficient public transport
- Parking problems
- Environmental degradation
- Economic productivity losses
- Lack of pedestrian friendly transport planning
- Social equity

Presently, there is no single agency/department within Multan city district government, which is responsible for maintaining transport and traffic data. In addition, there is no system to record and keep up-to-date transport data such as network and trip data, road inventory, traffic volumes, number of daily trips, public transport routes etc. Consequently, there is no transport model to support informed decision making.

In fiscal year 2008, MDA awarded NESPAK the contract for preparing master plan for Multan, However, to-date the final master plan document is still awaited, pending approval of MDA. During

the last five years, several major arterials within the city received a face-lift and several interchanges were built along the Inner Ring Road. Many of these development projects were carried-out in line with the proposed improvements in the draft-final master plan document. However, the city still awaits a leap-forward in improving its public transport system and infrastructure.

Furthermore, Public transport services in Multan remain un-organized and poorly regulated. The current public transportation is dominated by wagons. Public transport vehicles / wagons compete with private cars for the same road space causing congestion and delays on the roads and junctions. There is a need for a high capacity public transport system to meet increasing public travel demand. In-order to be effective the proposed system, shall not compete with urban traffic for road-space and therefore must be given priority through dedicated dimensionally displaced lanes to improve public transport reliability, efficiency, and performance.

Pakistan being a developing country; the Government of the Punjab must avail the option to supplement its development budget by earning saleable CER credits when choosing to resolve congestion in cities. The projects such as BRT Lines aim to resolve roadway congestion and also qualify for earning carbon-credits, as per CDM protocol. Therefore, it is recommended that the study may be organized to facilitate the CDM.

2. Goals of the Study

Punjab Metrobus Authority (PMA) was constituted with the mission to provide safe, efficient and comfortable urban transportation system in major cities of the Punjab. PMA is proposing a mass transit system similar to Metrobus System of Lahore, as a solution to cater for the public transport demand in Multan city (study area within MDA limits). The proposed mass transit system will offer high quality of service to the residents, meet the demand for urban transport, and contribute towards developing sustainable transport system for the city. In order to overcome the transport related problems as described above, it is necessary to provide an MTS with the following features:

- Dedicated routes to facilitate commercial and residential development;
- Optimized public transport network providing coverage to the whole city through a mix of main and feeder routes;
- Integrated transport network for maximizing ridership;
- High level of service in terms of speed, frequency and easy accessibility to reduce car/motorcycle dependency;
- Safe, secure, comfortable and environmentally sustainable system
- Operated via Off-board e-ticketing on trunk routes for passenger convenience
- Reliable and dependable, meeting needs and aspirations of the community.

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3. Objectives of the study

The main aim would be to prepare a study at par with international standards that can serve as the feasibility for implementing an integrated MTS in Multan. This study should also serve as a guide for the decision makers and investors to decide whether to implement this project or not. The key objectives of the study are as follows:

- 1. To develop a travel demand forecasting model for the city. All data required for the model development, calibration and validation must be collected using traffic and transport surveys. Details of these surveys can be seen in Scope of Services. Travel Demand Forecast Model should be developed with an elaborate focus on public transport in general and mass transit in particular. It is expected that the model will be developed using modelling software with advanced public transport and mass transit assignment procedures that closely simulates the real situation.
- 2. To identify a network of MTS corridors for the city with the aim to establish a sustainable long term Public Transport System supporting daily travel needs and economic livelihood of the residents. Identification of MTS should carefully consider the integration with the existing and proposed transit routes branching on each side of the main corridor and serving the city.
- 3. To identify at least three priority lines suitable for MTS in the city and indicate their order of priority with clear time-lines for development.
- 4. To identify the type of MTS ie. Bus Rapid Transit(BRT), Light Rail Transit(LRT) or Metro Rail Transit (MRT) etc. on the proposed priority line. In case a BRT is proposed, future horizon year should be identified when the BRT should be converted to an LRT or MRT system based on the ridership forecasts.
- 5. To prepare a detailed feasibility study document for the priority MTS line as per scope of services section.
- 6. To carry-out all necessary steps to satisfy the **Clean Development Mechanism** (CDM) criteria for earning saleable credits through **Certified Emission Reduction** (CER).
- 7. To prepare preliminary design for the priority Mass Transit line. The consultant shall propose suitable parameters for the MTS based on quantitative analysis and best international practices.

4. Scope of Services

The scope of services for this study is organized into the following major tasks as listed and summarized below:

Task 1: Assessment of Current Transport System

The Consultant must examine present traffic demand on all critical road sections/junctions and shall compare these with existing capacities of the roads. The consultant shall be responsible for the assessment of the following works:

• Existing transport policies & development plans;

- Existing road network and capacities;
- Current traffic volumes, conditions and congestion levels;
- Passenger trips, modal split, counts of public transport vehicles plying on the routes etc;
- Environmental impact of transport sector;
- Current public transport supply, demand and adequacy;
- Public transport infrastructure facilities and services;
- Public transport standards & fare policies;
- Public transport users characteristics and modal distribution analysis of intercity bus services;
- Transport related interchange facilities for urban transport services and Railways; and
- Review of the geology, topography and geotechnical conditions for investigating and proposing the appropriate alignments for mass transit lines.

Task 2: Data Collection

The collection of traffic data is fundamental to understanding the travel pattern and behaviour. This traffic data will also serve as an input to the travel demand forecasting model. The consultant shall collect and review all relevant data, reports, master plans, existing policies, and relevant documents that can help in project preparation. The consultant shall collect the additional data to meet the objectives of the study. The additional surveys shall include but not limited to the following:

• Household Interview Survey (HIS)

The survey shall estimate the demand generated by the residents by mode and time. The HIS survey shall help in understanding present opinions of transport users on existing transport environment and making assessment for the future policies. The survey shall include review of existing demographic and socio-economic situation in the city. The consultant shall collect at least 1% sample of the households in the city. Survey sample should be fairly uniformly distributed over the study area to get a good representation of the overall travel patterns and behaviour in all the areas.

The Consultant will also collect secondary data related to socio-economic characteristics of each region/block/suburb to later expand the HIS survey data to full Origin Destination (OD) matrix for travel demand forecasting model based on market segmentation.

• Manual Classified Counts (MCCs) of the vehicles

The Consultant must conduct classified traffic counts separately for each screen/cordon line in the study area and collect full traffic counts at every intersection in the priority corridor for 16/24 hours by vehicle category/type and urban/suburban buses/traffic. The survey shall cover 100% vehicle counts by vehicle type at cordon and screen lines. The location of cordon and screen lines shall be decided in consultation with the client. Screen/Cordon lines will be established in such a way that all the trips from the suburban and satellite areas going to, coming from, or crossing the study area will be captured.

In addition, the consultant shall also collect traffic counts on all major roads during the typical peak hours in order to develop a database for validation and calibration of the travel demand forecasting model.

• Roadside Interview Surveys (RIS)

The Consultant shall also conduct roadside interview surveys at screen and cordon lines separately. The survey shall include a minimum 10% sample of drivers of private vehicles and passengers of public transport vehicles at cordon lines. The survey shall collect trip information such as origin/destination, purpose, mode, vehicle occupancy etc. The consultant shall also conduct additional RIS along the priority corridor to estimate passenger with direct access to the mass transit corridor or those needing ride on one or both ends of their trip.

A clear methodology outlining how this data will be used to augment the OD matrix estimation shall be provided by the consultant.

• Public Transport Surveys

The public transport surveys shall include travel time/speed surveys, public transport occupancy surveys, public transport user interview surveys along the operational routes. Public transport users' survey shall include collecting information about socio-economic characteristics of users, O/D, trip purpose, travel time, fare paid, and perception of existing and proposed public transport services.

• Road Inventory Surveys/ Topographical Surveys

In order to build the road network for traffic and road based transit assignment, road network needs to be coded in the travel demand forecasting model. Consultant will collect data about physical infrastructure of road network, junctions and tentative land use along the road network including but not limited to road length, right of way, number of lanes, lane widths, footpath width, encroachments, predominant land use, type of junctions and bus stops etc.

The survey shall also identify and locate physical features/constraints of the environment which may influence the route design, location of stations, methods of construction, alignment of the corridor etc. The exact land use patterns for at least 100 m on each side of the corridor will be required for the priority line corridor. The dimensions will also be used to identify land acquisition in the corridor and at stations point.

Willingness to Pay Surveys

To measure value of time, willingness to pay for a more reliable, frequent, air-conditioned service must be investigated. Hence, willingness to pay surveys should be conducted by the consultant.

Speed Surveys

To understand actual traffic conditions in the study area and to build a database for calibration & validation of the transport model, speed surveys should be conducted.

Road Junctions and Traffic Signal Survey

The objective is to collect junction geometry and signal operation data along the priority corridor.

Other Surveys

The consultant shall also conduct other surveys which are deemed necessary to achieve the objectives of the study such as parking surveys, and vehicle occupancy surveys etc.

Task 3: Travel Demand Forecasting Model

The consultant shall develop, calibrate and validate travel demand model using four step travel demand forecasting for Multan using state of the art CUBE/EMME/VISUM/TRANSCAD or a similar travel demand modeling software with advanced transit assignment methods. A license for the modeling software shall be purchased in the name of the Client i.e. PMA to run the developed model. Model so developed in this study will be the property of the PMA and must provide a complete coverage of the road network consisting of all major and minor urban arterials and major collectors within the city limits. The model shall also capture the trips coming in, going out or crossing through the city limits from outer zones. The consultant shall;

- 1. Develop, calibrate and validate the travel demand forecasting model for the city. Developed model should be detailed enough to suitably model the trip generation, trip attraction, trip distribution, modal split and traffic and transit assignment. Consultant shall propose the details of zone sizes, road network resolution and considered modes in work plan and methodology section of their technical submission.
- 2. Forecast travel demand for the public transport in the city in the year 2015, year 2025 and year 2035.
- 3. Conduct training of the client's personnel to operate, modify and use the travel demand forecast model in future.

Task 4: Long Term Mass Transit Network Study

The Consultant shall develop a long-term mass transit network master plan using the travel demand forecasting model. The Consultant shall identify the type of mass transit needed for each line ie BRT, LRT or MRT in different horizon years based on demand forecasts in the order of priority. Overall mass transit network could be a mix of BRT, LRT and MRT in different horizon years. The Consultant shall:

- 1. Identify potential corridors/network for MTS, conduct scenario analyses and select priority corridor for the feasibility study.
- 2. Develop a long term network of MTS adequate till 2035 with estimated ridership of each line.
- 3. Provide a station by station ridership forecast for the priority MTS line.
- 4. All the above scenarios should be combined to develop comprehensive mobility plans for different horizon years.

5. Estimated capital cost for mass transit lines/network against target years

Task 5: Preliminary Design of Priority Mass Transit Corridor

The consultant shall:

- 1. Prepare a detailed feasibility study for priority corridor.
- 2. Identify the type of MTS suitable for the priority corridor and prepare alignment, stations, terminals, depot, control centre and ancillary facilities such as interchanges, sidewalk etc for the priority line up to the 5% design level.
- 3. Prepare preliminary interface design with other major infrastructure that falls along the priority corridor; for example, existing interchanges or proposed flyovers/underpasses or ring roads etc.
- 4. Propose the alignment and stations along the priority corridor.
- 5. Propose suitable parameters for the proposed MTS based on quantitative analysis and best international practices.
- 6. Propose at least one alternative design that consists of an all elevated priority corridor and stations.
- 7. While preparing the preliminary design, give extra care to the fact that the proposed mass transit lines should merge into the existing city landscape and should not divide the city or hinder other modes of the transport.
- 8. Design the corridor to facilitate uninterrupted operations. In case a bus rapid transit (BRT) solution is proposed, the horizon year when the system will need to be converted to an LRT/MRT to meet the increased demand shall be identified.
- 9. Propose most feasible, economical, and environmentally suitable horizontal and vertical alignment, making best use of available right of way and existing/available infrastructure.
- 10. Design and propose geometric alignment (straights and vertical & horizontal curves etc) in a way that the corridor can be used for LRT/MRT operations in the future.
- 11. Collect topographic and geotechnical data for the priority corridor to propose appropriate geometric alignment of the corridor and station locations.
- 12. Define station locations with a view to maximize patronage, joint development opportunities and most economical land acquisition to avoid potential conflicts.
- 13. Propose corridor structure that is able to fully withstand LRT/MRT systems loads.
- 14. Recommend and submit the final concept design of the preferred alternative to the Client for approval.

Task 6: Operational Design

The Consultant shall prepare conceptual operational plan for priority corridor (preferred alternative), which must include the following:

- 1. Network & service design including track structure & gauge in case of LRT/MRT, frequency of service.
- 2. System capacity & speed.
- 3. Intersection and signal control, if any.
- 4. Safety measures for the passengers at the stations as well as in corridor.
- 5. Station and platform accessibility for the passengers.
- 6. Number, design, capacity and type of mass transit vehicles (rolling stock in case of LRT/MRT).
- 7. Number, location and design of stations with length of bays, & level boarding etc.
- 8. Engineering systems including traction, signalling and other E&M systems in case an LRT/MRT solution is proposed.
- 9. Automated fare collection, transit scheduling system, and vehicle location systems.
- 10. Preliminary technical drawings on horizontal and vertical alignment in both soft (AutoCAD) and hard format at appropriate scales.
- 11. Develop the preliminary design of interchanges, depots, stabling yards if any
- 12. Calculate the energy requirements for the operations. Propose different energy supply mechanisms including an option of a dedicated power plant with preliminary design
- 13. Operational models taking into account the vehicle design and location of terminals.
- 14. Financial model and mechanism for the procurement, operation, and maintenance of Mass Transit vehicles.

Task 7: Impact of Land Development, Feeder Services and Park & Ride Facilities on MTS Priority Line

The consultant shall:

- 1. Examine the inter-relationships between the MTS priority corridor and land development to increase population and employment density around the station and corridor.
- 2. Also examine and earmark the land acquisition for the project, if any. The integration of public transport routes/feeder routes with priority mass transit line shall also be a part of the analysis.
- 3. Propose a network of feeder routes which will help to not only increase the access to priority mass transit line for the population but also increase the ridership of the proposed mass transit line.
- 4. Evaluate the impact of feeder route network and fare integration between different public transport modes as part of the study.
- 5. Investigate and propose a plan for park and ride facilities adjacent to the proposed stations.

Task 8: Traffic Management and Diversion Plans

Mass transit line will involve construction along a busy corridor, and is likely to result in traffic disruption during the construction period. The consultant shall develop detailed Maintenance of Traffic (MOT) plans to minimize disruption in the priority corridor.

Task 9: Stakeholder Consultations

The Consultant shall identify the stakeholders to the project including the residents, workers, traders, and government agencies, who will be directly or indirectly impacted by the proposed project. Identified stakeholders should be consulted either through community meetings/personal interviews/public information gatherings or other similar means which may be suitable for different audience types. Results of these stakeholder consultations should be a part of the final feasibility report.

Task 10: Capital, Operation and Maintenance Costs

The consultant shall:

- 1. Prepare complete cost estimates for the priority corridor (all alternatives) including civil works, systems, land acquisition, traffic diversion, consulting services for detailed design, project management, training & capacity building, taxes & duties, contingencies, interest during construction, and other related costs.
- 2. Estimate annual operation, maintenance and administration costs of mass transit operations and an estimate of the asset replacement costs.
- 3. Conduct option analysis for different cost scenarios such as elevated, at grade and mix of the two systems, and with land acquisition.
- 4. In case a BRT line is proposed, design the corridor to accommodate LRT/MRT operations in future and estimate the capital costs accordingly.

Task 11: Revenue Estimation

The revenue estimates for priority corridor shall be based on estimated ridership volumes. The adopted fare assumptions, and results of the willingness to pay surveys shall be integral part of the analysis. The consultant shall estimate non-operating revenues such as land development taxes, advertisements, rental potential if any, etc. The consultant shall conduct fare sensitivity analysis and recommend suitable fare structure for the system. The Consultant shall detail the impact of fare integration among priority MTS line and feeder routes on ridership and revenue estimation.

Task 12: Preparation of Brand Concept and Information Signs

The successful mass transits are traced through their branding which differentiates mass transit systems from other public transport systems. The consultant shall select a brand name for the system, and branding elements such as color of vehicle, stations, route, information sign for passengers, and other graphic designs.

Task 13: Social, Environmental and Safety Overview of the Project

The Consultant shall:

- 1. Determine environmental and social impact, both positive and negative, due to the project; and propose mitigation measures.
- 2. Estimate the Green House Gas emissions for the project and for the baseline line scenario to understand the scale of climate change mitigation potential and estimate CO2 emissions savings from different scenarios.
- 3. Recommend a design which meets the environmental standards. It should be explored how the project can promote its green credentials through different means including but not limited to rainwater harvesting, energy efficient design and carbon credits.
- 4. Conduct safety audits of the proposed design to highlight the impact of the project on the road users' safety in terms of the change in number of accidents, fatalities & injuries and economic gains and losses due to these reductions should be elaborated in detail.

All these impacts should be quantified and included in the economic analysis of the project.

Task 14: Economic, and Financial Appraisal

The Consultant shall conduct both economic and financial analyses for priority line covering following but not limited to:

- Summary of all capital costs (construction, rolling stock, power supply, signalling, telecommunications, control, station and depot equipment etc);
- Summary of operating cost;
- Assessment of financing costs;
- Identification of potential for joint development (e. g. other commercial developments);
- Financial appraisal;
- Quantification of funding needs;
- Development of a financing model (if needed);
- Computation of economic benefits (travel time savings, environmental, vehicle operating and maintenance cost savings, road maintenance savings, pollution reductions, reductions in accidents and fatalities, change in the adjacent or nearby properties' values, etc)
- Benefit/cost ratio, economic, and financial analysis including EIRR and FIRR at different time horizons for the priority corridor following World Bank and Asian Development Bank guidelines shall be conducted
- Cash flow analysis over the life of the project should be prepared under different sets of cost and revenue assumption.

Task 15: Risk Analysis

The consultant shall provide indications and/or as assessments of risk associated with but not limited to the following:

- Assessment of risks related to cost overruns;
- Assessment of risks related to time overruns:
- Assessment of risks related to revenue shortfall;
- Assessment of economic risks (inflation, exchange rate, etc.);
- Development of overall risk profile.

Task 16: Preparation of Project Action Plan

Results of this study shall be documented to provide an Action Plan to include:

- Implementation plan of the project as whole or in phases;
- Advise on project institutional arrangements required for the successful and timely implementation and completion of the project;
- Advise on the possible funding possibilities and resources for the financing of the project

Task 17: Institutional Structure for Execution and Operation of the Project

The consultant shall propose a suitable regulatory and institutional regime for implementation and operation of the priority line which are in line with best international practices. The consultant shall also prepare overall implementation plan for the project.

Task 18: Visualization Video of the Project

The consultant shall prepare a 3D design visualization video of the priority MTS line operations to showcase the project to the stakeholders.

Task 19: CDM Methodology

The consultant shall pursue and complete the step-wise milestones including communication, visits, and documentation; prescribed by CDM as per Kyoto Protocol for gaining the saleable credits resulting from the Certified Emissions Reduction. In executing the CDM prescribed steps, the consultant shall fully coordinate and complete all necessary requirements set forth by CDM Pakistan under the Ministry of Climate Change.

Task 20: Client Engagement

The consultant shall attend weekly meetings with the Client (Punjab Metrobus Authority) for presentations on the progress of the study and to discuss on issues/approvals of plans. The consultant shall submit agenda points/presentation one day before the meeting. The minutes of the said meetings should also be submitted by the consultants, three days before the next scheduled meeting to fine tune the objectives and scope of the study being undertaken by the consultant etc.

Proposed Core Team

The consultant to be engaged for this study shall appoint the following team of specialists apart from support and survey staff.

• Team Leader (Transport Planner/Engineer)

- Transport Planners
- Traffic Survey Expert
- Transport Modeler
- Road Engineer
- Traffic Engineer/Modeler
- Land Use planner
- Financial & Economic Analyst
- Legal/Contract Specialist
- Environmental/CDM Specialist
- Track Engineer*
- Signalling Expert*
- Traction/Electrical Expert*
- Mechanical Expert*

Report Submissions

The consultant shall make following report submissions to the client in soft form as well as in hard form in numbers given below:

- Inception report (10-copies)
- Survey report (10-copies)
- Intermediate/Network Study report (10-copies)
- Preliminary Design report (10-copies)
- Draft Feasibility Report (10-copies)
- Feasibility Study Report (20-copies)
- Working papers on key study activities (4 copies each)

^{*}Needed for feasibility study of priority 1 line if LRT or MRT is the preferred mode.

DELIVERABLES

Sr No.	Deliverables	Timeline (start of project)
1	Inception Report. Soft copies in MS-Word, PDF as well as ten (10) hard copies	2 weeks
2	Survey Report. Soft copies in MS-Word and PDF as well as ten (10) hard copies. In addition, socio economic data such as population, employment, school attendance, income level, vehicle ownership at zonal level should be provided in Excel format. The time and space stamped survey data in Excel format shall also include household interview survey, road interview survey, public transport survey, vehicle occupancy survey, traffic counts, travel speed, all manual classified count at cordon/screen line and critical road segment and any other surveys conducted by the consultant for this report and road inventory data.	2 months
3	GIS database of zones with population, employment, income levels and vehicle ownership information. Also, GIS database of road network with data such as link lengths, number of lanes, land use, important features/places, traffic volumes, capacities, etc included. GIS data should be in either ArcGIS or MapInfo format.	3 months
4	Fully operational and ready to use transport model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.	3 months
5	Training six personnel of the client in using the fully operational travel demand forecasting model delivered in deliverable 4. Training should include but not limited to introduction to the basics of the software(network mapping and editing, zone and OD matrix formulations, mode split modeling, traffic and transit assignment modeling), model building, model modifications, scenario analysis and report building.	6 months
6	An intermediate report on network study outlining the type of mass transit and priority lines will be submitted to the client. Soft copies in MS-Word and PDF as well as ten (10) hard copies. After approval from the client, consultant will proceed to feasibility study stage for the priority line. Report should contain estimated riderships, line lengths, locations and number of stations and high resolution maps.	3.5 months
7	Preliminary design report of priority line with alignment of the preferred alternative approved by the client, stations, depot, control centre, terminal, night parking places, and interchanges. Soft copies in MS-Word and PDF as well as ten (10) hard copies. Plans (if any) showing land acquisition requirement along the corridor. All preliminary drawings in AutoCAD, PDF and hard copy format (10 copies). 3D design visualization video of the priority MTS line.	4.5 months
8	Draft Feasibility Study Report for priority line including all tasks mentioned in scope of services. Soft copies in MS-Word and PDF as well as ten (10) hard copies	5 months
9	Feasibility Study Report for priority line including all tasks mentioned in scope of services. Soft copies in MS-Word and PDF as well as twenty (20) hard copies	6 months
10	Working Papers on Key Study Activities. Soft copies in MS-Word and PDF as well as four (4) hard copies.	6 months

Minimum Qualifications and Experience Required for Each Role in Project Team

Role	Min. Qualification	Experience	Term of Reference
Team Leader	Masters in Transport Planning/ Engineering	15 years	Supervise overall project activities, must have an excellent understanding of project management, transport surveys, planning, and modeling activities.
Transport Planner	-do-	10 years	Plan surveys, supervise data collection & analysis and modeling activities
Traffic Survey Expert	Bachelors in Transportation Engineering or related field	10 years	Design, conduct and supervise surveys and collate the results
Transport Modeler	Masters in Transport Planning/Engineering or related field	10 years	Develop, calibrate and validate transport models and conduct scenario analysis to develop an effective mass transit network
Road Engineer	Bachelors in Transportation Engineering or related field	10 years	Conduct route & geometric design of the priority BRT corridor
Traffic Engineer/ Modeler	Bachelors in Transportation Engineering or related field	10 years	Analyse intersections and signal control systems, develop visualization models using microsimulation
Land Use Planner	Masters in Urban Planning	5 years	Analyse existing and evaluate future land use development scenarios
Financial and Economic Analyst	CA/CFA	5 years	Benefit cost analysis, Financial and economic analysis and modelling, cash flow analysis
Legal/Contract Specialist	Relevant degree in Law or Contract Administration	5 years	Evaluate legal and institutional aspect for operation of Buses
Environmental/ CDM Specialist	Masters in Environmental Engineering/Planning/Ma nagement or related field	5 years	Evaluate environmental and social aspect of the project. Carry-out CDM analysis for the project as per prescribed methodology to earn saleable credits through CER in Coordination with CDM Pakistan
Track Engineer*	BSc Civil Engineering	5-10 years	Conduct preliminary design of depot, stabling yard, cross sections of rails, track related work assessments, and cost estimations
Signalling Expert*	BSc Electrical/Signaling/Telec ommunication Engineering	5-10 years	Evaluate advanced signalling systems and propose the best suited signalling solution with cost estimates
Electrical/ Traction Expert*	BSc Electrical Engineering	5-10 years	Conduct preliminary design of electrical systems including power estimations for stations, traction, depot, stabling yards etc and cost estimations
Mechanical Expert*	BSc Mechanical Engineering	5-10 years	To develop specifications for rolling stock and other mechanical systems

SECTION 6: TECHNICAL EVALUATION CRITERIA

1. Technical Evaluation Criteria

Maximum points for Technical Evaluation are <u>100</u>. In the 1st stage, technical bids will be opened. Bidders who score 70 or more in the technical evaluation will be technically successful. Bidders who fail to gain a score of 70 in technical evaluation will be disqualified. In order to qualify, bidders also need to achieve 50 or more marks in all of the three criteria ie. Company Profile, Project Team and Approach & Methodology.

Relative Weights given to the different evaluation criteria are shown in the table below:

Weight	Evaluation Criteria	Weights
W_1	Company Profile	35%
W ₂	Project Team	45%
W ₃	Approach and Methodology	20%

The Technical Score, S_t will then be obtained by the following formula:

$$S_t = A_1 * W_1 / 100 + A_2 * W_2 / 100 + A_3 * W_3 / 100$$

where, A_1 , A_2 and A_3 are the total component scores against company profile, project team, and Approach & Methodology criteria respectively.

The technical criteria and their details are given below:

1.1 Firm Profile: Each firm will be evaluated on three factors:

- a) Number of similar assignments;
- b) Value of similar assignments; and
- c) Organizational profile.

	MAX SCORE
Number of similar assignments	45
Value of similar assignments	45
Organizational profile	10

1.1.1 Number of Similar Assignments

Scoring in this segment is done on the basis of the similarity of the assignments with respect to their age (how long ago they were executed). The scoring is done in four steps.

Step 1:

The total number of assignments (T_S) that were requested from the firm for technical evaluation (through the Request for Proposal) is distributed in the following table.

		Age		
ity		0-5 years	6-10 years	10 + years ago
ıilar	Strong			
Sim	Medium			
	Weak			

Total number of projects (T_S): _____

Step 2:

Each number in the former table (Step 1) is then multiplied with the weight in its corresponding cell from the table below:

Weight (W)		1	0.65	0.3
Weight (W)		0-5 years	6-10 years	10 + years ago
1	Strong	1	0.65	0.3
0.65	Medium	0.65	0.4225	0.195
0.3	Weak	0.3	0.195	0.09

Step 3:

The score in each box is summed up to get a total score (N) for the projects. N is then divided by T_S to get a standardized value (N_S), i.e.

$$N_S = N / T_S$$

Step 4:

N_S is then multiplied with the following weights according to the value of T to get the component score.

T	Weight (W)
1-3	0.3
4	0.65
5 or more	1

Component Score, $A_{1,NSA} = N_S \times W \times 45$

1.1.2 Value of Similar Assignments

One aspect of the firm's ability to undertake any given assignment successfully is whether the similar assignments it executed were also comparable in value to the present assignment.

Step 1:

The same assignments as in 1.1.1 are distributed in the following table:

		Relative size of Assignment			
Ity		80% or more	50% - 80%	Less than 50%	
Similari	Strong				
Sim	Medium				
	Weak				

Total number of projects (T):_____

Step 2:

Each number in the former table (Step 1) is then multiplied with the weight in its corresponding cell from the table below:

Weight		1	0.65	0.3
(W)		80% or more	50% - 80%	Less than 50%
1	Strong	1	0.65	0.3
0.65	Medium	0.65	0.4225	0.195
0.3	Weak	0.3	0.195	0.09

Step 3:

The score in each box is summed up to get a total score (N) for the projects. N is then divided by T_S to get a standardized value (N_S), i.e.

$$N_S = N/T_S$$

Step 4:

N_S is then multiplied with the following weights according to the value of T to get the component score.

T	Weight (W)
1-3	0.3
4	0.65
5 or more	1

Component Score, $A_{1,VSA} = N_S \times W \times 45$

1.1.3 Organizational Profile

Organizational profile will be measured by two components:

- a) quality management system and
- b) organizational structure.

Quality management system is marked on the basis of compliance to international quality standards such as ISO, CMM, or other relevant certifications.

Organizational structure will be marked if the firm has a well-defined departmental structure, such as Accounts, Support, Design, Sales, Quality Management, and R&D etc

Both components have equal scores, i.e. 5 points each, and will get a 0 for 'no', or a 5 for 'yes' (i.e. no partial marks), depending on whether the firm meets the given criteria.

Component Score, $A_{1,OP} = A_{1,OP-QMS} + A_{1,OP-OS}$

Total Score,
$$A_1 = A_{1,NSA} + A_{1,VSA} + A_{1,OP}$$

1.2 Project Team:

This section of the evaluation rates the team nominated by the firm to execute the assignment. For this, each CV will be evaluated separately on the basis of education and past experience. Marks for each individual are provided in Section 2: Instructions to Consultants - Datasheet 5.2 (a).

All firms are to be evaluated for a similar sized project team.

Each CV submitted by the firm is evaluated on three criteria:

	Max. Scores
Relevant Education & Qualification	25
Relevant Background	70
Time with Firm	5

a) Education & Qualifications

Each individual is ranked on:

Relevant Academic Qualifications	80%
Relevant Professional certification	20%

i. Relevant Academic Qualification

	Grade (G)
Relevant Bachelors Degree or equivalent	80%
Relevant Masters Degree or equivalent	90%
Relevant PhD or equivalent	100%

Sub-component score = G of 80%

ii. Relevant Professional Certification

If the individual has a relevant professional certification by a recognized body that is relevant to his/her role in the assignment, full score (20%) will be given.

b) Relevant Background

Relevant background for each individual is evaluated on five factors:

1	Number of similar assignments (in past 10 yrs)	25%
2	Value of largest similar assignments (in past 10 yrs)	15%
3	Role in similar assignments	30%
4	Time Spent in similar assignments(in past 5 yrs)	30%

i. Number of Similar Assignments

The number of similar assignments, (N) listed on the individual's CV for the past 10 years will be compared with a base value ($T_S=5$)

Sub-component score =
$$(N/T_S) \times 25\%$$

Max score awarded for this sub component is 25%.

ii. Value of Largest Similar Assignment

The value of the largest similar assignment listed on the individual's CV for the past 10 years is compared to the present assignment. The grading is then done according to the following table:

Value in comparison to present assignment	Grade (G)
80%+	100%
50%-80%	65%
<50%	30%

Sub-component score = G of 15%

iii. Role in Similar Assignments

The role of the individual in previous similar assignments listed on his/her CV is compared to the proposed role in the present assignment. The grading is then done according to the following table:

son	Grade (G)	Role in number of similar Project	
aris		2 or more	1
mpa of R	Exactly similar	100%	65%
o Con	Support role to similar	65%	42.25%
	Slightly similar	30%	19.5%

iv. Time Spent in Similar Assignments

Time spent by the individual on similar projects in man-months (N) will be compared with the total number of possible man-months in the past 5 years, i.e. 60 months.

Sub-component score = $(N/60) \times 30\%$

c) Time Spent with Firm

If an individual has been working with the bidding firm for 12 or more months, he/she will be given 5 marks, otherwise 0.

A₂ is obtained by adding up the weighted component scores for each key personnel of the project team.

1.3 Approach & Methodology:

This section will evaluate the firm's solution to the given problem, i.e. the consultancy assignment. This section, which comprises two sub sections, i.e. a) Understanding & Innovativeness, and b) Methodology, will be completed by the domain specialists.

	Max. Scores
Understanding and Innovativeness	50
Methodology	50

Each section contains several questions that can be given either of the following grades depending on the content of the technical proposal:

Grade (G)	Quality (Q)	Weight (W)
A	Excellent	1
В	Good	0.65
С	Average/Below Average	0.3
D	Absent	0

1.3.1 Understanding and Innovativeness

Sr	CRITERIA	GRADE
No.		
1	What is the depth of the firm's understanding of the requirements and objectives of	
	the consultancy assignment?	
2	What is the quality of the improvements to the TOR suggested by the consultant to	
	improve the outcome of the assignment?	
3	What is the level of identification of potential risks that will affect the execution of the	
	assignment, and what is the quality of the mitigation strategies proposed?	
4	How suitable are the assumptions made by the firm regarding the consulting	
	assignment?	
5	Are there strategies proposed by the firm to complete the study earlier than proposed	
	timelines without compromising the quality?	
6	Travel demand modeling platform proposed by the firm for this study has advanced	
	transit assignment modeling procedures?	

Step 1:

Each grade is converted into its weight (W) and added up to get a total score (N).

Step 2:

N is divided by 6, i.e. the maximum attainable score, and multiplied with the component weight to get the component score:

Component score, $A_{3,UI} = (N/6) \times 50$

1.3.2 Methodology

Sr	CRITERIA	GRADE
No.		
1	How in-depth is the Statement of Work: does it fully cover the scope of the assignment and is it sufficiently developed to ensure assignment completion?	
2	How developed is the Work Breakdown Structure (WBS) for the assignment?	
3	How clear is the mapping of the WBS to the given deliverables?	
4	How suitable is the Resource Assignment Matrix (RAM) and its linkage with the WBS?	
5	How suitable is the Work Plan (staffing schedule): is the resource utilization sufficient and practical?	

Step 1:

Each grade is converted into its weight (W) and added up to get a total score (N).

Step 2:

N is divided by 5, i.e. the maximum attainable score, and multiplied with the component weight to get the component score:

Component score,
$$A_{3, M} = (N/5) \times 50$$

 $A_3 = A_{3, UI} + A_{3, M}$

SECTION 7: DRAFT AGREEMENT

FOR

TRANSPORT MODELING AND FEASIBILITY STUDY FOR MASS TRANSIT SYSTEM IN MULTAN

BETWEEN

THE PUNJAB METROBUS AUTHORITY, GOVERNMENT OF THE PUNJAB

AND

[Consultant's Name]	
---------------------	--



Date LAHORE, PAKISTAN

I. FORM OF CONTRACT

BETWEEN

Governor of the Punjab acting through the Managing Director, The Punjab Metrobus Authority, Government of the Punjab, on the one hand, (hereinafter called the "Client" which expression shall include its successors, legal representatives and permitted assigns);

AND

xxxxxxxxxxxx (hereinafter called the "consultant" which expression shall include the successors, legal representatives and permitted assigns)

The Client and the Consultant are herein referred to individually as a "party" and collectively as the "parties".

WHEREAS

- (a) the Client has selected the Consultant to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services"); and
- (b) the Consultant, having represented to the Client that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the Parties 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 (GC);
 - (b) the Special Conditions of Contract (SC);
 - (c) Request for Proposal and Letter of Award (LoA)
 - (d) the following Appendices:

Appendix A: Terms of Reference (Section 5 of RFP)

Appendix B: Key Personnel (Section of RFP)

Appendix C: Integrity Pact (Sample form in RFP)

- 2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:
 - (a) the Consultant shall carry out the Services in accordance with the provisions of the

Contract; and

(b) the Client shall make payments to the Consultant 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 in two identical counterparts, each of which shall be deemed as the original, as of the day, month and year.

Signed on behalf of The Punjab Metrobus Authority	on behalf of The consultant
Signature	Signature
Name: Managing Director Punjab Metrobus Authority Dated:	Name: Xxxxxxx Xxxxxxxxx Dated:
Witness 1:	Witness 1:
Signature:	Signature:
Name:	Name:
NIC Number:	NIC Number:
Address:	Address:

II. GENERAL CONDITIONS OF THE 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 of Government of Pakistan/Government of the Punjab and as those may be issued and in force from time to time;
- (b) "Contract" means the Contract signed by the Parties, to which these General Conditions of the contract (GC) are attached, together with all the documents listed in Clause I (Form of contract) of a Contract;
- (c) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6
- (d) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Sub-Clause 2.1;
- (e) "GC" means these General Conditions of the Contract;
- (f) "Government" means the Government of the Islamic Republic of Pakistan, Provincial Government(s) and/or Local Government(s)
- (g) "Foreign Currency" means currency other than the currency of Islamic Republic of Pakistan.;
- (h) "Local Currency" means the currency of the Islamic Republic of Pakistan;
- (i) "Member" in case the Consultant consist of a joint venture of more than one entity, means any of the entities, and "Members" means all of these entities;
- (j) "Party" means the Client or the Consultant, as the case may be, and "Parties" means both of them:
- (k) "Personnel" means persons hired by the Consultant or by any Sub-consultant as employees and assigned to the performance of the Services or any part thereof;
- (l) "SC" means the Special Conditions of Contract by which the GC is amended or supplemented;
- (m) "Services" means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A;
- (n) "Sub-consultant" means any entity to which the Consultant subcontract any part of the Services in accordance with the provisions of Sub-Clause 3.5;
- (o) "Third Party" means any person or entity other than the Client, the Consultant or a Sub-consultant; and
- (p) "Project" means the work specified in SC for which engineering consultancy services

are desired.

1.2 Law Governing the 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 English language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All the reports and communications shall be in the English language.

1.4 Notices

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an Authorized Representative of the Party to whom the communication is addressed, or when sent by registered mail, or facsimile to such Party at the address of the Authorized Representative specified under Sub-Clause SC 1.1. A Party may change its address for notice hereunder by giving the other Party notice of such change. In case of notification by registered mail, 4th day following the date the mail is given to the post is the notification date, unless otherwise delivered earlier.

1.5 Location

The Services shall be performed at such locations as specified in Appendix A and, where the location of a particular task is not so specified, at such locations as mutually agreed by the Parties.

1.6 Authorized Representatives

The Client, or the Consultant shall appoint their Authorized Representative and may, from time to time, delegate any / all of the duties / authority, vested in them, to their authorized Representative(s), including but not limited to, signing on their behalf to legally bind them, and may, at any time, revoke such delegation.

- a. Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultant shall be taken or executed by the Authorized Representatives specified in the SC.
- b. The Authorized Representative shall only carry out such duties and exercise such authority as may be delegated to him/her, by the Client, or the Consultant as the case may be.
- c. Any such delegation or revocation shall be in writing and shall not take effect until notified to the other party to the Contract.
- d. Any decision, instruction or approval given by the Authorized Representative, in accordance with such delegation, shall have the same effect as though it had been

given by the Consultant.

- e. Notwithstanding the above Clause, any failure of the Authorized Representative to disapprove Services shall not prejudice the right of the Client to disapprove such Services and to give instructions for the rectification thereof.
- f. If either party questions any decision or instruction of the Authorized Representative of the other party, the matter shall be resolved in accordance with Clause 7 pertaining to Settlement of Dispute.

1.7 Taxes and Duties

Unless specified in the SC, the Consultant, Sub-consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions, as may be levied under the Applicable Law, throughout the currency of this contract; the amount of all such taxes, duties, fees and other impositions is deemed to have been included in the Contract Price. Furthermore, the Contract price shall be inclusive of General Sales Tax (GST) on Services in accordance with the Applicable Law.

1.8 Leader of Joint Venture

In case the Consultant consist of a joint venture of more than one entity, the Consultant shall be jointly and severally bound to the Client for fulfillment of the terms of the Contract and designate the Member named in the SC to act as leader of the Joint Venture, for the purpose of receiving instructions from the Client.

1.9 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, have complete charge of Personnel and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.10 Headings

The headings shall not limit, alter or affect the meaning of this Contract.

2. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This Contract shall come into force and effect on the date (the "Effective Date") of the signing of the Contract by both parties.

2.2 Commencement of Services

The Consultant shall begin carrying out the Services from the Effective Date as per Clause no. 2.1.

2.3 Expiration of Contract

Unless terminated earlier pursuant to Sub-Clause 2.9, this Contract shall expire when, pursuant to the provisions hereof, the Services have been completed and the payments of remunerations, including the direct costs if any, have been made. The Services shall be completed within a period as is specified in the SC, or such extended time as may be allowed under Sub-Clause 2.3.

The term "Completion of Services" is as specified in the SC.

2.4 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price may only be made in writing, with mutual consent, which shall be signed by both the Parties.

2.5 Extension of Time for Completion

If the scope of the Services is required to be increased, i.e. by mutual consent of both parties:

- (a) the increase shall be regarded as Additional Services required by the Client outside the Scope of Services described in appendix-A; and
- (b) the Client shall extend the time for Completion of the Services accordingly, upon the request of the Consultant.
- (c) Any extension in time for the completion of the tasks within the agreed Scope of this Contract shall not be regarded as Additional Services.

2.6 Force Majeure

2.6.1 Definition

- (a) 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, and includes, but is not limited to, terrorism, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts, or other industrial actions (except where such strikes, lockouts or other industrial actions are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies. Force Majeure can be affected only if accepted by the party not declaring force majeure.
- (b) Force Majeure shall not include (i) any event which is caused by the negligence or

intentional action of a Party or such Party's Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder.

(c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.6.2 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 in writing not later than fifteen (15) days following the occurrence of such an event.

2.6.3 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.

2.6.4 Payments

During the period of its 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 purpose of the Services and in reactivating the Services after the end of such period.

2.7 Suspension of Payments by the Client

The Client may, by written Notice of Suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period of fifteen (15) days after receipt by the Consultant of such Notice of Suspension or such longer period, if any, as may be mentioned in the Notice of Suspension.

2.8 Termination

2.8.1 By the Client

The Client may terminate this Contract by giving a written notice of termination to the Consultant for a period of:

• not less than thirty (30) days in case of occurrence of any of the events specified in paragraphs (a) through (e) of this Sub-Clause; or

- not less than sixty (60) days in case of the event referred to in paragraph (f) of this Sub-Clause.
- (a) if the Consultant do not remedy a failure in the performance of their obligations under the Contract, within fifteen (15) days after being notified or within a longer period mentioned in the Notice of Suspension issued by the Client or within any further period as the Client may have subsequently approved in writing;
- (b) if the Consultant becomes (or, if the Consultant consists of more than one entity, if any of their members becomes) insolvent or bankrupt or enters into any agreements with their creditors for relief of debt or takes advantage of any law for the benefit of debtors or go into liquidation;
- (c) if the Consultant fails to comply with a notified decision reached as a result of arbitration proceedings pursuant to Clause no. 7 hereof;
- (d) If it is decided by a Court of Law that the Consultant is giving damage to rights, obligations and interests of Client;
- (e) in case the Consultant is unable to perform a significant portion (as determined by the Client) of the Services for a period of not less than sixty (60) days after the disappearance of force majeure;
- (f) if the Client, in its sole discretion, decides to terminate this Contract for convenience.

2.8.2 By the Consultant

The Consultant may terminate this Contract by giving a written notice of termination to the Client of no less than thirty (30) days in case of occurence of any of the events specified in paragraphs (a) to (c) of this Sub-Clause:

- (a) Not subject to Clause no. 7 'dispute resolution', if the Client fails to pay dues of the Consultant within thirty (30) days of receiving written notice from the Consultant that such payment is overdue;
- (b) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within thirty (30) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach;
- (c) if the Client fails to comply with any finalized decision reached as a result of arbitration proceedings pursuant to Clause 7 hereof.

2.8.3 Cessation of Services

Upon receipt of notice of termination under Sub-Clause 2.8.1, or giving of notice of termination under Sub-Clause 2.8.2, the Consultant shall take all necessary steps to bring the Services to a close in a prompt and orderly manner and each party shall make every reasonable effort to keep expenditures of both parties to a minimum. The Consultant shall incur the expenditure with the consent of the Client. With respect to documents prepared

by the Consultant, and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clause 3.7 & 3.8.

2.8.4 Payment upon Termination

Upon termination of this Contract pursuant to Sub-Clauses 2.8.1 or 2.8.2, the Client shall make the following payments to the Consultant:

- (a) remuneration and reimbursable direct costs expenditure pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination. Effective date of termination for purposes of this Sub-Clause means the date when the prescribed notice period would expire;
- (b) except in the case of termination pursuant to paragraphs (a) through (d) of Sub-Clause 2.8.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel, according to financial bid. The payment to consultant for deliverables shall be made subject to the satisfaction of client and further utilization in case of award to other consultant.

2.8.5 Disputes about Events of Termination

If either Party disputes the occurrence of an event specified in paragraphs (a) through (e) of Sub-Clause 2.8.1 or in paragraph (a) through (c) of Sub-Clause 2.8.2, such Party may, within thirty (30) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 7 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standard of Performance

The Consultant shall perform the Services and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisors to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-consultants or third parties.

3.1.2 Law Governing Services

The Consultant shall perform the Services in accordance with the Applicable Law and shall take all practicable steps to ensure that any Sub-consultants, as well as the Personnel of the Consultant and any Sub-consultants, comply with the Applicable Law.

3.2 Consultant Not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultant pursuant to Clause no. 6 shall constitute the

Consultant's sole remuneration in connection with this Contract or the Services, and the Consultant shall not accept for its 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 its obligations under the Contract, and the Consultant shall use its best efforts to ensure that the Personnel, any Sub-consultant, and agents of either of them similarly shall not receive any such additional remuneration.

3.3 Confidentiality

The Consultant, their Sub-consultants, and the Personnel or either of them shall not, either during the term or for ten years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Client's business or operations without the prior written consent of the Client.

3.4 Liability of the Consultant

The Consultant are liable for the consequence of errors and omissions on their part or on the part of their employees in so far as the design of the Project is concerned to the extent and with the limitations as mentioned herein below.

The liability of the Consultant expires after three (3) years from the date of final completion of the design. The Consultant may, to protect themselves, insure itself against the liabilities under this contract. If it wishes to do so, the Consultant shall procure the necessary cover before commencing the Services and the cost of procuring such cover shall be borne by the Consultant.

3.5 Consultant's Actions Requiring Client's Prior Approval

The Consultant shall obtain the Client's prior approval in writing before taking any of the following actions:

- (a) appointing Personnel other than those listed in Section 5 of RFP;
- (b) approval of priority line for feasibility study and length of route for preliminary design
- (c) The zoning procedure, survey forms and locations of screen and cordon lines
- (d) final concept design of the preferred alternative
- (e) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of Sub-consultant and the terms and conditions of the subcontract shall have been approved in writing by the Client prior to the

execution of the subcontract, and (ii) that the Consultant shall remain fully liable for the performance of the Services by the Sub-consultants and its Personnel pursuant to this Contract;

(f) any other action that may be specified in the SC.

3.6 Reporting Obligations

The Consultant shall submit to the Client the reports, data, drawings, videos and documents specified in Annex-B of the RFP, in the numbers, and within the periods set forth in the said Annexure.

3.7 Documents Prepared by the Consultant to be the Property of the Client

All plans, drawings, GIS files, specifications, reports, videos, transport models, computer files, and other documents prepared and software purchased by the Consultant shall become and remain the property of the Client, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver (if not already delivered) all such documents and software to the Client, together with a detailed inventory thereof. The Consultant may not retain a copy of such documents and software without prior approval of the Client.

3.8 Equipment and Materials Furnished by the Client

Equipment and materials made available to the Consultant by the Client, or purchased by the Consultant with funds provided exclusively for this purpose by the Client, shall be the property of the Client and shall be marked accordingly and confirmed in writing to the Client with the complete inventory of such equipment and materials. Upon termination or expiration of this Contract, the Consultant shall give back to the Client all the equipment and materials in their present condition.

4. CONSULTANT'S PERSONNEL AND SUBCONSULTANTS

4.1 Description of Personnel

The titles, agreed job description, and minimum qualifications, in carrying out of the Services of the Consultant's Key Personnel are subscribed in Section 5 of RFP.

4.2 Removal and /or Replacement of Personnel

- (a) If the Client, (i) finds that any of the Personnel engaged by the Consultant have committed serious misconduct or have been charged with having committed a criminal action; or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the Client's written request specifying the grounds therefore, provide as a replacement a person with qualifications and experience acceptable to the Client.
- (b) The Consultant may depute additional experts, if required, without asking additional remunerations.
- (c) Consultant has no right to change the expert personnel who are assigned to work packages without getting prior approval from the Client. The replaced personnel shall be better or equal in qualifications and expertise as compared to the predecessors.

4.3 Approval of Personnel

The Key Personnel of the Consultant listed by title as well as by name Section 5 of RFP are deemed to be approved by the Client. In respect of other Key Personnel which the Consultant proposes to use in carrying out of the Services, the Consultant shall submit to the Client for review and approval a copy of their CV's. If the Client does not object in writing (stating the reasons for the objection) within fourteen (14) calendar days from the date of receipt of such CV's, such Key Personnel shall be deemed to have been approved by the Client.

5. OBLIGATIONS OF THE CLIENT

5.1 Assistance, Coordination and Approvals

5.1.1 Assistance

The Client shall use its best efforts to ensure that the Client shall:

- (a) provide at no cost to the Consultant, Sub-consultants, and Personnel such documents prepared by the Client or other consulting engineers appointed by the Client as shall be necessary to enable the Consultant, Sub-consultants or Personnel to perform the Services;
- (b) assist to obtain the existing data relevant to the carrying out of the Services, with various Government and other organizations. Such items shall be returned by the Consultant upon completion of the Services under this Contract;
- (c) issue to officials, agents, and representatives of the concerned organizations; all such instructions as may be necessary or appropriate for prompt and effective implementation of the Services;
- (d) provide to the Consultant, Sub-consultants, and Personnel any such other assistance and exemptions as may be specified in the SC and in the attachement;
- (e) obtain permits which may be required for right-of-way, entry upon the lands and properties for the purposes of this Contract.

5.1.2 Co-ordination

The Client shall:

- (a) coordinate and get or expedite any necessary approval and clearances relating to the work from any Government or Semi-Government Agency, Department or Authority, and city district government.
- (b) coordinate with any other consultant employed by him.

5.1.3 Approvals

The Client shall accord approval of the documents within such time as specified in the SC,

whenever these are applied for by the Consultant.

5.2 Access to Land

The Client warrants that the Consultant shall have, free of charge, unimpeded access to all land of which access is required for the performance of the Services.

5.3 Changes in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law which increases or decreases the cost of the Services rendered by the Consultant, then under this Contract there shall be no increase or decrease in cost accordingly.

5.4 Payments

In consideration of the Services performed by the Consultant under this Contract, the Client shall make to the Consultant such payments and in such manner as is provided by Clause 5.4 of Special Conditions of this Contract.

6. PAYMENTS TO THE CONSULTANT

6.1 Remuneration

The Consultant's total remuneration shall not exceed the Contract Price and shall be a fixed amount **of xxxxxx** (in Words) inclusive of all staff and other costs, incurred by the Consultant in carrying out the Services described in Section 5 Annex-A. The fixed prices will increase only if the client ask for additional services beyond the services described in Section 5 Annex-A.

6.2 Contract Currency and Price

(a) Payment shall be made in Pakistan Rupess into an account designated by the Consultant.

Bank Name:

Branch:

Consultant's bank account (Title of Account):

(b) The SC shall specify the breakup of remuneration to be paid.

6.3 Terms and Conditions of Payment

Terms are referred to "Time to payment" and Conditions means "payments linked to deliverables" in the Special Conditions of the contract

6.4 Period of Payment

Amounts due to the Consultant shall be paid by the Client within twenty-eight (28) days of

the receipt of the Consultant's invoice. Consultant shall provide supporting documentation including details of work completed for each task and delivered as per agreed time schedules/timelines described in SC Clause no. 5.4 and accepted by the Client. Twenty-eight (28) days will start after the written approval of the client accepting the quality of work.

6.5 Consultant's Entitlement to Suspend Services

If the Client fails to make the payment for any of the Consultant's invoices, within twenty-eight (28) days after the expiry of the time stated in Sub-Clause 6.4, within which payment is to be made, the Consultant may after giving not less than twenty one (21) days' prior notice to the Client, suspend the Services or reduce the rate of carrying out the Services, unless and until the Consultant has received the payment.

7. SETTLEMENT OF DISPUTES

7.1 Amicable Settlement

The Client and the Ctonsulta shall make every effort to amicably resolve, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract or its interpretation.

7.2 Dispute Settlement

If, after thirty working days, from the commencement of such informal negotiations, the Client and the Consultant have been unable to amicably resolve a dispute relating to this contract, either party may, require that the dispute be referred for resolution by arbitration under the Pakistan Arbitration Act, 1940, as amended, by one or more arbitrators selected in accordance with the said Law. The place for arbitration shall be Lahore, Pakistan. The award shall be final and binding on the parties.

Services under the Contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due to or by the Client shall be delayed, cancelled, or withheld on account of such proceedings.

7.3 Statutes and Regulations

The Contract shall be governed by and interpreted in accordance with the laws of Pakistan. The Consultant and Sub-consultant(s) shall, in all matters arising in the performance of the Contract, conform, in all respects, with the provisions of all Central, Provincial and Local Laws, Statutes, Regulations and By-Laws in force in Pakistan, and shall give all notices and pay all fees required to be given or paid and shall keep the Client indemnified against all penalties and liability of any kind for breach of any of the same.

The Courts at Lahore shall have the exclusive territorial jurisdiction in respect of any dispute or difference of any kind arising out of or in connection with the Contract.

8. INTEGRITY PACT

If the Consultant or any of his Sub-consultants, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Consultant as Appendix-C to this Form of Contract, then the Client shall be entitled to:

- (a) recover from the Consultant an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Consultant or any of his Sub-consultant(s), agents or servants;
- (b) terminate the Contract; and
- (c) recover from the Consultant any loss or damage to the Client as a result of such termination or of any other corrupt business practices of the Consultant or any of his Sub-consultant, agents or servants.

On termination of the Contract under Sub-Clause no. 8(b), the Consultant shall proceed in accordance with Sub-Clause 2.8.3. Payment upon such termination shall be made under Sub-Clause 2.8.4 (a) after having deducted the amounts due to the Client under Sub-Clauses 8(a) and 8(c).

9. 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.

10. WAIVER

Any waiver by the Client of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of the same or any other provision hereof. All waivers by the Client shall be in writing.

11. REFORMATION

In case any one or more of the provisions or parts of a provision contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision or part of a provision of this Agreement; and this Agreement shall, to the extent lawful, be reformed and construed as if such invalid or illegal or unenforceable provision, or part of a provision, had never been contained herein, and such provision or part reformed so that it would be valid, legal and enforceable to the maximum extent.

Without limiting the foregoing, if any provision (or part of provision) contained in this Agreement shall for any reason be held to be excessively broad as to duration, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with then existing applicable law.

III. SPECIAL CONDITIONS OF THE CONTRACT

1.1 Authorized Representatives

The Authorized Representatives are the following:

For the Client	:
xxxxxxxxxx	xxxxx
Managing Di	rector
Punjab Metro	obus Authority
5 th Floor, Arfa	a Software Technology Park, Lahore, Punjab, Pakistan
Telephone	:
Facsimile	:
Email	:
For the consu	ltant;
Name	:
Designation	:
Address	:
Telephone	: xxxxxxxxxxx
Fax	: xxxxxxxxxxx
Email	:

1.2 Taxes and Duties

The Client shall not pay on behalf of the Consultant, the Sub-Consultants and the Personnel, and shall not reimburse the Consultant, the Sub-Consultants and the Personnel any taxes, duties, fees, levies and other impositions imposed, under the Applicable Law, on the Consultant, the Sub-Consultants and the Personnel in respect of:

- (a) any payments whatsoever made to the Consultant in connection with the carrying out of the Services;
- (b) any equipment imported for the purpose of carrying out the Services and paid for out of funds provided by the Client and which is treated as property of the Client;
- (c) The Consultant shall be entirely responsible for all applicable taxes, duties and other such levies imposed by the concerned local provincial and federal authorities in Pakistan.

2.3 Expiration of Contract

The period of completion of Services shall be six (06) months from the Commencement Date of the Services or such other period as the Parties may agree in writing.

"Completion of Services" means: the time period agreed between the contracting parties for the completion of all the specified tasks as agreed in Terms of References (TORs) attached as Appendix-A.

3.1 Documents Prepared by the Consultant to be the Property of the Client

The Consultant shall not use these documents for purposes unrelated to this Contract without the prior written approval of the client.

3.5 Consultant's Actions Requiring Client's Prior Approval

The Consultant shall also clear with the Client, before commitments on any action they propose

to take under the following:

- i) Issuing Variations Orders in respect of:
 - additional items of Works as determined by the Consultant to be necessary for the execution of Works.
 - any new item of the Works not envisaged in the Contract Documents and which is determined by the Consultant to be necessary for the execution of Works.
- ii) Claim from the Contractor for extra payment with full supporting details and Consultant's recommendations, if any, for settlement.
- iii) Details of any nominated sub-contracts.
- iv) Any action under terms of Performance Guarantee or Insurance Policy.

4.1 Approvals

The Client shall accord approval of the documents / designs / progress reports / implementation plans / and all other works to be completed as per this contract by the consultant within (28) days from the date of their submission by the Consultant.

5.1 Remuneration

Fixed remuneration of the services and its delivery costs as described in Appendix-A is net cash **xxxxxxxxxx** (inclusive of all taxes).

(a) All the additional services offered by the Consultant excluding the tasks mentioned under Appendix-A shall be charged based on nature of the task/financial bid unit

prices.

5.4. Contract Price

The breakup of remuneration for tasks mentioned in Appendix-A is as follows which will be paid upon acceptance of deliverables by the client;

Survey Report. Soft copies in MS-Word and PDF as well as ten (10) hard copies. In addition, socio economic data such as population , employment, school attendance, income level, vehicle ownership at zonal level should be provided in Excel format. The time and space stamped survey data in Excel format shall also include household interview survey, road interview survey, public transport survey, vehicle occupancy survey, traffic counts, travel speed, all manual classified count at cordon/screen line and critical road segment and any other surveys conducted by the consultant for this report and road inventory data. GIS database of zones with population, employment, income levels and vehicle ownership information. Also, GIS database of road a network with data such as link lengths, number of lanes, land use, important features/places, traffic volumes, capacities, etc included. GIS data should be in either ArcGIS or MapInfo format. Fully operational and ready to use transport model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.	Sr #	Deliverables	Timeline (from start of project)	Payment Schedule (Priority line on BRT mode)	Payment Schedule (Priority Line on LRT/MRT mode)
Survey Report. Soft copies in MS-Word and PDF as well as ten (10) hard copies. In addition, socio economic data such as population, employment, school attendance, income level, vehicle ownership at zonal level should be provided in Excel format. The time and space stamped survey data in Excel format shall also include household interview survey, road interview survey, public transport survey, vehicle occupancy survey, traffic counts, travel speed, all manual classified count at cordon/screen line and critical road segment and any other surveys conducted by the consultant for this report and road inventory data. GIS database of zones with population, employment, income levels and vehicle ownership information. Also, GIS database of road a network with data such as link lengths, number of lanes, land use, important features/places, traffic volumes, capacities, etc included. GIS data should be in either ArcGIS or MapInfo format. Fully operational and ready to use transport model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.	1	<u> </u>	2 weeks	2.5%	2.5%
employment, income levels and vehicle ownership information. Also, GIS database of road a network with data such as link lengths, number of lanes, land use, important features/places, traffic volumes, capacities, etc included. GIS data should be in either ArcGIS or MapInfo format. Fully operational and ready to use transport model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.	2	Survey Report. Soft copies in MS-Word and PDF as well as ten (10) hard copies. In addition, socio economic data such as population, employment, school attendance, income level, vehicle ownership at zonal level should be provided in Excel format. The time and space stamped survey data in Excel format shall also include household interview survey, road interview survey, public transport survey, vehicle occupancy survey, traffic counts, travel speed, all manual classified count at cordon/screen line and critical road segment and any other surveys conducted by the consultant for this report and road inventory	2 months	12.5%	12.5%
model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.	3	GIS database of zones with population, employment, income levels and vehicle ownership information. Also, GIS database of road network with data such as link lengths, number of lanes, land use, important features/places, traffic volumes, capacities, etc included. GIS data should be in either ArcGIS or MapInfo format.	3 months	2.5%	2.5%
5 Training six personnel of the client in using the 6 months 2.5% 2.5		model in Cube/EMME/VISUM/TransCAD or equivalent software with licences and files with links, links characteristic, nodes, zones, trip generation/attraction model for each scenario, modal split models, O-D tables, volume-delay functions, transit and road network, etc.			12.5% 2.5%

	fully operational travel demand forecasting model delivered in deliverable 4. Training should include but not limited to introduction to the basics of the software(network mapping and editing, zone and OD matrix formulations, mode split modeling, traffic and transit assignment modeling), model building, model modifications, scenario analysis and report building.			
6	An intermediate report on network study outlining the type of mass transit and priority lines will be submitted to the client. Soft copies in MS-Word and PDF as well as ten (10) hard copies. After approval from the client, consultant will proceed to feasibility study stage for the priority line. Report should contain estimated riderships, line lengths, locations and number of stations and high resolution maps.	3.5 months	7%	10%
7	Preliminary design report of priority line with alignment of the preferred alternative approved by PMA. stations, depot, control centre, terminal, night parking places, and interchanges. Soft copies in MS-Word and PDF as well as ten (10) hard copies. Plans (if any) showing land acquisition requirement along the corridor. All preliminary drawings in AutoCAD, PDF and hard copy format (10 copies). 3D design visualization video of the priority MTS line.	4.5 months	10.5%	15%
8	Draft Feasibility Study Report for priority line including all tasks mentioned in scope of services. Soft copies in MS-Word and PDF as well as ten (10) hard copies	5 months	3.5%	5%
9	Feasibility Study Report for priority line including all tasks mentioned in scope of services. Soft copies in MS-Word and PDF as well as twenty (20) hard copies	6 months	24.5%	35%
10	Working Papers on Key Study Activities. Soft copies in MS-Word and PDF as well as four (4) hard copies.	6 months	2%	2.5%

The liquidity damages @ 5% of the contract value of the delayed tasks shall be applicable per month for delay in overall services/task/deliverables beyond six (6) months.

5.3 Terms and Conditions of Payment

(a) Payments shall be made on submission of each deliverable to the satisfaction of the Client. The client has the right to hold payment for a given deliverable, if the deliverable

is not complete or satisfactory for the client

- (b) As soon as practicable and preferably within thirty (30) days after the submission of a deliverable by the consultant and its aceptence by the client, the Consultant shall submit their bill in duplicate to the Client. Each bill shall be supported by deliverables completed as per the milestone/time line of Service delivery given in Clause no. 5.4 above.
- (c) Payment reconciled with Consultant's invoice shall be made into the Consultant's bank account designated by the Consultant.

6.1 Additional Services

Additional Services mean:

- (a) Services as required by the Client outside the Scope of Services described in Section 5 Annex-A;
- (b) Services performed during the extended period pursuant to Sub-Clause 6.1, beyond the originally scheduled time for completion of the Services; and
- If, in the opinion of the Client, it is necessary to perform Additional Services during the currency of the Contract for the purpose of the Project, the Consultant, with the prior written authorization of the Client, shall carry out such Additional Services on the basis of the billing rates set out in the Contract/financial bid.

SAMPLE FORMS/AFFIDAVITS/LETTERS

SAMPLE PERFORMANCE SECURITY LETTER

Issuing Authority:
Date of Issuance:
Date of Expiry:
Claim Lodgment Date:

WHEREAS [Name and Address of the Consultant] (hereinafter called "the Consultant") has
agreed to supply the Services and render the Services against [Name of the Assignment]
(hereinafter called "the Contract") for the Contract Value of PKR (in figures
) (in words).
AND WHEREAS it has been stipulated in the Tender Document that the successful Operator
shall furnish Performance Security, within ten (10) working days of the receipt of the
Acceptance Letter from the Purchaser, in the form of a Bank Guarantee, issued by a
scheduled bank operating in Pakistan, as per the format provided in the Bid Document or in
another form acceptable to the Client, valid from the date of issue until all obligations have
been fulfilled in accordance with the Contract;
AND WHEREAS [Name of the Bank] having registered office at [Address of the Bank]
(hereinafter called "the Guarantor") has agreed to give the Consultant a Guarantee;
(heremarter taneu the duarantor) has agreed to give the consultant a duarantee,
THEREFORE the Guarantor hereby affirms to bind himself, his successors and his assigns to
the Client, for the sum of PKR (in figures) (in words)
the dient, for the sam of the (in figures) (in votas)
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as
and undertakes to pay to the Client, upon receipt of his written demand(s), any $sum(s)$ as
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions:
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions: 1. If the Consultant commits a default under the Contract;
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions:
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions: 1. If the Consultant commits a default under the Contract;
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions: 1. If the Consultant commits a default under the Contract; 2. If the Consultant fails to fulfill any of the obligations under the Contract;
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions: 1. If the Consultant commits a default under the Contract; 2. If the Consultant fails to fulfill any of the obligations under the Contract; 3. If the Consultant violates any of the provisions of the Contract.
and undertakes to pay to the Client, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Client having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any/all of the following conditions: 1. If the Consultant commits a default under the Contract; 2. If the Consultant fails to fulfill any of the obligations under the Contract; 3. If the Consultant violates any of the provisions of the Contract. Provided that the Purchaser shall specify the occurred condition(s) owing to which the said

Guarantor within thirty working days after the expiry of the Guarantee.

This guarantee shall remain valid up to obligations have been fulfilled in accordance with	
Date thisday of 2013.	
GUARANTOR	
Signature	
CNIC #	
Name	
Designation	
Address	

SAMPLE AFFIDAVIT

(On a Legal / Revenue Stamp Paper of PAKISTAN / of the bidder's country in the relevant value OR on the bidder's letter head officially signed and stamped)

INTEGRITY PACT

DECLARATION OF FEES, COMMISSIONS AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS/CONTRACTORS OF GOODS, SERVICES & WORKS

[The Consultant] hereby declares its intention not to obtain or induce the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Punjab or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoPb) through any corrupt business practice.

Without limiting the generality of the foregoing, [The Consultant] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoPb, except that which has been expressly declared pursuant hereto.

[The Consultant] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoPbb and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[The Consultant] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoPb under any law, contract or other instrument, be voidable at the option of GoPb.

Notwithstanding any rights and remedies exercised by GoPb in this regard, [The Consultant] agrees to indemnify GoPb for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoPb in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [The Consultant] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoPb.

			Signature & Stamp
Subscribed and sworn to me this	_ day of	2013	

Instructions for Preparation of Power of Attorney

- a) To be executed by an authorized representative of the bidder.
- **b)** 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 executants and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- **c)** 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 favor of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.
- **d)** In case the Application is signed by an authorized Director / Partner or Proprietor of the Bidder, a certified copy of the appropriate resolution / document conveying such authority may be enclosed in lieu of the Power of Attorney.

SAMPLE POWER OF ATTORNEY

(On a Legal / Revenue Stamp Paper of PAKISTAN / of the bidder's country in the relevant value OR on the bidder's letter head officially signed and stamped)

We (name of the company and address of the registered office) do hereby appoint and authorize Mr. / Ms. (full name and residential address) bearing Pakistan's Computerized National Identity Card (CNIC) no. (Complete CNIC No.)/Passport no. (in case of foreign National) who is presently engaged with us and holding the position of our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for (name of the Assignment) in response to the bids invited by the (name of the Client) including signing and submission of all documents and providing information/responses to (name of the Client) in all matters in connection with our Bid.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this day of	2013
For	
(Signature)	
(Name, Designation and Address)	

SAMPLE UNDERTAKING

It is certified that the information furnished here in and as per the document submitted is true and correct and nothing has been concealed or tampered with. We have gone through all the conditions of bid and are liable to any punitive action for furnishing false information / documents.

Dated this	day of	2013
Signature		
		(Company Seal)
In the capacit	y of	
Duly authoriz	zed to sign bids f	for and on behalf of:
(Entity Name	/Address)	