

**CAMINO REAL REGIONAL MOBILITY AUTHORITY
BOARD RESOLUTION**

WHEREAS, pursuant to a procurement process completed in 2012, the Camino Real Regional Mobility Authority (CRRMA) selected Telvent USA LLC (Telvent) as the toll systems integration and maintenance provider to the CRRMA, resulting in an Agreement for Toll System Integration and Maintenance (Agreement) between the CRRMA and Telvent; and

WHEREAS, the County of El Paso (County) is currently developing the Tornillo-Guadalupe Port of Entry (TGPOE), which will include a toll collection system consisting of both cash collection and transponder collection components, for which the parties executed an agreement whereby the CRRMA used Telvent to plan, design and install the toll collection system for the TGPOE; and

WHEREAS, the County and CRRMA have subsequently executed another Interlocal Agreement (ILA), whereby the CRRMA will provide certain operations and maintenance services necessary for the successful operation of the TGPOE, through the use of the CRRMA's expertise, available resources and consultants; and

WHEREAS, the CRRMA now desires to execute Change Order No. 02 to Telvent, pursuant to and in accordance with the Agreement, for the provision of certain site specific toll system maintenance and first response facility maintenance at the TGPOE pursuant to the Agreement and the referenced ILA;

NOW, THEREFORE, BE IT RESOLVED BY THE CAMINO REAL REGIONAL MOBILITY AUTHORITY:

THAT the Executive Director is hereby authorized to execute Change Order No. 02 with Telvent USA, LLC as it relates to certain site specific toll system and first response facility maintenance services at the El Paso County's Tornillo-Guadalupe Port of Entry facility, including any additional documents or materials as may be required.

PASSED AND APPROVED THIS 7TH DAY OF MAY, 2015.

**CAMINO REAL
REGIONAL MOBILITY AUTHORITY**

ATTEST:

Joe D. Wardy, Vice Chair

Susan A. Melendez, Secretary

APPROVED AS TO CONTENT:

Raymond L. Telles, Executive Director

CAMINO REAL REGIONAL MOBILITY AUTHORITY

CHANGE ORDER

CHANGE ORDER NO. 2

**TOLL COLLECTION AND MAINTENANCE
El Paso County Tornillo Toll Facility**

THIS CHANGE ORDER is made this ____ day of _____ 2015, pursuant to the terms and conditions of Article 1 of the GENERAL PROVISIONS, Attachment A to the original Contract for Toll System Implementation, dated December 12, 2012 (the Contract) entered into by and between the Camino Real Regional Mobility Authority (“CRRMA”), and TELVENT- USA LLC (“Contractor”).

PART I. The Contractor will perform site-specific toll system maintenance generally described in the Scope of Work attached hereto as **Attachment A**. The Contractor will perform up to standards described in the Performance Requirements attached hereto as **Attachment A**. The Contractor’s duties are further described in the Pricing Form attached hereto as **Form A**.

PART II. The maximum amount payable under this Change Order No. 2 is \$841,800.08. This amount is based generally upon the estimated fees set forth in the fee schedule in **Form A** hereto, which is incorporated herein and made a part of this Change Order.

PART III. Payment to the Contractor for the services established under this Change Order shall be made in accordance with Article 12 of the Contract, and the provisions enumerated within the Interlocal Agreement between the CRRMA and El Paso County, as it relates to the services requested herein.

PART IV. This Change Order shall become effective on the date of execution by the parties hereto and shall be in full force and effect for fifty four (54) months, unless extended by a supplemental Change Order as provided in the Interlocal Agreement between the CRRMA and El Paso County, as it relates to the services requested herein.

PART V. This Change Order No. 2 does not waive any of the parties' responsibilities and obligations provided under the Contract, and except as specifically modified by this Change Order, all such responsibilities and obligations remain in full force and effect.

[SIGNATURES BEGIN ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, this Charge Order No. 2 is executed in duplicate counterparts and hereby accepted and acknowledged below.

TELVENT – USA, LLC. (CONTRACTOR):

Signature

Date

Typed/Printed Name and Title

CAMINO REAL REGIONAL MOBILITY AUTHORITY (CRRMA)

Signature

Date

Typed/Printed Name and Title

LIST OF ATTACHMENTS

Attachment A	Scope of Work and Technical Requirements
Form A	Pricing Form – Maintenance Prices

CAMINO REAL REGIONAL MOBILITY AUTHORITY

CHANGE ORDER No. 2

**Site Specific Toll System Maintenance Scope of Work for
Tornillo and First Response Facility Maintenance**

Attachment A

Scope of Work and Technical Requirements

4 March 2015

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1. General Project Scope of Work

The lanes include three toll collection points (Toll Points) at the El Paso County Tornillo toll facility. During the Work Segment 2, the Contractor will be responsible for maintaining the entire TCS, including all components provided directly by the Contractor and those purchased or leased from third parties.

Maintenance activities shall address predictive, preventive, and emergency requirements for all hardware, software, and interfaces to meet the technical requirements in Contract *Attachment E-Technical Provisions*. Due to the unique nature of the TCS at the Tornillo site, *Attachment F-System Performance Measures, Required Service Levels, and Liquidated Damages* have been modified for the Tornillo site. Tornillo specific modifications for *Attachment F* are listed below in *Table 1 – Modifications to TCS Performance Measures and Liquidated Damages specific for Tornillo site* and *Table 2 – Modifications to Maintenance Required Service Levels and Liquidated Damages for Tornillo site*.

The Contractor is encouraged to proactively plan and perform activities that identify and prevent potential system issues before they occur. As a result, higher priority, shorter response and repair times, and associated damage amounts are associated with reactive, emergency maintenance.

Maintenance issues will be identified, entered, stored, and reported on from within the MOMS. Work orders may be automatically generated by MOMS, in the case of issues detected by automated monitoring, or entered by maintenance technicians in all other circumstances. All events and activities associated with maintenance issues and work orders will be entered, updated, and tracked throughout their existence.

The priority of a given maintenance issue will be assigned as follows:

- Priority 1 – any malfunction or fault that will result in the immediate loss of revenue and/or presents and hazard to the public or maintenance staff.
- Priority 2 – any malfunction or fault that will / may impact operational performance, but will not result in the immediate loss of revenue.
- Priority 3 – any action or event planned or reported that has the potential of degrading system performance, but does not impact operational performance and has no impact on revenue collection.

The Contractor will be required to station maintenance personnel onsite. Consequently, allowed response and repair times have been modified with this CHANGE ORDER and will be strongly enforced in order to minimize downtime and lost revenue.

Spare parts and maintenance equipment shall be housed onsite in good working condition, in support of timely repairs and replacements to the system. The Contractor will be allowed to store spare parts for TGPOE on site.

2. Technical Provisions Maintenance Services for Tornillo TCS

This section replaces Attachment E Technical Provisions Section 9 Maintenance Services in whole.

2.1 Introduction

The Contractor shall commence maintenance services upon NTP2, which shall be issued upon Tolling Commencement. The following maintenance requirements shall apply for the TCS under the Project unless otherwise specified. During the term of Work Segment 2, the Contractor will be responsible for maintaining the entire TCS. This includes, but is not limited to:

- Troubleshooting and repair of hardware and software issues and tracking progress in MOMS.
- Sending and receiving maintenance work order information between MOMS and the PHS.
- Updating the software releases.
- Updating the spare parts inventory in MOMS.
- Conducting annual Performance Audits and completing Performance Audit Reports.

MOMS-related requirements are addressed in *Attachment E Technical Provisions Section 3.9*.

The Contractor shall coordinate and perform all necessary maintenance, repair, renewal and replacement of components through the term of the Agreement.

When issues occur, the urgency of the response shall be dictated by the impact of the issue on revenue collection and safety. Liquidated Damages, proportionate to the impact, shall be assigned when the Contractor fails to meet the established maintenance requirements. Monthly performance of devices, system and staff effort shall be reported in the Maintenance Reports while more thorough evaluations shall be conducted annually and reported in the Performance Audit Reports. The Contractor shall also be responsible for all costs associated with any damage caused by the Contractor during maintenance.

2.2 Maintenance Requirements

The Contractor shall be responsible for all labor and expenses, including shipping, travel, meals, and lodging, associated with providing the required warranty services and shall not be reimbursed for said items. The Contractor shall maintain current and accurate records for all maintenance Work.

The Contractor shall cooperate with all security audits for the life of the Agreement.

The roadside maintenance demarcation point between CRRMA and Contractor responsibilities during Contractor provided maintenance shall be the Toll Equipment Building.

The Contractor shall be responsible for all maintenance Work, including preventive maintenance, of the TCS equipment, including all conductors, cables, and wiring. (TGPOE – removed section related to toll equipment building)

2.2.1 Required Service Levels

Liquidated Damages shall be assessed for Required Service Levels for maintenance activities as described in *Attachment F – System Performance Measures, Required Service Levels, and Liquidated Damages* as modified by Tables 1 and Tables 2 herein.

2.3 Maintenance Management

The Contractor shall provide project management throughout the term of the Agreement, including the maintenance period of Work Segment 2. The Contractor shall prepare and deliver, at a minimum, the maintenance management documents described in the following sections.

2.3.1 Maintenance Plan

The Contractor shall prepare and provide CRRMA with a proposed written standard Maintenance Plan. Upon approval by CRRMA, the Contractor and its employees and agents shall strictly comply with the approved Maintenance Plan. The Maintenance Plan shall include the following:

- Maintenance program overview
- Scope of Work
- Organization – Key Project Personnel
- Maintenance facility
- Preventive maintenance
- Predictive maintenance
- Corrective maintenance
- MOMS
- Communications
- Reports
- Software maintenance
- Spares inventory management
- Disaster recovery and business continuity

The Maintenance Plan shall be submitted to and approved by CRRMA prior to tolling commencement. Any changes to the maintenance approach or specifics requested or approved by CRRMA, in its sole discretion, shall be documented by changes to the Maintenance Plan. This plan shall be updated and re-submitted.

The Contractor shall review and provide any revisions to the preventive maintenance schedule upon delivery of the Annual Performance Audit Report.

The Contractor shall develop a high-level business continuity and disaster recovery plan for inclusion in the Maintenance Plan. The Contractor shall be responsible for all costs of the disaster recovery plan. The disaster recovery plan may include the transfer of this service to a subcontractor as approved in writing by CRRMA.

The business continuity and disaster recovery plan elements shall include:

- Business continuity procedures that shall be implemented to fulfill all requirements of the Work in case of fire, theft, natural disaster, technical difficulty, workforce problems or other disruption of business.
- A disaster recovery plan for recovery of the data for this service shall be maintained in case of fire, theft, natural disaster, or any other technical difficulty.

2.3.2 Operations Manual

The Contractor shall prepare and provide CRRMA with a proposed written standard Operations Manual that details all procedures necessary for administration and operations of the TCS (e.g., running reports, working with user interfaces, etc.). This document shall provide complete and detailed instructions for the operations necessary to administer the TCS including, but not limited to, the following:

- Running reports
- Working with the user interface
- Navigation of MOMS
- System error message definitions
- System troubleshooting techniques
- Location and availability of support services for all major components
- Security operations
- System tuning and adjustments
- System configurations

This manual shall be prepared for CRRMA personnel assigned to the operations oversight of the TCS and shall include a general description, the theory of operation, and all instructions necessary for its operation.

The Operations Manual shall be submitted to and approved by CRRMA prior to tolling commencement. Any changes to operations practices or procedures

requested and/or approved by CRRMA, in its sole discretion, shall be documented by changes to the Operations Manual.

2.3.3 Monthly Maintenance Reports

Commencing at the end of the first full month after the Tolling Commencement Milestone, the Contractor shall submit a Monthly Maintenance Report (MMR) each month for CRRMA's review. MMRs shall include, but not be limited to the following data:

- Progress for the current period (previous month) for all maintenance activities
- Mean Time To Respond And Repair (MTTRR) calculations, including exceptions and justifications
- Monthly Performance Measures and any ad hoc verifications performed that month
- Work Orders, including the assigned technicians and associated repair times
- Preventive and predictive maintenance activities performed that month
- Lane closure information
- Work plan for the following month (scheduled preventive or predictive maintenance activities)
- Trend reporting
- Root cause analysis of failures

CRRMA reserves the right to review the maintenance records and database files for compliance with TCS performance requirements.

2.3.4 Annual Performance Audit

The Contractor shall conduct a Performance Audit of the TCS annually following each anniversary date of System Acceptance, or on a date mutually acceptable to CRRMA and Contractor. The Contractor shall notify CRRMA in writing at least seven (7) Days prior to commencing Performance Audit activities. The intent of the Performance Audit is to validate that the System has not degraded over time and still meets the required performance measures.

The Performance Audit shall be conducted on the installed production TCS under live operational conditions, including but not limited to actual traffic, maintenance calls, and system interfaces.

The Contractor shall provide the required support personnel and any necessary equipment.

The Performance Audit shall be conducted for no less than thirty (30) consecutive Days in accordance with the final Master Test Plan and final Performance Audit Procedures.

CRRMA will be allowed to witness the audit, and the Contractor shall have the responsibility to perform the audit.

2.3.4.1 Performance Audit Procedures

The Contractor shall prepare detailed Performance Audit Procedures for capturing and analyzing the data related to each applicable performance measure. Audits shall not begin until the final Procedures have been reviewed and approved. The Contractor shall allow sufficient time for CRRMA to review the documents in detail prior to the event.

The Performance Audit Procedures shall:

- Be based on CRRMA approved Operational Detailed Test Procedures.
- Include steps that cover set-up, data collection, data analysis, and documentation of expected and actual results.
- Identify the responsible party for each procedural step.
- Identify the test vehicles to be mixed with real traffic, and the anticipated results to be obtained from the tests.
- Clarify the calculation methods that will be used to evaluate the performance metrics included in the Performance Audit Report.
- Define the operational data to be reviewed and the analysis that will be conducted on that data for presentation in the Performance Audit Report.

2.3.4.2 Performance Audit Report

The Performance Audit Report shall include a summary of the audit activities and general conclusions of the analyzed audit results. A detailed description of the audit activities and results including any discrepancies and corrective action taken shall be included as an attachment.

Once CRRMA approves the annual Performance Audit Report, the Contractor shall include a request for payment in the amount set forth in the Agreement for the Performance Audit with the next monthly maintenance Draw Request submittal.

The Performance Audit Report shall include an annual calculation for all Performance Measures shown in *Attachment F – System Performance Measures, Required Service Levels, and Liquidated Damages*.

2.4 Maintenance Oversight Training

The Contractor shall provide relevant information, procedures, and instructions to CRRMA personnel and their agents on the proper maintenance of the TCS to support ongoing CRRMA oversight and management of the TCS.

Training shall consist of both classroom training and field training.

CRRMA and the Contractor shall coordinate the method, duration, time, and location of the training. Maintenance oversight training shall be completed prior to Tolling Commencement for each System.

Training shall be conducted by engineers or technicians knowledgeable in the maintenance of the equipment.

The Contractor shall be responsible to provide training offered by integrators and original equipment manufacturers for specific system components, where available, and required to properly maintain and operate such equipment.

All costs associated with travel for the trainer shall be the responsibility of the Contractor.

2.4.1 Classroom Training

The Contractor shall submit a draft of the classroom training agenda to CRRMA for review along with the draft Operations Manual. The Contractor shall submit a final classroom training agenda to CRRMA for approval along with the final Operations Manual. The Contractor shall provide classroom training in a CRRMA-provided facility for up to 10 persons including each of the following categories:

- Collectors
- Collector Supervisors
- Cashiers/Counting room Personnel
- Facility Manager
- System Administration Personnel
- Office Engineering Personnel
- Toll Program Oversight Personnel

Classroom training shall address, at a minimum, usage and maintenance of the following:

- Lane vehicle detection/classification
- Manual classification override
- Front Panel Touch Screen and other Toll Collector interfaces
- Tour Segments
- Cashier Controls

- Toll rate sign system control
- Digital Video Audit System (DVAS)
- System interfaces
- Monitoring and troubleshooting techniques
- Security management
- MOMS administration
- System reporting operation

Classroom training shall be completed no later than 30 Days prior to Tolling Commencement and no earlier than when the final Operations Manual has been approved by the CRRMA.

In addition to classroom training, training for field personnel shall consist of printed and electronic materials accompanied by verbal instructions and hands-on training or job shadowing with the applicable component and operating environment for the TCS.

All user accounts shall be established before the training program begins although a guest account may be used for training purposes. All training materials shall be provided by the Contractor (i.e., manuals, media, source documents, white papers, etc.) and shall be submitted to CRRMA 30 Days prior to the date training is scheduled to take place.

The Contractor shall grant CRRMA permission to reproduce the training materials as needed.

The training shall incorporate a final production version (or up to date test environment) of all user interfaces and TCS components.

The Contractor shall supply four training terminals with simulation software to simulate real conditions.

Simulated or actual data shall be populated into the TCS so that users may experience all aspects of System operation including, but not limited to, live or simulated Transaction monitoring, image monitoring, MOMS monitoring and notification, performance measure calculations, and reporting functions.

The Contractor shall provide one refresher retraining, if requested by CRRMA, within 60 Days following the Tolling Commencement Milestone, including a minimum of two hours of classroom training for up to 10 persons of System Administration and Office Engineering Personnel and a minimum of four hours of classroom training for up to 6 persons of Toll Program Oversight and Field Maintenance Personnel in a CRRMA provided facility.

The Contractor shall provide a draft agenda including the topics and skills to be refreshed as well as all training materials 30 Days before refresher retraining commences.

2.5 Maintenance Oversight Training

2.5.1 Warranty

Warranties shall also apply to all Work re-done, repaired, corrected, or replaced by the Contractor in the performance of its obligation to maintain the TCS throughout the maintenance period.

The warranties as to each such re-done, repaired, corrected, or replaced element of the Work during the maintenance term shall remain in effect until one year after acceptance by CRRMA of such element of the Work.

2.5.2 Spare Parts Procurement & Inventory

The Contractor shall have purchased and have on the site (in the agreed upon spare parts storage area) the requisite inventory of spare parts (30) Days prior to the expected Tolling Commencement date.

CRRMA will have the right to inspect and inventory the spares and consumables during normal business hours. The spares inventory shall not be subject to any risk of being confiscated, claimed, attached, or withheld by a landlord, creditor, or similar risk. This cooperation includes, but is not limited to, affixing appropriate labeling to all property, thereby identifying it as the property of CRRMA, with a CRRMA-specific part or control number.

The Contractor shall provide spare parts inventory control functionality as part of MOMS. Refer to *Attachment E Technical Provisions Section 3.9* for related requirements.

2.6 Failures

2.6.1 Chargeable Failures

Chargeable failures to the Contractor by CRRMA include any failures that are not specifically identified as non-chargeable failures, including but not limited to:

- A failure that prevents the component from performing its designated function, when used and operated under its intended operational and environmental conditions.
- A failure that poses a threat to the safety of the TCS components, customers, or others.
- An occurrence where data is not successfully transmitted between the TCS and MOMS, but shall not cause double charging of a single failure (e.g., if the lane is not functioning and does not transmit data to PHS and MOMS, either the lane would be charged or the System would be charged for the failure, but not both).
- A failure of components that allow revenue loss to occur on the TCS, but is not already accounted for as a separate performance failure.

- Software anomalies and bugs that degrade the performance of the system below the characteristics defined in *Attachment F – System Performance Measures, Required Service Levels, and Liquidated Damages*.
- Shutdown or unavailability of the TCS unless specifically directed by CRRMA.
- Failure to properly register or report a Transaction.
- Failure to electronically send or receive a Transaction record.
- Failure to post the correct toll rate or message to toll rate sign.
- Failure to generate the reports required to reconcile and audit the System.

2.6.2 Non-Chargeable Failures

Non-chargeable failures shall include those caused by:

- Force Majeure, as defined in the Agreement.
- Failure of a test facility or test instrumentation.
- System component failures caused by externally applied stress conditions outside of the requirements of Work Segment 2.
- System component failures caused by environmental or operating conditions outside of the requirements of the Agreement.
- CRRMA approved adjustments as allowed in the test procedure or Maintenance Plan, as applicable.
- Failure of CRRMA-provided equipment or communication networks, not including power.

2.6.3 Replacement of Failed Equipment

The monthly report shall identify all failed equipment. If the same equipment is identified as having failed two or more times, that equipment shall be replaced with a new piece of equipment at the Contractor's expense.

All electronic equipment to be replaced under these rules shall be replaced, tested, and redeployed before the Contractor provided maintenance period ends.

All equipment installed or spares shall be operational at the end of the term of Agreement.

2.7 Notifications

Maintenance notifications may be provided to the Contractor through various means. The start of the maintenance response time, for purposes of measuring the Contractor's response time, shall be as described in the sections below.

2.7.1 Verbal Notification

CRRMA's first conversation with, voicemail to, or electronic page of the Contractor's answering/routing service shall constitute the start of the response time.

The Contractor shall document verbal notification in the Work Order.

2.7.2 Written Notification

Written notification may be emailed to the Contractor twenty-four (24) hours a day, seven (7) Days a week. The time stamp in the sent email from CRRMA shall constitute the start of the response time.

2.7.3 Automatic Notification

Automatic alarm and alert messages shall be sent out by MOMS, notifying the recipient responsible for response to respond to the failure. The time stamp of the notification within MOMS shall constitute the start of the response time.

2.8 Maintenance Event Priority Levels

2.8.1 Priority 1 Maintenance Events

A Priority 1 Maintenance Event is defined as any malfunction or fault that will result in the immediate loss of revenue and/or presents and hazard to the public or maintenance staff.

2.8.2 Priority 2 Maintenance Events

A Priority 2 Maintenance Event is defined as any malfunction or fault that will / may impact operational performance, but will not result in the immediate loss of revenue.

2.8.3 Priority 3 Maintenance Events

A Priority 3 Maintenance Event is defined as any action or event planned or reported that has the potential of degrading system performance, but does not impact operational performance and has no impact on revenue collection.

2.9 Response & Repair

The Contractor shall provide all tools and equipment required to provide maintenance and repairs to the TCS.

The Contractor shall provide all lane closures in accordance with applicable requirements of this Agreement during Work Segment 2.

Lane closures may be performed during normal operating hours of the facility with prior written approval from the CRRMA.

The Contractor shall coordinate and perform all necessary renewal and replacement of components through the term of the Agreement. The Contractor shall provide low level passwords to CRRMA to allow system access and monitoring.

The corresponding response time and repair shall not exceed the mean time, per month, as reflected in *Attachment F – System Performance Measures, Required Service Levels, and Liquidated Damages* as modified herein.

The Contractor shall record all response times and repair times for every maintenance event via MOMS and provide full reports of response and repair times to CRRMA within the Monthly Maintenance Report (MMR). CRRMA may spot check or audit the reported response and repair times.

2.9.1 Response Time

The response time measurement shall end when the Contractor arrives at the site where the maintenance event occurred, remotely begins addressing the failure, or implements a temporary solution.

For maintenance events of CRRMA provided toll rate sign infrastructure, the response time shall end when the Contractor begins review and validation of the maintenance event.

In the event a temporary solution is implemented and additional Work is required to wholly correct the issue, a new Work Order shall be created and a new Priority Level set.

A Work Order opened following a temporary solution may stay open no longer than thirty (30) Days from the issue of the original Work Order.

2.9.2 Repair Time

Repair time measurement shall start after the technician remotely begins troubleshooting the failure or the Contractor arrives at the site where the maintenance event occurred, whichever happens first. Repair time shall include any required traffic control activities.

For maintenance events of CRRMA-provided VTRS infrastructure, the repair time shall end when the Contractor has validated the event, including the Priority Level, and assigned the Work Order to CRRMA.

Repair time measurement shall end when corrections have been made and the TCS, and roadway in the event of corresponding traffic control activities, has been restored to a fully operating condition. This includes both permanent and temporary solutions.

3. Facility Maintenance Services

This Section outlines the facility maintenance services that the Contractor agrees to perform with Contractor's personnel as a form of first response facility maintenance services as requested from time to time by the CRRMA.

Typical services under this Section may include but will not be limited to:

- Changing air filters on HVAC equipment (building and booth)
- Changing light bulbs at Toll Facility buildings and booths
- Changing thermostat and fire alarm batteries
- Confirming fire extinguisher inspection tags are current
- Trouble shooting/diagnosing toll rate signage
- Power cycling of toll rate signage
- Other maintenance tasks as directed by the CRRMA

Services shall be provided during normal business hours under the Agreement. Typically, CRRMA will supply or cause to be supplied materials needed to perform requested maintenance services (light bulbs, air filters, batteries etc...). In cases where Contractor is directed by CRRMA to supply required materials, compensation for material cost shall be governed by terms of the Agreement.

Table 1: TCS Performance Measures and Liquidated Damages Tornillo site

(This Table replaces Attachment F-Table 1 in whole)

ID	Attachment "E" Section / Requirement	Title and Functional area	Performance Measure	Reporting Frequency – Documentation	Minimum Quantity	Measurement Method	Damage Calculation
1	Section 3 REQ-3.2.7	Vehicle Detection (AVD)	The vehicle detection system shall detect 99.96 percent of vehicles passing through the Toll Point.	Random Sample	Selected period of at least one (1) hour per location.	Random Sample: Contractor shall supply transaction data for Random sample selected period via PHS. CRRMA will compare to manual traffic count data. An agreed upon traffic count of vehicles between SE and CRRMA	Average Monthly Transactions for the month of the selected period x percent below Performance Measure x Average daily toll rate or \$500 for every .1 percent below requirement whichever is higher Monthly maintenance payments may be held until corrected.
2	Section 3 REQ-3.3.2	Vehicle Identification (AVI)	The AVI system shall correctly detect and read 99.96 percent of all properly installed Transponders on all detected vehicles at speeds from 0 mph up to and including 50 mph	Random Sample	Selected period of at least one (1) hour per location.	Random Sample: Contractor shall supply transaction data for Random selected period via PHS. CRRMA will compare to manual traffic count data. An agreed upon traffic count of vehicles between SE and CRRMA	Average Monthly AVI Transactions for the month of the selected period x percent below Performance Measure x(\$1.50 + average daily toll rate) or \$500 for every .1 percent below requirement whichever is higher Monthly maintenance payments may be held until corrected. CRRMA, at its sole discretion, may reduce damages using a daily or hourly proration based on sufficient system report data.
3	Section 3 REQ-3.4.1 REQ-3.4.3	Image Capture (DVAS)	The DVAS system shall capture one rear human readable license plate image for 99.8 percent of all detected vehicles traveling at speeds from 0 mph up to and including 50 mph.	Random Sample	Selected period of at least one (1) hour per location.	Random Sample: Contractor shall supply transaction data for random sample selected period via PHS. Use BOS reporting tools to check image review and code-off results.	Average Monthly Transactions for the month of the selected period x percent below Performance Measure x Average daily toll rate or \$500 for every .1 percent below requirement whichever is higher Monthly maintenance payments may be held until corrected.
4	Section 3 REQ-3.5.11 REQ-3.5.12 REQ-3.5.13	Transaction Creation	The TCS shall correctly correlate all Transaction data related to each vehicle into a single Transaction for that vehicle for 100 percent of all detected vehicles that pass through the Toll Point (including any and all available data for vehicle detection, AVD, AVI, LPIC, and the Toll for that Toll Point.)	Random Sample	Selected period of at least one (1) hour per location.	Random Sample: Contractor shall supply transaction data for random sample selected period via PHS. CRRMA will compare to manual traffic count data. An agreed upon traffic count of vehicles between SE and CRRMA. Use BOS reporting tools to check image review and code-off results.	Average Monthly Transactions for the month of the selected period. x percent below Performance Measure x (\$2.00+ average daily toll rate) or \$500 for every .1 percent below requirement whichever is higher Monthly maintenance payments may be held until corrected.
5	Section 3 REQ-3.6.13	Rate Posting	When a VTRS is available, the TCS shall post and maintain the correct toll rate 99.99 percent of the time.	Monthly - MMR	Each occurrence of posting failure.	Random Sample: Contractor shall provide posting error reports through the PHS.	Percent below Performance Measure x Average daily toll rate x 50% Monthly maintenance payments may be held until corrected. CRRMA, at its sole discretion, may reduce damages using a daily or hourly proration based on sufficient system report data.
6	Section 3, Requirements REQ-3.1.4 REQ-3.9.7.1 REQ-3.9.7.2 REQ-3.9.7.3 REQ-3.9.7.4 REQ-3.9.7.5	System Availability	The PHS shall be available 99.5 percent of each month. Each deployed lane / Toll Point shall be available 99.5 percent of each month.	Monthly – MMR	One (1) month of component failure data from MOMS.	Monthly: Using MOMS data, identify all downtime periods, then divide the number of available hours by the total number of hours in the month.	\$500 for every .1 percent below requirement Monthly maintenance payments may be held until corrected.

Table 2: Maintenance Required Service Levels and Liquidated Damages for Tornillo site

(This Table replaces Attachment F-Table 2 in whole)

ID	Attachment "E" Section / Requirement	Title and Functional area	Required Service Level	Reporting Frequency – Documentation	Minimum Quantity	Measurement Method	Damage Calculation
7	Section 9.2.1 Section 9.9	Mean Time to Respond and Repair	Priority 1 – Contractor shall respond within 2 hours and repair within 4 hours	Monthly – MMR	Monthly: A full month of MOMS work order data.	Monthly: Use MOMS data, for each Priority Level where the allowable mean response or repair time is not met. The number of maintenance events is multiplied by the quantity of hours exceeding the allowable mean response or repair time. The response and repair times will be held during tolling operational hour between 6am to 10pm. All tickets received during non-tolling hours will be described within the monthly MMR.	\$500 per occurrence plus \$250 per hour each hour over required repair time. Additionally lost revenue will be calculated as follows: Average Monthly Transactions - Total Monthly Transactions x Average daily toll rate
			Priority 2 – Contractor shall respond within 4 hours and repair within 8 hours				\$250 per occurrence plus \$100 per hour each hour over required repair time
			Priority 3 – Contractor shall respond within 12 hours and repair within 14 days or agreed upon schedule between SE and CRRMA.				\$100 per occurrence plus \$50 per hour each hour over required repair time
8	Section 3.12.22	Reports and Record Keeping	Contractor shall submit all required reports and records according to agreed-upon dates.	Monthly – Various	n/a	Monthly: Compare to negotiated schedule dates and ongoing reporting frequencies	\$50 per late report / recordkeeping incident
9	Section 3 REQ-3.9.5 .1 REQ-3.9.5 .2 REQ-3.9.5 .3 Section 9.5.2	Spare Parts Availability	Contractor shall maintain and actively manage required spare parts at negotiated levels and in conditions necessary to ensure their ability respond and repair issues within requirements.	Monthly – MMR	Monthly: Monthly usage and end of month spare parts inventory data from MOMS.	Monthly: Compare MOMS data to negotiated spare parts levels	\$500 per month per occurrence or anticipated revenue associated whichever is greater
10	Section 3 REQ-3.9.4.2 Section 9.2	Preventive Maintenance	Contractor shall perform preventive maintenance according to the CRRMA-approved schedule	Monthly – MMR	Monthly: Preventive maintenance activity data from MOMS.	Monthly: Compare MOMS data to negotiated preventive maintenance schedule.	\$50 per occurrence per preventative maintenance item
11	Section 10	Lane Closure Notification for Priority 2 and Priority 3	Advanced lane closure notice shall be provided by the Contractor within 24 hours of the event.	Monthly – MMR	n/a	Monthly: Compare MOMS data to time lane closure notification was received for each Priority 2 and Priority 3 maintenance event. For each lane closure notification that exceeds the 24 hour time period required for notification, multiply the number of hours in excess of 24 hours by the Damage/hour specified for the event.	
			Priority 2				\$100 per hour each hour over 24 hours
			Priority 3				\$50 per hour each hour over 24 hours

CAMINO REAL REGIONAL MOBILITY AUTHORITY

CHANGE ORDER No. 2

**Site Specific Toll System Maintenance for Tornillo and First
Response Facility Maintenance**

Form A

ITEM / LINE	DESCRIPTION	UNIT	QTY	UNIT PRICE	PER-MONTH PRICE	MONTHS	TOTAL	
A	1	TGPOE Toll System Maintenance						
	2	Option 2 Manual Lane Maintenance ^{1,2}	Each	3	\$5,072.84	\$15,218.52	54	\$821,800.08
	3	Reimbursable Materials/Equipment	N/A	N/A	N/A	N/A	N/A	\$20,000.00

NOTES:

1. Includes General Plaza Facility Maintenance. Excludes any 3rd-party Subcontractor Support/Services, Materials/Equipment and Other Direct Costs that may be required for Plaza Facilities Maintenance. If required, these costs/expenses/services will be billed in accordance with the Agreement.
2. Excludes gates. If gate replacement is required, gate replacement/repair costs will be billed in accordance with the Agreement.