



**CENTRAL TEXAS
Regional Mobility Authority**

AGENDA ITEM #5 SUMMARY

Approve a new work authorization with Telvent USA Corporation to assist in the oversight of the design-build contractor's design for the toll system and toll-related network infrastructure for the MoPac Improvement Project.

| | |
|---------------------------|---------------------------------|
| Strategic Plan Relevance: | Regional Mobility |
| Department: | Operations |
| Associated Costs: | Not to Exceed \$224,263.00 |
| Funding Source: | MoPac Improvement Project Funds |
| Board Action Required: | Yes |

Description of Matter: This proposed work authorization with Telvent USA Corporation provides for the toll system integrator's attendance at meetings, workshops and plan reviews to facilitate the design of the infrastructure for the MoPac Improvement Project toll system, including but not limited to toll related network infrastructure; integration of the toll system work into the design-build contractor's schedule; and timely response to toll system related issues during the design and construction of the MoPac Improvement Project.

This is an as-needed work authorization based on anticipated work estimated by Mobility Authority staff and the GEC. Based on the proposed Scope of Services, anticipated project requirements, and the level of effort included in this work authorization, the not-to-exceed fee is appropriate.

| | |
|--------------------------|----------------------------------------------|
| Reference documentation: | Draft Resolution Work Authorization No. 8 |
|--------------------------|----------------------------------------------|

Contact for further information: Tim Reilly, Director of Operations

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 13-__

**APPROVING A NEW WORK AUTHORIZATION WITH TELVENT USA
CORPORATION TO ASSIST IN THE OVERSIGHT OF THE DESIGN-BUILD
CONTRACTOR'S DESIGN FOR THE TOLL SYSTEM AND TOLL-RELATED
NETWORK INFRASTRUCTURE FOR THE MOPAC IMPROVEMENT PROJECT.**

WHEREAS, effective April 27, 2005, the Mobility Authority executed a Contract for Toll System Implementation with Caseta Technologies, Inc., subsequently acquired by Telvent USA Corporation, for Telvent to provide toll systems implementation services to the Mobility Authority (the "Telvent Contract"); and

WHEREAS, development of the MoPac Improvement Project will require the design and installation of a toll system and related network infrastructure; and

WHEREAS, the Executive Director and Telvent have discussed and agreed to a new work authorization under the Telvent Contract for certain toll system implementation services needed for the MoPac Improvement Project; and

WHEREAS, the Executive Director recommends approval of the new work authorization attached as Exhibit 1.

NOW, THEREFORE, BE IT RESOLVED that the new work authorization with Telvent is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director may finalize and execute for the Mobility Authority the new work authorization in the form or substantially the same form attached as Exhibit 1.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27th day of February, 2013.

Submitted and reviewed by:

Approved:

Andrew Martin
General Counsel for the Central
Texas Regional Mobility Authority

Ray A. Wilkerson
Chairman, Board of Directors
Resolution Number: 13-__
Date Passed: 02/27/2013

EXHIBIT 1 TO RESOLUTION 13-
NEW TELVENT WORK AUTHORIZATION

[on the following 7 pages]

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION

WORK AUTHORIZATION NO. 8

TOLL SYSTEM IMPLEMENTATION

MOPAC IMPROVEMENT PROJECT

THIS WORK AUTHORIZATION (“WA No.8”) is made pursuant to the terms and conditions of that certain Contract for Toll System Implementation dated April 27, 2005, between the Central Texas Regional Mobility Authority (the “Authority”) and Telvent USA Corporation, as the successor in interest to Caseta Technologies, Inc. (the “Contractor,” also referred to in attachments to this WA No. 8 as the “System Integrator” or “SI”), as that contract has been amended on February 26, 2010, and on May 2, 2011 (the “Contract”).

PART I. The Contractor will perform toll system implementation services described in **Attachment A** to this WA No. 8. The Contractor’s duties and responsibilities to coordinate with the Authority’s Design/Build Contractor for the MoPac Improvement Project are detailed in (i) the MoPac - Dynamic Pricing and Toll System Layout in **Attachment B**, (ii) the Express Lane Toll Facilities Guidelines in **Attachment C**, and (iii) the Toll Facility Responsibility Matrix in **Attachment D**.

PART II. The maximum amount payable to Contractor under this WA No.8 is \$224,263.00. This amount is based on the cost estimate shown in **Attachment E**.

PART III. Payment to the Contractor for the services established under this WA No. 8 shall be made in accordance with the Contract.

PART IV. This WA No. 8 is effective on the date both parties have signed this WA No. 8. This WA No. 8 will terminate on the D/B Contractor’s Substantial Completion date or upon payment of the maximum amount payable in **Part II**, whichever date is first, unless extended as provided by the Contract. The work shall be performed in accordance with the Preliminary Project Schedule and Milestones set forth in **Attachment F**.

PART V. This WA No. 8 does not waive any party’s responsibilities and obligations established by the Contract; and except as specifically modified by this WA No. 8, all such responsibilities and obligations under the Contract remain in full force and effect.

IN WITNESS WHEREOF, this Work Authorization No. 8 is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE CONTRACTOR: Telvent USA Corporation

| | |
|------------------------------|------|
| Signature | Date |
| | |
| Typed/Printed Name and Title | |

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

| |
|----------------------------------------|
| |
| Mike Heiligenstein, Executive Director |
| |
| Date: |

LIST OF ATTACHMENTS

- ATTACHMENT A SCOPE OF WORK
- ATTACHMENT B MOPAC - DYNAMIC PRICING AND TOLL SYSTEM LAYOUT
- ATTACHMENT C EXPRESS LANE TOLL FACILITIES GUIDELINES
- ATTACHMENT D TOLL FACILITY RESPONSIBILITY MATRIX
- ATTACHMENT E FEE SCHEDULE/BUDGET
- ATTACHMENT F PRELIMINARY PROJECT SCHEDULE AND MILESTONES

ATTACHMENT A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

TOLL SYSTEM AND TOLL-RELATED ITS DESIGN, COORDINATION, AND D/B CONTRACTOR OVERSIGHT

MoPac Improvement Project

SCOPE OF WORK for SYSTEMS INTEGRATOR

A1.0 General

A1.01. Background

The Central Texas Regional Mobility Authority (“Authority”) is developing the MoPac Improvement Project on Loop 1 (MoPac) from Parmer Lane to Cesar Chavez Street, for a total length of approximately 11.2 miles (the “Project”). The Project includes construction of one tolled Express Lane in each direction which will be dynamically priced.

The Authority is procuring a Design/Build Contractor (“D/B Contractor”) and will enter into a design-build contract (the “D/B Contract”) with the D/B Contractor who will design and build the Project. The D/B Contractor will be responsible for the design and construction of the infrastructure required to install a dynamic tolling system (“Toll System”) and related Intelligent Transportation Systems in support of the Toll System (“Toll-Related ITS”), as further described in this Work Authorization No. 8 (the “Toll System Infrastructure”).

A1.02. Summary of Scope of Work

The Scope of Work for this Work Authorization No. 8 includes:

- SI shall coordinate with the GEC and D/B Contractor and attend meetings, workshops and plan reviews to facilitate the design and timely construction of the Toll System Infrastructure by the D/B Contractor.
- SI shall provide the location and site requirements, such as height of poles and conduit requirements for the design of the Toll System Infrastructure.
- SI shall consult with and advise the D/B Contractor on the design and construction scheduling for the Toll System Infrastructure, and provide the Authority a written acceptance or specific exceptions to the D/B Contractor’s design and the project schedule for installation of the Toll System Infrastructure. SI shall be available during the design and construction of

ATTACHMENT A

the Toll System Infrastructure to promptly respond to requests for information from the D/B Contractor.

SI shall ensure the design and schedule for construction of the Toll System Infrastructure by the D/B Contractor meets all requirements and specifications needed to serve and install the Toll System and Toll-Related ITS.

A2.0 General Description – Express Lane Infrastructure and Site Work

The Project's Toll System will be an all-electronic toll (AET) facility that uses a dynamic pricing structure to manage the operations of the Express Lanes. The proposed facility will consist of four (4) gantry locations, five variable toll message signs (VTMS) with VTMS Cameras, traffic detection systems (TDS) every ½ mile, and CCTV Cameras which shall provide visual coverage of the entire project. Preliminary facility layout is shown in *Attachment B - "MoPac - Dynamic Pricing and Toll System Layout"*. Locations of tolling facilities are approximate and are subject to change as the D/B Contractor progresses towards the completion of plan development.

The Toll System for the Project will be fully compatible with the Toll Collection System (TCS) which has been designed and implemented for the 183A Toll Road and 290 East (Manor Expressway) Toll Projects, using Automatic Vehicle Identification (AVI) technology, a Violation Enforcement System (VES) with an integrated camera and triggering system to capture referenced digital images of license plates, and a Remote Online Management System (ROMS). The Toll System shall be interoperable with other Texas electronic toll collection systems.

A3.0 Detailed Scope of Services

The D/B Contractor is responsible for the design and construction of the Toll System Infrastructure, as established by the D/B Contract. The general locations, layouts, and guidelines for the Toll System, as established by the D/B Contract, are indicated in *Attachment C- "Express Lane Toll Facilities Guidelines"*.

The SI is responsible for the coordination and project interface activities to facilitate the design and construction of the Toll System Infrastructure identified in *Attachment D – "Toll Facility Responsibility Matrix"*. The SI shall also work with the Authority, its GEC, the D/B Contractor, and others as described herein.

A3.01. Coordination, workshops, meetings, and plan reviews

The SI is required to participate in meetings and workshops to communicate to the D/B Contractor specific, detailed information regarding the proposed Toll System components and Toll-Related ITS elements to complete the design and construction of the Toll System Infrastructure. The SI will be responsible for maintaining relationships with a wide variety of third parties, including designers, contractors, and various suppliers. The SI shall:

- Attend up to two Partnering workshops.
- Attend weekly design coordination meetings.
- Provide "over the shoulder" reviews as necessary.

ATTACHMENT A

A3.02. Toll System and Toll-Related ITS requirements and Site Design

The SI shall provide to the D/B Contractor the details and technical requirements needed to construct the Toll System Infrastructure so that it is fully compatible with and meets the requirements for the Toll System and Toll-Related ITS.

The SI shall be responsible for assuring the Toll-Related ITS, which consists of the TDS, CCTV Camera, VTMS, and VTMS Camera systems, are properly placed and designed to meet the tolling and management requirements of the Project. The SI shall provide D/B Contractor:

- Location of TDS, CCTV Camera, VTMS, and VTMS Camera structures (SI shall work cooperatively with the D/B Contractor to identify cost effective designs). This information will be required for the 30% submittal by the D/B Contractor, as established in the D/B Contract.
- Requirements of the TDS, CCTV Camera, VTMS, and VTMS Camera equipment to be incorporated into the site plans.
- Provide design input and design information including details, dimensions and layout configurations, and specific technical requirements for elements of the proposed Toll System and Toll-Related ITS.
- Provide input in the development of the project schedule as it relates to the installation and testing of the Toll System and Toll-Related ITS.

A3.03. Schedule Review and Acceptance

The SI shall review the Project Baseline Schedule prepared by the D/B Contractor and provided to the Mobility Authority for its review and acceptance. The SI shall:

- Review and return comments to the Mobility Authority no later than five business days after receiving the Project Baseline Schedule.
- Attend issue resolution meetings as necessary to resolve any outstanding comments.
- Provide written acceptance of the Project Baseline Schedule.
- Coordinate with the D/B Contractor as work progresses and schedule updates and revisions are required.

SI shall consider provisions in the D/B Contract relating to lane closure restrictions and lane rental charges in the SI's schedule determination and coordination with the D/B Contractor.

A3.04. Plan Review and Acceptance

The SI shall review the D/B Contractor's construction documents to ensure that all Toll System Infrastructure is located and configured properly to accommodate the SI's own particular system components required to meet the Mobility Authority's Toll System and Toll-Related ITS Elements performance and accuracy requirements.

ATTACHMENT A

The SI shall have ten business days to review those portions of the 30% and 100% design submittal packages required from the D/B Contractor under the D/B Contract that impact the Toll System and Toll-Related ITS. The SI shall:

- Review and return comments no later than ten business days after receiving a design submittal.
- Attend issue resolution meetings as necessary to resolve any outstanding comments.
- Provide written acceptance of the design submittal package.
- Return the response for a request for information (RFI) no later than four business days after receiving the RFI.

Any SI requested changes to the D/B Contractor's design, after design plans have been accepted and which result in a change order, shall be the SI's responsibility and shall be paid for by the SI. SI shall not be held liable or responsible in cases where sufficient details were not provided in plans, drawings or design documents during the review process. However, SI shall be responsible for notifying the D/B Contractor and the Mobility Authority of any non-sufficient details upon providing written acceptance of the design packages.

ATTACHMENT E

| MoPac Improvement Project - System Integrator - Price Build-up | | | | | | | | | | |
|----------------------------------------------------------------|-----------|--------------|------------------|--------------|-------------------|--------------|------------------|--------------|--------------------------|----------------------|
| Item Description / Position Title | Rate | DSoS - A3.01 | | DSoS - A3.02 | | DSoS - A3.03 | | DSoS - A3.04 | | Ext Price |
| | | Hrs | Price | Hrs | Price | Hrs | Price | Hrs | Price | |
| Software Engineer | \$ 116.00 | 8 | \$ 928 | 32 | \$ 3,712 | 8 | \$ 928 | 12 | \$ 1,392 | \$ 6,960.00 |
| System Engineer | \$ 127.00 | 200 | \$ 25,400 | 460 | \$ 58,420 | 64 | \$ 8,128 | 64 | \$ 8,128 | \$ 100,076.00 |
| Technician | \$ 89.00 | | \$ - | 24 | \$ 2,136 | 12 | \$ 1,068 | 8 | \$ 712 | \$ 3,916.00 |
| Database Administrator | \$ 165.00 | | \$ - | 24 | \$ 3,960 | | \$ - | 8 | \$ 1,320 | \$ 5,280.00 |
| Documentation Clerk | \$ 119.00 | 60 | \$ 7,140 | 80 | \$ 9,520 | | \$ - | 40 | \$ 4,760 | \$ 21,420.00 |
| Testing Engineer | \$ 126.00 | | \$ - | 36 | \$ 4,536 | | \$ - | | \$ - | \$ 4,536.00 |
| Project Manager | \$ 165.00 | 140 | \$ 23,100 | 140 | \$ 23,100 | 80 | \$ 13,200 | 120 | \$ 19,800 | \$ 79,200.00 |
| SUB-TOTAL LABOR | | 408 | \$ 56,568 | 796 | \$ 105,384 | 164 | \$ 23,324 | 252 | \$ 36,112 | \$ 221,388.00 |
| Other Costs | | | | | | | | | | |
| | | | | | | | | | Equipment/Materials | \$ - |
| | | | | | | | | | Sub-Contractors | \$ - |
| | | | | | | | | | Travel Exp's | |
| | | | | | | | | | ODC's | \$ 2,500.00 |
| SUB-TOTAL OTHER COSTS | | | | | | | | | | \$ 2,500.00 |
| | | | | | | | | | G&A / Fee on Other Costs | 15% \$ 375.00 |
| TOTAL PRICE | | | | | | | | | | \$ 224,263.00 |

A3.01. - Coordination, workshops, meetings, and over the shoulder reviews

A3.02. - Toll System and Toll-Related ITS requirements and Site Design

A3.03. - Schedule Review and Acceptance

A3.04. - Plan Review and Acceptance

1) Excludes any and all Taxes (including State/Federal/Local taxes)

2) Excludes Bonding and/or costs for additional Insurance

3) Excludes Subcontractor, Materials/Equipment and Other Direct Costs (If required, these costs/expenses/services will be billed back to CTRMA at Cost + 15%)