

**CHIEF MINISTER
BUS RAPID TRANSIT SYSTEM
FOR CITY OF LAHORE**



PRELIMINARY INFORMATION MEMORANDUM



Transport Department

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1. INTRODUCTION

Lahore is the second largest urban centre in Pakistan. It is the provincial capital for most populous province of Pakistan Punjab with population of more than 9 Million inhabitants in 2006. The transport demand amounts to some 13.5 million daily motorized trips to work, shopping and recreation other than walking. The rising incomes of growing population have generated increasing travel and demands for higher quality transport.

1.1 PROJECT INFORMATION

Over the past 15 years the rapid growth in population and vehicle ownership has steadily worsened traffic congestion. Vehicle registration has increased from 56 to over 116 per 1,000 inhabitants. Cars have increased over the same period from 13 to 35 per 1,000 inhabitants and are now increasing at the rate of 10 to 15% per annum. With a population predicted to rise to over 15 Million by 2015 and the economic growth running at the rate of 5% p.a this situation will only get worse, in the absence of any proposed transport infrastructure improvements.

In order to cope with the ever increasing traffic congestion on the Lahore road network, JICA carried a comprehensive study on the transportation system in Lahore. The study formulated a transportation plan for the city for next 20 years. The master plan identified following two corridors requiring a Mass transit system

- **Ferozpur Road Corridor** **28.7 Km**
- **Multan Road Corridor** **12.4 Km**

The public transport demand on the above said corridors have increased so significantly that a normal bus system would not be able to cater the public transport needs on the said corridors. The only solution to this would be development of a “Rapid Transit System”.

1.2 SALIENT FEATURES OF THE PROJECT

The BRT project has been conceptualized to encourage private sector's interest in transport sector of Lahore city. GoPb and LTC would ensure investment friendly environment to the private sector to ply safe, comfortable, reliable and affordable public transport on sustainable basis ensuring reasonable profit. Salient Features of the Project are as under:

- Feasibility, detailed design, construction, operation and maintenance and transfer of BRT on BOT basis against a concession period and exclusive right of operation.
- Induction and operation of required number of new buses on the two corridors equipped with electronic fare collection and Bus management system.
- The fare structure will be decided by LTC at all times keeping in view the interest of the city commuters and sustainability of the project.
- Fare collection from commuters and advertisement on buses are major revenue streams of the project.

1.3 PROJECT BENEFITS

The major socioeconomic benefits of the project include:

- i. Savings in Vehicle Operating Costs (VOC) and maintenance costs
- ii. Decrease in travel time and traffic congestion
- iii. Reduced strain on accident and emergency response system
- iv. Smoother and safer intra-city travel
- v. Preference of use of buses on personal vehicles will be fuel efficient
- vi. Increase in economic activities
- vii. Increase in employment opportunities during construction and post-construction period
- viii. Additional revenue via advertisement buses

- ix. Maintain standards of safety and speed and manage traffic equitably, which may reduce the economic cost of travel on the aforementioned traffic routes.
- x. Reduce traffic load from the areas of high activity, providing ample capacity on the main boulevards to cater for the prospective growth in the city traffic.
- xi. The implementation of this project on Public Private Partnership (PPP) basis will resolve the immediate problem of financing this project from scarce government resources and ensure timely and efficient implementation of this project.

2. SCOPE OF WORK

2.1 RESPONSIBILITIES OF THE PRIVATE PARTY

The private party will be responsible for the overall implementation of the project, including but not limited to, the Design, Build, Finance, Operation and Maintenance functions of the overall project. As mentioned above, project activities include:

2.1.1 Broad Parameters

Broad parameters of the BRT project are as follows:

- | | | |
|----|--------------------------------------|---------|
| a. | BRT on Ferozpur Road Line Corridor-I | 28.7 Km |
| b. | BRT on Multan Road Line Corridor-II | 12.4 Km |

The scope of work includes design, build, finance, operate, and transfer of project on the above two corridors on BOT basis:

a) BRT Geometric and System Design Recommendations

Corridor 1

Based on the ridership data of the LRMTS Feasibility Study, the BRT system on Corridor 1 is expected to carry 9,000 peak period passengers per hour per direction

(pphpd) by the year by 2011, 20,000 pphpd by the year 2021, and 24,000 pphpd by 2025. However, predicting the number of future passengers is more an art than a science. For engineering purposes it is much safer to err on the side of designing for more passengers than you get.

A BRT system can be built in Corridor I with the nearly the same capacity as the proposed metro system, with an average operating speed of 26 km/h, starting at 9,000 pphpd and increasing to 24,000 pphpd over time. TransMilenio in Bogotá is transporting 38,000 pphpd.

Corridor 2

Based on the ridership data of the LRMTS Feasibility Study, the BRT system on Corridor 2 is expected to carry 7,300 peak period passengers per hour per direction (pphpd) by the year by 2011, 15,100 pphpd by the year 2021, and 20,300 pphpd by 2025. However, predicting the number of future passengers is more an art than a science. For engineering purposes it is much safer to err on the side of designing for more passengers than you get.

b) Design Specifications:-

Reaching these levels of capacity in a BRT system requires careful design and engineering. To reach these levels, BRT system would need to have the following characteristics:

- i. The BRT system should occupy the central verge of the roadway, rather than the curb lanes. This will avoid conflicts with turning traffic, pedestrians, stopping taxis and delivery vehicles, illegally parked vehicles, etc.
- ii. Passengers should pre-pay to enter each bus station, and each station platform should be elevated to the height of the bus floor.
- iii. The most efficient and workable BRT design is to be proposed. Exclusive bus lanes should be predominantly maintained at grade but physically separated from the rest of the traffic by a physical barrier, and enforcement of onto the

bus way must be maintained through regulatory signing and with additional police at the intersections during the course of operations. Fines for illegal encroachment on the bus way must be strictly enforced.

- iv. An overtaking lane at stations should be included in the BRT design. In other words, the bus way needs two lanes in each direction at each station, and one lane at least 10 feet wide in each direction at all other points. The overtaking lane is critical to relieve bus congestion.
- v. Each station should have at least two platforms.
- vi. The distance between bus stations should be brought down from the current average 1000 meters to an optimal level of 500 meters. This will slow down bus speeds somewhat (30 to 25km/h) but it will reduce total trip time by reducing walking distances. Approximately fifty six stations on Corridor-I with 112 pre-paid enclosed platforms should be built along Corridor I. Similarly twenty four stations on Corridor-II with 48 pre-paid enclosed platforms should be built along.
- vii. For Corridor I, two hundred (200) buses and for Corridor II one hundred buses (100) with capacity of 75-passengers are required (other spec as per LTC bus specification Annex- G).
- viii. Pedestrian access to the central verge should be via pedestrian overpasses and underpasses unless impractical.
- ix. At un-signalized intersections and median cuts for U-turns, a secure Corridor for BRT is to be maintained by deployment of security personnel and provision of removable barriers.
- x. At signalized intersections special signal pre-emption plan supporting the buses is to be introduced to lawfully secure the BRT corridor. The pre-emption phase is to be activated through auto detectors placed in advance of the intersection with supplementary activation control within the bus.
- xi. If it is determined that at-grade design of BRT system at any intersection is expected to significantly hamper the cross street traffic or the turning traffic, causing Level of Service F (based on the standards provided in the latest edition of the Highway Capacity Manual of Transportation Research Board); or

is expected to create a safety related problem likely to cause injuries or deaths to the citizens, a grade separated design solution for securing the BRT corridor shall be provided.

- xii. Visually distinct pavement color for identifying the secured BRT corridor is to be provided.

2.2 INSTITUTIONAL ROLE OF THE LAHORE TRANSPOT COMPANY

AUTHORITY (LTC)

Lahore Transport Company (LTC) has been established under the provisions of Provincial Motor Vehicles Ordinance (Amendment) Act 2009 as an Urban Transport Company. Government of Punjab notified the company vide. No. SO (NTS) 2-88/2009 dated 1st Dec., 2009. LTC has been registered under section 42 of Companies Ordinance 1984. LTC is regulatory body which has been tasked to ensure a smooth running transport system in Lahore which will provide the commuters a safe, efficient and affordable transport service.

As per the provisions of the said ordinance, LTC is now the sole organ responsible for custody of all transport infrastructures in Lahore and its operations through a network of private operators. This infrastructure includes Bus Stops, Bus Shelters, Bus Bays, Bus Depots and Bus Terminals and BRT.

LTC is managing the passenger services through a variety of transport vehicles covering High Occupancy Vehicles (HOV) such as Buses and Low Occupancy Vehicles (LOV) such as Vans, Coasters, Hi-Ace, as well as certain approved Rickshaw models.

3 EOI EVALUATION PROCESS

The selection of the private party will be done on the basis of technical & financial capability of the bidders; as reflected from their EOI proposals.

3.1 CRITERIA FOR PRE-QUALIFICATION

The capability and competence of the bidder to design, build, finance, operate and transfer the Project shall be assessed at this stage. The evaluation shall be based upon following:

3.1.1 Evaluation of EOI

a) Firm's Professional Standing and Capability	20 Points
b) Financing Capability	40 Points
c) Project Approach and Methodology	20 Points
d) Relevant experience and Skill	20 Points

The maximum score that can be received against are 100 and passing score is 70. Bidders who pass selection criteria will be issued RFPs and invited to submit proposals.

3.1.2 Mechanism for Evaluation

The bidders will be evaluated on the basis of following technical criteria:

1) Firm's Professional Standing and Capability

Bidders should provide necessary information and details about their market standing in the concerning sector. In this regard firms/consortiums must highlight their technical capability in managing similar tasks and should provide details of their professional partnerships, association with other firms, membership of professional bodies, relationship with the government etc. The bidders should also provide the history of their financial statements including recent financial standing, tax records etc.

2) Financing Capability

Bidders/Consortium with net worth/net assets of more than USD 10.0 Million will be awarded maximum points. Bidders/Consortium with net worth/net assets of between USD 5.0 to 10.0 Million will be awarded half points. Bidders/Consortium with net worth/net assets of less than USD 5.0 Million will be awarded 0 points. Bidders must submit audited financial statements or bank certificates indicating the average balance for last 3 years.

3) Project Approach and Methodology

The private party/ consortium will propose its overall approach towards the implementation of this project. The private party should provide their insight that may demonstrate their understanding about the project. In the next stage; the party should spell out its strategy to carry forward different project activities in time function. The strategy should state the construction, revenue collection and other phases of the project. This is advisable that private party should mention about different models and functions in a practicable, methodical and achievable manner.

4) Relevant Experience

The bidders should demonstrate that they have the requisite qualification, skills and expertise to implement the project smoothly and efficiently. In this regard the project company should provide details about the history of its construction work/ assignments, particularly of BRT projects and Bus Operations. They must provide details of professionals work performed by their employees and submit CVs of their working staff and associates. Bidders should provide details about their accomplishments in the concerning sector. They must describe their role in the project and the project's outcome. The BRT project is being implemented on public private partnership basis; parties which demonstrate a history of successfully implementing similar projects under

similar conditions will be preferred. In short, Bidders will be awarded maximum points if they demonstrate their financial strength and marketing capability, propose sound concept plans and designs, develop efficient timelines for project execution, and demonstrate how they would make “BRT” a PPP success.

4 EOI DOCUMENTATION PACKAGE

The following document and information shall be provided by each applicant to be considered for prequalification for the project:

- i. Name, Contact details and profile of Firm/Consortia.
- ii. Legal status of the firm, organization structure and nature of business operations.
- iii. Financial standing of the firm/consortium supported by last 3 years Audited Annual Reports.
- iv. Banker’s certificate or audited statements regarding credit worthiness and available credit lines to the firm /consortium.
- v. Outline Methodology of the firm/consortium for undertaking the project along with credentials of technical experts who will operate the Project.
- vi. A certificate / affidavit that Bidder is not blacklisted by any Government Institution.
- vii. Any other information in support of capability and experience of the firm/consortium.

The Lahore Transport Company reserves the right to accept or reject any or all of the EOIs at any stage without assigning any reason thereof.