

TOLL SERVICES SCOPE OF WORK

Purpose

A Toll Services Consultant (TSC) for the Maine Turnpike Authority (Authority) shall provide qualified technical and professional personnel to perform the duties and responsibilities assigned under the terms of this Contract.

General Requirements

The TSC must provide sufficient staffing levels, both in numbers and appropriate personnel, to adequately address the scope, magnitude and number of assignments.

The TSC shall be responsible for the thorough understanding of the requirements pertaining to the services required. All services provided by the TSC shall be in strict conformance with the Authority's Engineering Consultant General Conditions, unless detailed otherwise in this Scope of Work. The TSC shall become familiar with the Authority's procedures, presentation and coordinating requirements necessary for the effective performance of these services.

Services Required Under Contract

Toll Services shall be used to supplement the Authority's forces. The Authority may issue multiple contracts to multiple qualified engineering consultants. Toll Services encompasses multiple disciplines including support services (CADD support, clerical, etc), planning, and engineering as requested for planning, preliminary design, final design, maintenance and operations of the Authority's current Transcore/UTS toll collection system both electronic and manual. Specific Services requested under this contract may include but is not limited to:

- **Planning:**
 - Finalizing planning & permitting requirements, and subsequent design and construction support of toll plaza projects;
 - Inspection and recommendations regarding existing conditions and needs at current toll plazas, including electrical, civil and toll system;
 - Perform studies and provide reports regarding tolling systems and tolling methods;
 - Revenue forecasting as relates to toll system capability at specific locations
 - Prepare Toll and Traffic revenue certificates to support future toll adjustments;
 - Perform investment grade revenue studies.
- **Engineering:**
 - Design and construction bid documents for a new EZPass electronic tolling lane at an existing cash toll plaza;

- Final design and construction bid documents for a new Toll Plaza, both electronic and cash, in a new location;
- Design of Civil/Electrical needs at an existing Toll Plaza, including incorporation of selected toll system components and assuring compatibility and reliability of system during design life;
- **Maintenance & Operations:**
 - Support on-going maintenance and operations of Transcore/UTS toll systems at various toll plazas as needed;
- **Environmental related:** Provided needed services to support engineering projects assigned under this contract including wetland permit application assistance and review, natural resources identification and assessment, wetland mitigation services, cultural resources and architectural historian services, storm-water management, and Hydraulic & Hydrology studies as requested.
- **Information Services:**
 - Support computer interface between the TransCore Infinity system and the MTA back office applications, including providing analysis of design modifications
 - Development/approval of Test Plans to exercise all TransCore ETC lane equipment functionality, especially related to TransCore hardware/software upgrades. This includes cash lanes, dedicated lanes and highway speed lanes.
 - Development/approval of Test Plans to verify the back office data interface, especially related to TransCore software upgrades and to the replacement of TransCore ETC equipment.
 - Development of Fare Collections training materials especially with regard to TransCore MLT enhancements; support of Fare Collections during training.
 - Support of Information Technology and Fare Collections in resolving TransCore lane equipment performance anomalies.
 - Participate in Acceptance Testing of new TransCore ETC lane equipment and technology as it is rolled out to replace existing TransCore equipment.
 - Provide expert level support of the various TransCore ETC components, including:
 - Latest Automatic Vehicle Classification (AVC) technologies including, ensuring AVC performance as prescribed in the contract between the MTA and TransCore
 - VES processing using TransCore's VCARS violation image capturing equipment and OCR engine
 - Infinity MLT screens
 - ITL/PFD functionality
 - DVAS Functionality
 - Multi-protocol readers
 - Lane Controllers, Plaza Controllers, and the CPC

- Advise MTA on Inter Agency Group (IAG) agreements and requirements and general interoperability.
- Advise MTA of tolling system industry trends, and recommend changes according to best practices. Special emphasis on other agencies using the Infinity system and concerns they have had or modifications they have had to improve the performance of the Infinity system.
- Understand the complexity of the MTA's mixed open/closed barrier system, especially with regard to revenue forecasts.
- Provide the required data analysis to schedule lane closures for maintenance work.
- Provide MTA management with data analysis regarding traffic pattern trends and comparative reporting using back office toll system data as well as traffic count station data.
- Provide special data analysis as needed, e.g. the license plate survey analysis, traffic diversion studies.
- Provide consultation on network infrastructure planning and topology design, including bandwidth requirement and service recommendations.
- Provide consultation on electrical power requirements
- Provide consultation on environmental controls and maintenance, including outside cabinets
- Provide consulting services related to the transition to AET or a variation of AET.
- **Emergency Assistance as requested.**

Additional Services Upon Request

The TSC shall provide additional services of a general overall nature related to a project as the Authority may specifically request.

Task/Project Order Process

All services shall be managed through the Task/Project Order Process. All of these services shall be initiated by the Authority through the Task/Project Order Process. Judgment on the content of the scope of the Task/Project Order will be with the Authority.

No work shall proceed until a Task/Project Order has been approved and executed by the Authority and executed by the TSC. In order to satisfactorily complete a Task/Project Order, the TSC will be required to provide the following information:

1. Estimated number of hours by position level, required to satisfactorily complete the project requirements;
2. Personnel proposed for assignment to the project; including contact person;
3. Total estimated cost to complete the assignment;

4. A written understanding of the project requirements, including deliverables; and
5. A project schedule complete with milestones and completion date.

Coordination and Administration of Services

The TSC will coordinate its activities with assigned Authority personnel throughout the course of this contract. Early on, the TSC will establish a means of coordinating and reporting its activities with the designated project liaison to ensure an expeditious exchange of information. A detailed description of all activities conducted under this Contract shall be provided as part of each month's progress report, including the activities of the TSC's key personnel and any on-call services provided at the request of the Authority.

The TSC may be requested to contact and/or meet with representatives of state, municipal and/or other agencies. The TSC shall coordinate with the Authority staff on all meetings so that Authority personnel can attend, if necessary. The TSC shall prepare Memoranda of Record for all meetings.

All correspondence, invoices and transmittals shall be referenced by the Authority's Project number, the Authority's Contract number and when appropriate, the specific Task/Project Order number.

Professional Liability Insurance

The subsection "Professional Liability" of the Engineering Consultant General Conditions is deleted and replaced by the following paragraph for the purpose of work under this Contract.

The Consultant and its Sub-consultant(s) shall each purchase and maintain a Professional Liability insurance policy for negligent acts, errors and omissions that provides minimum liability coverage of \$2,000,000 per claim and annual aggregate. The Consultant's policy shall cover negligent acts, errors or omissions by the Consultant and Sub-consultant(s) engaged by Consultant and other any person or entity for whom the Consultant is legally liable arising out of the rendition of services pursuant to the Contract. Each Sub-consultant's policy shall cover negligent acts, errors or omissions of the Sub-consultant. The Authority reserves the right to adjust liability coverage on a project-by-project basis as it deems appropriate.

Responsibilities of the Authority

The Authority will furnish, without cost to the TSC, services and data to the TSC in connection with services performed under the terms of this contract, as deemed necessary.