GREATER NEW ORLEANS EXPRESSWAY COMMISSION

3939 N Causeway Blvd #400, Metairie, LA 70002
(504) 835-3118
www.thecauseway.us

REQUEST FOR PROPOSALS

FOR TOLL SYSTEM REPLACEMENT

FOR

THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION

R.F.P. No. 2025-001

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PUBLIC NOTICE
FOR
TOLL SYSTEM REPLACEMENT

To be published one time
Legal – October 8, 2025

Publication
Jefferson, Louisiana

PUBLIC NOTICE
FOR
TOLL SYSTEM REPLACEMENT

The Greater New Orleans Expressway Commission (hereinafter referred to as the "GNOEC") is seeking to obtain Proposals from qualified firms to provide the services of a Toll Systems Integrator to replace GNOEC's Toll Collection System (TCS) on the Lake Pontchartrain Causeway (Causeway). The replacement will provide GNOEC with updated hardware and software for an Electronic Toll Collection (ETC) system. The replacement will enhance maintainability and reliability and incorporate systems that can be easily updated and expanded for future enhancements. GNOEC's existing network infrastructure shall be used to complete portions of the replacement project if needed.

Responses to this RFP will be evaluated by an Evaluation Committee to establish the firm's qualifications.

Proposals shall be submitted within the guidelines established in the Request for Proposal package. Interested firms shall obtain a hard copy of the official Request for Proposals (RFP) package from the GNOEC at 3939 N. Causeway Blvd, Ste. 400, Metairie, Louisiana 70002 or download from our website www.thecauseway.us. Additionally, the firm selected for this project will be required to execute a contract with the GNOEC. Any questions or problems related to the download of the RFP package should be directed by email to Melissa Phillpott at melissa@gnoec.org.

Respondents must deliver an original and seven copies of the Proposals and an electronic copy on a flash drive in PDF on or before December 19, 2025, 2:00 PM, CST, in a sealed container plainly marked as follows:

Important – Clearly mark outside of envelope, box or package with the following information and format:

Greater New Orleans Expressway Commission
ATTN: Melissa Phillpott
3939 N Causeway Blvd #400
Metairie, LA 70002

Proposal Name: Replace GNOEC Toll Collection System
Proposal No.: 2025-001
Proposal Opening Date: December 19, 2025, 2:00 PM, CST

Proposals will be received at:

Greater New Orleans Expressway Commission
3939 North Causeway Blvd, Suite 400
Metairie, Louisiana 70002
504-835-3118

Proposer is solely responsible for ensuring that its courier service provider makes inside deliveries to our physical location. GNOEC is not responsible for any delays caused by the Proposer's chosen means of proposal delivery. Proposer is solely responsible for the timely delivery of its proposal. Failure to meet the proposal opening date and time shall result in rejection of the proposal. Proposers are permitted to submit only one (1) Proposal in response to this RFP. All material received in response to this RFP shall become the property of the GNOEC and will not be returned to the Vendor.

Proposals that have not been received by the aforementioned date and time will be rejected. Additionally, failure to submit all of the information requested shall be considered non-responsive and may result in the Proposal being rejected.

The GNOEC is an Equal Opportunity Employer. Therefore, all Respondents are encouraged to utilize minority participation to the extent possible through the use of small, disadvantaged, and women-owned businesses as suppliers or sub-contractors.

Respondents, subcontractors, contractors, vendors or others involved with this project shall not contact any elected or appointed official of the GNOEC, GNOEC's employees, contractors or the Selection Committee concerning this solicitation during the selection process period. Questions concerning this RFP shall be submitted via email to Melissa Phillpott no later than October 29, 2025. All inquiries together with responses thereto will be posted by GNOEC at www.thecauseway.us on or before November 12, 2025.

Additionally, the members of the GNOEC request that Respondents submit requested information only. Unless otherwise stated or required by the instructions, all other attachments or embellishments shall be excluded.

The GNOEC will tentatively meet February 11, 2026, to select a firm to provide the services advertised for the GNOEC.

In accordance with the Americans with Disabilities Act, if you need special assistance, please call the GNOEC at 504-835-3118, describing the assistance that is necessary.

The GNOEC reserves the right to reject all of the submittals in response to this Request For Proposals.

GREATER NEW ORLEANS EXPRESSWAY COMMISSION
CARLTON DUFRECHOU
GENERAL MANAGER

Part II

REQUEST FOR PROPOSALS

R.F.P. No. 2025-001

GREATER NEW ORLEANS EXPRESSWAY COMMISSION

PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA

FOR TOLL SYSTEM REPLACEMENT

1.0 Introduction

This Request for Proposals ("RFP") is issued by the Greater New Orleans Expressway Commission (hereinafter referred to as the "GNOEC"). The objective of this RFP is for the Greater New Orleans Expressway Commission (GNOEC or Commission) to obtain the services of a Toll Systems Integrator (hereinafter referred to as the "Consultant" or "Respondent") to replace GNOEC's Toll Collection System (TCS) on the Lake Pontchartrain Causeway (Causeway). The replacement will provide GNOEC with updated hardware and software for an Electronic Toll Collection (ETC) system. The replacement will enhance maintainability and reliability and incorporate systems that can be easily updated and expanded for future enhancements. GNOEC's existing network infrastructure shall be used to complete portions of the replacement project if needed.

Respondent will be responsible for providing all software, equipment, materials and labor necessary to complete the Scope of Work and Technical Requirements in this RFP.

GNOEC reserves the right to modify or discontinue this RFP at any time without any obligation to any Respondent. All costs of preparation of responses shall be borne by Respondents. The GNOEC will not reimburse any expense incurred by any Respondent.

Respondents must deliver an original and seven copies of the Proposals ("responses") and an electronic copy on a flash drive in PDF on or before December 19, 2025 2:00 PM, CST.in a sealed container plainly marked as follows:

Important – Clearly mark outside of envelope, box or package with the following information and format:

Greater New Orleans Expressway Commission
ATTN: Melissa Phillpott
3939 N Causeway Blvd #400
Metairie, LA 70002

Proposal Name: Replace GNOEC Toll Collection System
Proposal No.: 2025-001
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Proposals will be received at:

Greater New Orleans Expressway Commission
3939 North Causeway Blvd, Suite 400
Metairie, Louisiana 70002
504-835-3118

Proposer is solely responsible for ensuring that its courier service provider makes inside deliveries to our physical location. GNOEC is not responsible for any delays caused by the Proposer's chosen means of proposal delivery. Proposer is solely responsible for the timely delivery of its proposal. Failure to meet the proposal opening date and time shall result in rejection of the proposal. Proposers are permitted to submit only one (1) Proposal in response to this RFP.

All material received in response to this RFP shall become the property of the GNOEC and will not be returned to the Vendor.

RESPONSES RECEIVED AFTER THE DEADLINE WILL NOT BE CONSIDERED RESPONSIVE AND WILL NOT BE REVIEWED.

2.0 Background

The GNOEC manages the Lake Pontchartrain Causeway Bridge, which connects the north and south shores of Lake Pontchartrain. The existing facilities on the Lake Pontchartrain Causeway consist of a single toll plaza located in Mandeville, La. The plaza consists of an administration building, a network operations center, Causeway Police headquarters and the North shore Tag Store. The administration building currently houses the Central Processing servers and network switch infrastructure. Additional GNOEC servers and administrative offices are located in Metairie and are connected to the North Shore through a fiber optic network.

The plaza has five (5) toll lanes which are covered by a single canopy. Downstream of the plaza, vehicles merge into two southbound lanes of the bridge. Traffic through the plaza flows from north to south at low speeds with stopping conditions in lanes where cash/credit tolls are collected. There are no additional toll collection points as vehicles traverse the 24-mile span.

Each toll lane has the same basic footprint and configuration which includes an island and a booth. The lanes at the plaza support both staffed and Tag Only modes of operation, capable of shifting between modes depending on operational needs. All lanes include automated vehicle classification (AVC) systems that determine a vehicle's class based on its axle count and height. The height used in the classification scheme is under or over 7 feet. Traffic is channeled through an 80' long lane outfitted with a treadle, vehicle separation and a tag reader near the entry. A toll booth, patron display, signal lights and an exit loop are positioned near the end of the channel.

Staffed lanes include manual operations to collect cash and credit card payments, make change and manually process non-revenue transactions. Staffed lanes process a mix of

vehicles with and without tags. The lanes are equipped with handheld credit card readers, but are not fully integrated with the collector terminal. Toll collectors are also able to process funeral or military convoys.

Vehicles that have insufficient funds at the toll lanes are asked to exit the plaza via a turnaround lane where they can obtain the proper funds for the toll and return to the entrance of the plaza. A stand-alone ATM (not integrated with either the toll system, nor back-office) is located in the lobby of the North Toll Plaza (NTP) building for patron cash withdrawals.

On occasion, weather conditions may trigger bridge police escorts of vehicles across the bridge. When this protocol is activated, traffic flow through the plaza is interrupted as vehicles are being staged in groups further down the bridge. Toll collection operations remain active even during the traffic interruption.

All lanes are equipped to read the standard 6C tags issued by the customer service center. In addition, the lanes are capable of processing the 6C tags issued by the Louisiana Department of Transportation (LaDOTD) that are used at LaDOTD facilities across the state. GNOEC currently utilizes the Sirit 6204 with only the ISOC protocol enabled. At present, GNOEC does not utilize Sego or TDM tag protocols. GNOEC does not participate in any local, or regional interoperability hub.

Each lane also has license plate image capture cameras to assist in manual toll enforcement operations. These cameras are located on the exit side of the booth to capture images as the vehicle traverses the exit loop when a violation is detected. In addition, each lane has a CCTV camera that records the lanes on a 24 x 7 basis. This is used by GNOEC departments to review traffic traversing through the lanes.

A covered walkway connects the canopy and the administrative building. The toll plaza operates 24 hours a day, 7 days a week for toll collection. Tolls are collected on the South bound span only. GNOEC staff performs all toll operations and all lane hardware maintenance.

GNOEC processes approximately six (6) million toll transactions per year. The average daily transaction level, excluding weekends and holidays, is approximately 20,000 vehicles per day. In-state vehicles account for the majority of total toll revenues. On peak travel days, GNOEC processes approximately 23,000 transactions.

The GNOEC seeks to retain a qualified firm to replace GNOEC's Toll Collection System (TCS) on the Lake Pontchartrain Causeway (Causeway). The replacement will provide GNOEC with updated hardware and software for an Electronic Toll Collection (ETC) system. The replacement will enhance maintainability and reliability and incorporate systems that can be easily updated and expanded for future enhancements. GNOEC's existing network infrastructure shall be used to complete portions of the replacement project if needed, as more fully described in this RFP.

Responses to this RFP will be evaluated by an Evaluation Committee to establish the firms qualifications based on the criterion set forth herein.

3.0 Anticipated Schedule

Activity	Description	Date
Issuance of RFP	RFP advertised on GNOEC's website and other publications	October 8, 2025
RFP Inquiry Deadline	Respondents submit questions through GNOEC's designated email address	October 29, 2025
GNOEC's Deadline to Respond to Inquiries	GNOEC posts all inquiries and responses on GNOEC's website	November 12, 2025
Responses Due	Respondents submit Proposals	December 19, 2025
Evaluation of Proposals	Evaluation Committee Reviews Proposals	January 14, 2026
Interviews	If necessary to make a selection	January 20 - 30, 2026
Commission Selects	Contract Negotiation Begins	February 11, 2026
Contract Execution	Contract Begins	After February 11, 2026

4.0 Questions and Communications

Respondents SHALL NOT initiate contact or communication with any elected or appointed official of the GNOEC, GNOEC's employees, contractors or the Evaluation Committee regarding this RFP until after the award of contract(s) or until cancellation of this RFP.

Questions concerning this RFP shall be submitted via email to Melissa Phillpott no later than October 29, 2025. All inquiries together with responses thereto will be posted by GNOEC at www.thecauseway.us on or before November 12, 2025.

5.0 Procurement Process Objectives

- To engage a qualified firm to replace GNOEC's Toll Collection System (TCS) on the Lake Pontchartrain Causeway, as more fully described in this RFP.
- GNOEC specifically reserves the right to evaluate proposals and request additional information to supplement or explain responses and/or proposals.
- GNOEC reserves the right to select the firm which is in the best interest of the GNOEC and to reject all responses and/or proposals, if in the best interest of GNOEC.
- A proposal or response submitted to the GNOEC under this RFP may be rejected if it contains misrepresentations or conceals any material facts, if it does not conform to this RFP, or if it is deemed in the best interest of the GNOEC to reject the response or proposal.
- Issuance of this RFP in no way constitutes a commitment by GNOEC to award a contract.
- All materials submitted in response to this RFP become the property of the GNOEC. Selection or rejection of a proposal does not affect this right.
- Only information which is in the nature of legitimate trade secrets or non-published financial data may be deemed proprietary or confidential. Any material within a proposal

identified as such must be clearly marked in the proposal and shall be handled in accordance with the Louisiana Public Record Act, R.S. 44: 1-44 and applicable rules and regulations. Any proposal marked as confidential or proprietary in its entirety may be rejected without further consideration or recourse.

- GNOEC shall not be responsible for any errors in proposals or responses. GNOEC reserves the right to make corrections or amendments to the RFP due to errors identified in proposals by GNOEC or the Respondent. GNOEC, at its option, has the right to request clarification or additional information from the Respondent. If requested, such information shall be provided within fourteen (14) days of request.
- The State of Louisiana Code of Governmental Ethics ("Ethics Code") places restrictions on awarding contracts to persons employed by any agency of the GNOEC, or any business of which he or his spouse has more than a 25% interest. The Ethics Code also prescribes other restrictions against conflict of interest and establishes guidelines to assure that appropriate ethical standards are followed. Questions regarding potential violation of the Ethics Code, should be directed to the Louisiana Board of Ethics prior to submission of the proposal. Any violation of the Ethics Code shall be grounds for disqualification of proposal or cancellation of contract.
- If Respondent is placed in default by GNOEC for failure to accept the contract after notification of award, for failure to timely deliver, or for otherwise unsatisfactory performance, Respondent may be subject to up to six months suspension from bidding or responding to any request for qualifications or proposals by GNOEC. Respondent shall be ineligible to perform work for the project or any part of the project for which Respondent has been placed in default.

6.0 Evaluation Criteria

Proposals meeting the minimum requirements will be reviewed by the Evaluation Committee.

The Evaluation Committee shall consist of Director of Finance, Director of Operation, IT Coordinator, Electrical Team Leader, Toll Analyst, Toll Supervisor, and Consultants. The Committee will review responses to the RFP and present a list of qualified firms for consideration.

Responses should contain information sufficient to enable the Evaluation Committee to properly evaluate Respondent's qualifications for achieving the project objectives.

The Evaluation Committee will rely on the qualitative information contained and presented in the responses and reference checks in evaluating the proposals to determine the qualifications of the firms.

The Evaluation Committee will use the following criteria in its review and evaluation of the Proposals:

6.1 Scoring

GNOEC will use a scoring scale of 500 points, including a maximum of 150 points awarded based on the Price Proposal and a maximum of 350 points awarded for the Technical Proposal. The maximum points that will be awarded for each category of the Technical Proposal are detailed below:

CATEGORIES	POINTS
TECHNICAL PROPOSAL with the following potential maximum scores for each Technical Proposal category;	**350**
Toll System Design and Technical Approach (50%)	*175*
Ability to Execute and Meet the Project Schedule (20%)	*70*
System Maintenance and Warranty Approach (20%)	*70*
Vendor's and Subcontractor's Qualifications (5%)	*17.5*
Project Organization and Key Staff Qualifications (5%)	*17.5*
PRICE PROPOSAL POTENTIAL MAXIMUM POINTS	**150**
TOTAL POTENTIAL MAXIMUM POINTS AWARDED	**500**

6.2 Rights of the GNOEC in Evaluating Proposals

The GNOEC reserves the right to:

a. Consider any source of information in evaluating Proposals;

b. Omit any planned evaluation step if, in the GNOEC's view, the step is not needed;

c. Conduct the selection and negotiation process in whatever order or manner it deems appropriate, regardless of the sequence described herein;

d. Engage in written or oral discussions or interviews with firms as part of the evaluation or negotiation process, at any stage of the selection process, including prior to final selection or contract execution;

e. Conduct Best and Final Offers with one or more firms;

f. At its sole discretion, reject any and all Proposals at any time.

6.3 Proposal Opening and Evaluation

A Technical Review and Evaluation Committee (Evaluation Committee) will evaluate Technical Proposals and score these Proposals by awarding appropriate points as further detailed herein.

6.4 Proposal Package Opening

The GNOEC will open all received Proposal packages on the due date. The GNOEC will examine each Proposal package to determine completeness of the submission package and if a separately sealed Price Proposal was provided. GNOEC will then read aloud the names of those who responded to the solicitation and state whether a separately sealed Price Proposal was found with their response. Any proposal received without a separately sealed Price Proposal will be immediately disqualified. The GNOEC reserves the right to also reject any proposals that are incomplete per the requirements for the Proposal package contents.

Copies of qualifying Technical Proposals, along with Respondent's Cover Letter and Affidavits, will then be distributed to the Evaluation Committee so that its members may begin studying and discussing the attributes of each. The associated Price Proposals will not be distributed and instead will be secured and left unopened by the GNOEC until all of the Technical Proposal scoring is successfully completed.

6.5 Technical Proposal Evaluation

The Evaluation Committee will review those Technical Proposals distributed to it.

Technical Proposals shall be in accordance with this RFP, including Part III and Appendix A, attached hereto and made part of this RFP.

The Evaluation Committee members will discuss their findings at designated points throughout the Technical Proposal evaluation process. Upon completion of the evaluation process each member of the Evaluation Committee will then score each category of each Vendor's Technical Proposal as described below.

At any time during evaluation of the Technical Proposals, the GNOEC reserves the right to conduct site visits to a Vendor location and/or other location(s) which utilize a Vendor solution.

Technical Proposals will be evaluated based on the criteria outlined below.

6.5.1 Scoring of the Proposed Approach to Scope of Work and Technical Requirements

When evaluating the Vendor's Approach to Scope of Work and Technical Requirements, the evaluation will focus on:

a. Design of the System/solution to meet the specified requirements: including the documentation of the proposed System design and approach to Work;

demonstration of a logical and thorough approach to design and development; and thoroughness in addressing System requirements.

b. Transactional and Financial Tracking, Reporting and Reconciliation: Demonstration of capability to efficiently design, develop, test, and implement a flexible, reliable and auditable System that addresses the GNOEC's tracking, reporting and reconciliation requirements; and further, demonstration that the proposed System will be easy for the GNOEC to understand, operate and modify as necessary to ensure and facilitate ongoing and seamless tracking, reporting and reconciliation of all data related to the System operation.

c. Innovation in the design, integration, and use of equipment. Innovation is defined as providing a robust system that is scalable/expandable to accommodate the addition of new sub-systems; maximizes the ability to interface with external systems.

d. Performance of proposed systems on similar projects; and where applicable, use of components and systems proven in operation on other projects.

e. Evidence of willingness to exceed Project requirements.

f. Ability to work and perform in a multi-solution, multi-vendor, environment such as the GNOEC environment and to cooperate with other vendors in the development and implementation of necessary system interfaces (if applicable).

6.5.2 Scoring of the Proposed Project Schedule and Project Plan

Due to the age and condition of the existing toll collection equipment GNOEC wishes to have the Toll System Replacement installed and operational as soon as practical.

When evaluating the Vendors' Project Schedule and Project Plan the evaluation will focus on:

a. Demonstration of ability to meet or exceed the project schedule.

b. Maximizing safety for the project.

c. Minimize disruptions to the traveling public.

d. Demonstration of an ability to thoughtfully organize the project and coordinate with all required project participants.

e. Demonstrate a logical approach to Project phasing, testing and transition.

f. Demonstrate a thorough understanding an effective approach to Quality Assurance and Quality Control.

6.5.3 Scoring of Vendor's Approach to System Maintenance and Warranty

When evaluating the Vendors' Approach to System Maintenance and Warranty the evaluation will focus on:

a. Demonstration of ability to meet or exceed all Maintenance Services and warranty requirements as specified in the Technical Specification.

b. Demonstration of innovation in the Vendor's approach to Maintenance will be evaluated, where innovation means providing materials, operating efficiencies and equipment that will reduce the long-term operating and maintenance expenses of the System and enhance System performance and equipment component life. The evaluation will consider innovative and thoughtful approaches on how to provide efficient and productive maintenance on the System.

c. Maintenance Coordination – Demonstrated ability and willingness to maintain Vendor's Central Processing System and to support the maintenance services and CSC/VPC operations performed by the GNOEC.

d. Serviceability – Demonstrated serviceability of components and the overall System. Serviceability is defined as the ease with which maintainers can remove, replace and repair components without affecting traffic.

e. Provide a solution that allows the GNOEC and/or the Vendor to effectively and reliably monitor and maintain the System.

6.5.4 Scoring of Corporate Qualification and Demonstrated Experience

When evaluating the Vendors' Corporate Qualifications and Demonstrated Experience the evaluation will focus on:

a. Evidence of experience with projects (including design, implementation, and maintenance) of similar size and nature.

b. Content of the completed reference forms and results of any follow-up on referenced projects.

6.5.5 Scoring of Project Organization and Qualifications of Key Staff

When evaluating the Vendors' Project Organization and Qualifications of Key Staff the evaluation will focus on:

a. Time commitment of key Vendor personnel to this Project; remote availability on short notice when required.

b. Local presence of key Vendor personnel.

c. Demonstrated relevant experience of the project manager, task managers and other key personnel.

d. Evidence of key Vendor personnel in similar roles in example projects.

e. References based on reference forms and subsequent follow-up by the GNOEC.

f. Experience, technical competence and role of Subcontractors.

6.6 Price Proposal Opening

Technical proposals that do not score a minimum of 60% of total score will be removed from further consideration and the corresponding Price Proposal will not be opened and shall be returned unopened to the Vendor.

The GNOEC shall publicly open and read aloud the Price Proposals of all Vendors that obtain a score of 60% of total points or more on their Technical Proposal and associated due diligence and oral interview.

6.7 Calculation of the Price Proposal Score

The Vendor's Price Proposal will be allocated a maximum potential score of 150 points.

The following formula will be used to assign points to the Price Proposals:

Preliminary Score = (Lowest Proposed Price/Vendor's Proposed Price) x 150

For the purpose of use of this formula, the Lowest Proposed Price is defined as the lowest price proposed by a Vendor whose Price Proposal was opened without being disqualified and whose Technical Proposal scored 60% of total score or more.

6.8 Selection, Award, and Contract Approval

Written or oral discussions may be conducted with any or all of the firms if requested by the GNOEC.

The GNOEC reserves the right to select a firm without further discussion of the proposal submitted based on the initial offers received.

The GNOEC further reserves the right to conduct Best and Final Offers (BAFO) with one or more firms determined by the Evaluation Committee to be reasonably susceptible of being selected for award. If conducted, the firms selected to participate will receive written notification of their selection, with a list of specific items to be addressed in the BAFO along with instructions for submittal. The BAFO negotiation may be used to assist the GNOEC in clarifying the scope of work or to obtain the most cost effective pricing available from the firms. The written invitation to participate in a BAFO will not obligate the GNOEC to select a firm as part of this process or to enter into a contract.

After an initial selection is made, the GNOEC may negotiate with a qualified firm concerning the fee and contract requirements. Upon completion of the negotiations, the firm will then be asked

to enter into a contract with the GNOEC. If an agreement cannot be reached with the firm, the GNOEC will move to select another qualified firm. The same process will be repeated with the other qualified firms if no such agreement can be reached. The GNOEC may select firms to interview prior to contract execution. The GNOEC reserves the right to not select a firm as part of this process if an agreement cannot be reached.

The successful firm will be required to execute an agreement similar to the sample contract attached to this RFP as Exhibit E. The successful firm will also be required to enter into a Software License Agreement and Software Escrow Agreement.

The sample contract attached to this RFP is for reference only. The GNOEC reserves the right to modify the sample contract terms.

Selection will be based on determination of which proposal will best meet the needs of the GNOEC and the requirements of this RFP and presents the least impacts to our Commuters.

- The GNOEC may ask additional questions of Firms, or negotiate over the proposals.
- The GNOEC may then award contracts based on the specified criteria.

Written addenda issued prior to opening which modifies the RFP shall become a part of the RFP and shall be incorporated within the contract. Only a written interpretation or correction by addendum shall be binding. Respondents shall not rely upon any interpretation or correction given by any other method.

The GNOEC reserves the right to accept or reject any or all proposals and to request resubmission or additional information. The GNOEC is the sole judge of the proposals and the only entity qualified to determine which proposals best meet the GNOEC's needs. The GNOEC's decision is final.

7.0 Requirements for Responses

- Responses must be bound and printed on 8.5" x 11" paper. An original and seven printed copies and an electronic copy on a flash drive in PDF must be submitted.
- All responses must be typed or written in ink. Any erasures, strikeover and/or changes should be initialed by Respondent.
- All responses must include a separately sealed Price Proposal
- All responses must be signed by an individual with authority to bind Respondent.
- If the Respondent intends to subcontract for remaining portions of the work, the Respondent shall provide a list of all Subcontractors who are retained or expected to perform work as a Subcontractor in connection with Respondent's work for the GNOEC in Exhibit C and shall include specific designations of the tasks to be performed by the Subcontractor. Performance required of the Respondent under the terms of this RFP is also required for each Subcontractor. Unless specifically disclosed in Exhibit C or provided for in the contract with GNOEC, the Respondent shall not contract with any other party for

furnishing any of the work or services herein contracted for without the express written approval of the GNOEC, which approval shall not be unreasonably withheld.

- Subcontractor affidavit as set forth in Exhibit C shall be submitted with all responses. The affidavits as set forth in Exhibits A and B shall be submitted with all responses for Respondent and by any Subcontractor listed in Exhibit C.

If a firm is selected by the GNOEC to perform the work set forth in this RFP, then certificates of insurance showing proof of coverage as set forth in Exhibit D is required within 10 days of selection.

Responses shall be organized in the following manner:

1. Cover Letter

Provide name and address of the firm respondent and contact person with address, telephone number, and email address. Acknowledge receipt of any addenda if applicable. Summarize your understanding of the services requested. Provide a statement indicating your ability to provide timely services and meet the requirements of the proposed schedule. Indicate your acceptance of the requirements of this RFP. In addition to the cover letter, provide a one-page summary of the benefits you believe the GNOEC would receive from selecting your firm.

Provide information on the organization of your firm, including the year it was established, any former names, and a description of the firm, its history and philosophy. Also include the firm's capacity for timely completion of the work, taking into consideration the firm's then current and projected work load and professional and support manpower.

Describe your firm's philosophy and typical interactions with owners throughout the process. The GNOEC will consider the firm's approach to project completion, and assurance of quality of the completed project for the GNOEC.

The cover letter must be signed by the individual respondent or a duly authorized official of the firm. Consortiums, joint ventures, or teams submitting responses must establish that contractual responsibility rests solely with one company or one legal entity. Each submittal should indicate the entity responsible for execution of the agreement on behalf of the proposal team. The firm offer must be good for 180 days.

2. Technical Proposal

3. Affidavits

4. Separately Sealed Price Proposal

8.0 Minimum Requirements

The following are considered minimum requirements and must be met at the time the proposal is submitted. Respondents failing to meet the minimum requirements shall be rejected and Respondent's proposal will not be considered by the Evaluation Committee.

- Separately sealed Price Proposal (see Section 6.4)
- Non solicitation Affidavit (Exhibit A) shall be submitted with the response by Respondent and any Subcontractor, if applicable.
- Attestation of past criminal convictions (Exhibit B) shall be submitted with the response by Respondent and any Subcontractor, if applicable.
- Identification of Subcontractors, if applicable (Exhibit C), shall be submitted with the response.

Evidence of Compliance shall be submitted with the response to the RFP.

Other requirements contained in this RFP will be considered by the Evaluation Committee in evaluating the proposals to determine the qualifications of the firms.

Part III
Toll System Replacement
Scope of Work and Technical Requirements

Contents

1 Scope of Work and Requirements

1.1 Purpose and Objective

The objective of this RFP is for the Greater New Orleans Expressway Commission (GNOEC or Commission) to obtain the services of a Toll Systems Integrator to replace GNOEC's Toll Collection System (TCS) on the Lake Pontchartrain Causeway (Causeway). The replacement will provide GNOEC with updated hardware and software for an Electronic Toll Collection (ETC) system. The replacement will enhance maintainability and reliability and incorporate systems that can be easily updated and expanded for future enhancements. GNOEC's existing network infrastructure shall be used to complete portions of the replacement project if needed.

1.2 General Toll Facility Description

1.2.1 Existing Toll Facility

The existing facilities on the Lake Pontchartrain Causeway consist of a single toll plaza located in Mandeville, La. The plaza consists of an administration building, a network operations center, Causeway Police headquarters and the North shore Tag Store. The administration building currently houses the Central Processing servers and network switch infrastructure. Additional GNOEC servers and administrative offices are located in Metairie and are connected to the North Shore through a fiber optic network.

The plaza has five (5) toll lanes which are covered by a single canopy. Downstream of the plaza, vehicles merge into two southbound lanes of the bridge. Traffic through the plaza flows from north to south at low speeds with stopping conditions in lanes where cash/credit tolls are collected. There are no additional toll collection points as vehicles traverse the 24-mile span.

Each toll lane has the same basic footprint and configuration which includes an island and a booth. The lanes at the plaza support both staffed and Tag Only modes of operation, capable of shifting between modes depending on operational needs. All lanes include automated vehicle classification (AVC) systems that determine a vehicle's class based on its axle count and height. The height used in the classification scheme is under or over 7 feet. Traffic is channeled through an 80' long lane outfitted with a treadle, vehicle separation and a tag reader near the entry. A toll booth, patron display, signal lights and an exit loop are positioned near the end of the channel.

Staffed lanes include manual operations to collect cash and credit card payments, make change and manually process non-revenue transactions. Staffed lanes process a mix of vehicles with and without tags. The lanes are equipped with handheld credit card readers, but are not fully integrated with the collector terminal. Toll collectors are also able to process funeral or military convoys.

Vehicles that have insufficient funds at the toll lanes are asked to exit the plaza via a turnaround lane where they can obtain the proper funds for the toll and return to the entrance of the plaza. A stand-alone ATM (not integrated with either the toll system, nor back-office) is located in the lobby of the North Toll Plaza (NTP) building for patron cash withdrawals.

On occasion, weather conditions may trigger bridge police escorts of vehicles across the bridge. When this protocol is activated, traffic flow through the plaza is interrupted as vehicles are being staged in groups further down the bridge. Toll collection operations remain active even during the traffic interruption.

All lanes are equipped to read the standard 6C tags issued by the customer service center. In addition, the lanes are capable of processing the 6C tags issued by the Louisiana Department of Transportation (LaDOTD) that are used at LaDOTD facilities across the state. GNOEC currently utilizes the Sirit 6204 with only the ISOC protocol enabled. At

present, GNOEC does not utilize Sego or TDM tag protocols. GNOEC does not participate in any local, or regional interoperability hub.

Each lane also has license plate image capture cameras to assist in manual toll enforcement operations. These cameras are located on the exit side of the booth to capture images as the vehicle traverses the exit loop when a violation is detected. In addition, each lane has a CCTV camera that records the lanes on a 24 x 7 basis. This is used by GNOEC departments to review traffic traversing through the lanes.

A covered walkway connects the canopy and the administrative building. The toll plaza operates 24 hours a day, 7 days a week for toll collection. Tolls are collected on the South bound span only. GNOEC staff performs all toll operations and all lane hardware maintenance.

GNOEC processes approximately six (6) million toll transactions per year. The average daily transaction level, excluding weekends and holidays, is approximately 20,000 vehicles per day. In-state vehicles account for the majority of total toll revenues. On peak travel days, GNOEC processes approximately 23,000 transactions.

1.2.2 GNOEC Host and Tag Store Customer Service Center

The existing toll system includes host and customer service systems accessible from any of the three GNOEC administration locations (South Shore VOA building offices, North Shore operations building and North Shore maintenance building). The host system and customer service systems are provided by different vendors. All facilities are connected by a fiber backbone between the three locations.

The host system provides the auditing, reporting and real-time monitoring functions. The collectors use this system to start a segment of duty. Collectors end a shift by entering a final deposit coin and cash count, as well as credit card summary information. The current auditing functions allow for adjustments to collector shifts for shift corrections and reports used to balance and audit the collector shifts.

The host system provides a suite of traffic and revenue reports. Reports provide summarized or detail traffic information using a varied selection of payment types, classification information and time periods. Host reports are also available for collector performance monitoring.

GNOEC operates two (2) Customer Service Centers (CSC). The North Shore CSC is located in the toll plaza while the South Shore CSC is located in Metairie. The CSC back-office application system, which consists of a virtualized server cluster, Storage Area Network (SAN) and network switches, are located at two (2), separate locations within GNOEC's fiber optic network. The CSC back-office application software was delivered and implemented by Transcore in 2010. GNOEC operates the existing CSC with Commission staff. The CSC operation consists of setting up local ETC customer accounts, account management, billing for the discount programs, correspondence and the handling of customer calls. The CSC provides walk-in counter service as well as service by telephone and Internet.

1.3 Project Overview

1.3.1 Toll Collection System

The Toll Collection System (TCS) collectively refers to all toll collection system hardware, software, interfaces, and subsystems that enable Cash, Credit Card and Electronic Toll Collection to be performed by the GNOEC as specified in this section. The TCS includes elements for toll collection to be provided by the Toll System Provider and shall generally include, but not be limited to:

- Design, development, testing, procurement and installation of a complete and fully functioning Toll Collection System, with appropriate infrastructure, that shall include:
    - Attended manual and unattended ETC toll lane equipment that supports manual (Cash, Credit Card and Non-Revenue) and electronic toll collection (ETC) and automatic vehicle classification (AVC) for pre-classification and post-classification.
    - Toll Booth cabinet and equipment enhancements. If installing lane computer equipment in the booth, the existing Toll Booth cabinet located under the booth table is a NEMA Enclosure 24x24x12 Stainless Steel with Lock and Fan installed (Manufacture EXM Part Number 5412 ESSP242412NOIP)
    - Power and data cable and additional conduit installation and termination where necessary.
    - All associated plaza and host hardware and software, as well as software for reporting, reconciliation and other audit functions.
    - Digital Video Auditing System (DVAS)
    - Maintenance Online Management System (MOMS)
    - Optional Violation enforcement system (VES)
    - Optional Violation Processing Center (VPC)
    - Necessary communication equipment. The existing fiber network that exists between the roadside and the computer room may be utilized. The booth and gantry switches are Cisco Industrial Ethernet 2000 series switches (IE-2000-8TC-G-E).
    - Transition from the existing host and plaza systems.
    - Integration with existing customer service center (CSC)
    - Maintenance of the Toll Collection System, after System Acceptance of the completed system, shall be accomplished by GNOEC with the support of the Toll System Provider under the maintenance requirements described herein.

- In general, the Toll Collection System shall provide all of the functions necessary to:
    - Detect, classify, and process all vehicles traveling through the toll plaza in accordance with GNOEC operational policies.
    - Support all manual toll collection and all plaza operations related to revenue collection.
    - Determine fares based on a static toll rate in current and future schedules where schedules roll over automatically when current schedule ends and future begins.
    - Interface with other entities as needed for payment processing, transfer of revenue, and financial reporting.
    - Audit and reconcile transactions and revenue.
    - Generate operational, traffic, audit, financial and performance reports to allow operation and management of the toll system.
    - Be compliant with the appropriate sections of applicable State of Louisiana law and other applicable standards.

1.4 Toll Collection System Requirements

The requirements described in this Scope of Work include the System concepts, operational requirements, technical requirements, design, development and testing requirements, and installation requirements for the design, development, fabrication, programming, integration, testing, installation, implementation and maintenance of the Toll Collection System.

The requirements are being specified on a functional level. It is the intent of these requirements to permit the Toll System Provider (TSP) the flexibility in the design and development of the Toll Collection System to reflect existing products as well as innovation and state-of-the-art technology.

The TSP shall furnish and mobilize all required facilities, equipment, and resources necessary for initiating and concluding the Contract and shall include such portions of the following as are required at the beginning and end of the Project:

- Setting up at the various worksites, storage areas, sanitary and other facilities as required by the Specifications, by local or state law, or by regulation, and the subsequent demobilization and removal from the site of said equipment, appurtenances and the like upon completion of the work.
- All onsite Toll System Provider equipment shall have the appropriate and up to date inspections and safety equipment as required by local, state and federal law.
- Coordinating all lane closure activities and/or traffic control with GNOEC and any other Toll System Provider as may be appropriate.
- Obtaining necessary permits and licenses, and payment of fees as required by local, state and federal law.
- Lighting work area.
- Sampling and testing of materials.
- Providing required insurance and bonds.

The TSP shall be responsible for purchasing and maintaining all equipment required for development and testing of the Toll Collection System. The TSP shall also develop and establish a FAT test site with the capability of testing the manual and manual-automated lane configurations of the Toll Collection System. The GNOEC will allow the fifth lane to be the FAT test site. The GNOEC shall approve the TSP proposed use of the test site before equipment installation commences and shall have full access to the test site for the duration of this project.

The TSP shall design the overall system with considerations for flexibility and scalability. It is critical that the proposed system provides for additional capacity to serve higher volumes of transactions without requiring substantial replacement of the provided system. It is understood that modifications to the proposed system post Project Acceptance may be required, such as software modifications or the increasing of storage capacities. However, the Toll System Provider is required to present a scalable and modular solution to the extent practicable.

The TCS must comply with the requirements in the sections below. The TCS requirements include a unique identifier to ease the traceability of technical requirements for the functionality of the TCS and in the Requirements Traceability Matrix (RTM).

1.4.1 Legal Requirements

The TSP is required to be compliant with the regulations and laws that govern a TCS in State of Louisiana as well as the Terms and Conditions presented in this Contract.

1.4.1.1 FHWA Final Rule on Architecture Standards and Conformity (23 CFR 940 Part 11)

The TCS must adhere to the Systems Engineering for Intelligent Transportation System (ITS), Systems Engineering for Intelligent Transportation Systems or an equivalent established methodology to be approved by the GNOEC. The Toll System Provider shall follow the two-phase, systems engineering process (also known as the "V" process) to maximize the quality of the developed Toll Collection System and to ensure that the deployed system adequately meets the needs and objectives envisaged by the GNOEC and FHWA (in accordance with US DOT Final Rule, Park 940-Intelligent Transportation System Architecture and Standards Section 940.11 Project Implementation). A copy of the Rule is available at Intelligent Transportation System Architecture and Standards - ITS Architecture Implementation - FHWA Operations.

1.4.1.2 FCC License

The AVI system shall comply with all applicable Federal Communications Commission (FCC) regulations. Currently the GNOEC has FCC licenses for the existing lanes and plazas. It is the Toll System Provider's responsibility to verify these licenses and apply for and obtain any new required FCC licenses for all AVI equipment provided under this Scope of Work and Contract on behalf of the GNOEC. The Toll System Provider shall, as part of this effort, identify and accommodate any site conditions that may potentially degrade the performance of the AVI system. Under all circumstances it is the Toll System Provider's responsibility to comply with the AVI performance requirements of this Scope of Work and Contract and no relief in such performance shall be provided.

1.4.1.3 PCI Data Security Standard

Personally Identifiable Information (PII) data must be encrypted or disassociated from any individual prior to transmission through any public data communication infrastructure such as a network or the internet. All systems shall comply with all applicable and then current policies and State of Louisiana law regarding privacy and data security.

All systems provided by the TSP shall be in compliance with latest PCI DSS published standards available at the time of commissioning. The systems herein must provide for GNOEC's classification as a Level 3 merchant.

1.4.2 General System Requirements

The requirements described in this Scope of Work include the System concepts, operational requirements, technical requirements, design, development and testing requirements, and installation requirements for the design, development, fabrication, programming, integration, testing, installation, implementation and maintenance of the TCS.

The requirements are being specified on a functional level. It is the intent of these requirements to permit the TSP the flexibility in the design and development of the TCS to reflect existing products as well as innovation and state-of-the-art technology.

No.	General System Requirements
GS-1	The TSP shall provide equipment and technology that has already been designed, developed, tested, and currently is deployed on another TCS with a similar scope and in a similar or larger revenue operation.
GS-2	The TSP shall coordinate design and installation activities with GNOEC and any other agencies, as applicable, during various stages of the project. Any coordination with other agencies or entities relative to this project shall require notification and copied correspondence with GNOEC.
GS-3	The TSP shall be responsible for purchasing and maintaining all equipment required for development and testing of the Toll Collection System
GS-4	The TSP shall provide a System which provides a future upgrade path throughout the Term of the Contract, including future extensions of these Terms.
GS-5	The TCS shall provide graphical user interface (GUI) based applications that shall accommodate any authorized device connected to the System and application based on access roles and security levels.
GS-6	For any systems accessible by a commercial internet browser, the TSP shall provide secure browser-based system access and navigation for internal users and role-based access for external users using the latest version and the previous version of a web browser approved by the GNOEC.
GS-7	Any original Financial Transaction, Traffic Transaction or Event Transactions entered in the System shall only be modified in the System or deleted as necessary to move Transactions to long term storage in accordance with the archive requirements. Any updates to the data associated with any message shall be traceable to the original records. The TCS shall also identify the user that made the original record and any users that update original records.
GS-8	The TCS shall provide access privileges for different levels of user authorization which shall be fully configurable by a System administrator.
GS-9	The TCS shall display date/time data and query prompts to users in accordance with the local US Central time zone. The TCS shall properly handle daylight saving time changes and leap-years automatically.
GS-10	All TCS subsystems shall be time synchronized to one or more GNOEC-approved time server(s).
GS-11	The TSP shall provide a TCS with a minimum operational lifecycle of 10 years.
GS-12	All components of all equipment shall be modular in nature for maintenance, testing, and replacement purposes. All components shall be designed such that they are easily accessible.
GS-13	If power requirements of installed equipment exceed ratings of the existing GNOEC UPS equipment, the TSP shall provide additional UPS equipment to supply power during outages.

1.4.2.1 Vehicle Classification and Rate Requirements

As vehicles drive through the lanes, they are classified for toll payment by the toll collector on the collector terminal or by the AVC. The vehicle classifications are based on the number of axles and the height of the vehicle.

No.	Vehicle Classification and Rate Requirements
VC-1	The following classifications are currently defined and should be user configurable but not limited to: • 2 axles Under 7 feet • 3 axles Under 7 feet • 4 axles Under 7 feet • 5 axles Under 7 feet • 6 axles Under 7 feet • 7 axles or more Under 7 feet • 2 axles Over 7 feet • 3 axles Over 7 feet • 4 axles Over 7 feet • 5 axles Over 7 feet • 6 axles Over 7 feet • 7 axles or more Over 7 feet
VC-2	For each vehicle, the rate should be user configurable for the following payment types: • Cash • Credit Card • AVI • Non-Revenue
VC-3	The toll rate schedules should be user configurable. Each toll rate schedule should have a start and end date/time. Toll rate schedules should be pre-loaded to the lane controllers and activate upon the start date/time. If the end date/time is reached and there is no further active rate schedule, the existing rate schedule should remain active until an appropriate schedule is loaded to the lane controller.
VC-4	The Non-Revenue payment type is defined by an AVI transponder designated as non-revenue or by the collector indicating a non-revenue transaction and entering the agency and personal identification number (PID) using the MLT.

1.4.3 Roadside Requirements

The following sections include details on the requirements of the physical tolling locations. It also includes sections that include the plaza areas where collector cash in and supervisor functions take place.

1.4.3.1 Lane Controller General Requirements

The Lane Controller consists of the hardware components and software that support collection of tolls in each toll lane. The following are general requirements pertaining to the hardware and software used in the process of collecting tolls.

No.	Lane Controller General Requirements
LC-1	Each Lane shall be equipped with an industrial grade computer hereinafter referred to as the Lane Controller. The Lane Controller hardware shall be configured in a manner such that each physical toll lane can be operated and maintained independent of the other lanes in the system. For example, if a single lane requires manual intervention or is closed for planned or unplanned service, the remaining lanes shall be unaffected.
LC-2	The processor speed and memory shall be sufficient to process vehicles in real time to meet the speed and traffic volumes as specified in these technical requirements. The disks shall be sized to hold 30 days of transaction and event data for each lane.
LC-3	The Lane Controller system shall transmit transaction data to the Host system in a timely manner. The amount of pending transaction data should be kept to a reasonable minimum to mitigate data loss in the event of a system failure.
LC-4	The Lane Controller system shall run independently of the Host system and continue to build Traffic Transactions if communications are disrupted.
LC-5	The Lane Controller system shall automatically resume the upload of any stored transaction data to the Host system following a restoration of communications.
LC-6	The TSP shall provide a TCS that accurately detects, classifies, rates and reports each vehicle traversing the lane. The major function of the Lane Controller system is to accurately detect, classify and identify every vehicle passing through the lane.
LC-7	The Lane Controller system shall generate a Traffic Transaction for each vehicle passing through any Lane.
LC-8	The Lane Controller system shall immediately build the Traffic Transaction with the information available, and shall operate in a degraded mode if some components are not functioning.
LC-9	The Lane Controller system shall have the ability to process multiple transponders for a single vehicle and determine the best transponder to use based on GNOEC rules. TSP shall provide a mechanism to alter the multiple tag assignment rules without requiring modifications to the base Lane Controller software modules.
LC-10	The Lane Controller system may generate additional equipment and status transactions to supplement Traffic Transaction data. Such equipment and status transactions would serve to support lane audit functions and provide additional information related to observed anomalies.
LC-11	The TSP shall use existing toll plaza physical infrastructure and conduits for the TCS to the largest extent possible.
LC-12	Any civil or structural modifications or replacements shall first be sealed by a Professional Engineer licensed in the State of Louisiana, then submitted to GNOEC for approval prior to implementation. All costs associated with the design and construction of these modifications or replacements are solely at the cost of the TSP and shall be included in the TSP Financial Proposal.

1.4.3.2 Lane States and Modes of Operation Requirements

The new TCS shall support the following lane states:

Closed State – In this state, the lane is considered closed to vehicle traffic. The entry lane overhead signal indicates the lane is closed and does not process patron payments or tags. Each lane has a traffic gate that is lowered manually by the collector or plaza supervisor to stop vehicle traffic.

Standby State – When exiting the Closed or Open States, the lane shall transition to the Standby State. The entry lane overhead signal indicates the lane is closed. The TCS should process patron payments or tags if presented. However, the lane is not considered fully open in this state. The traffic gate must be raised manually by the collector or plaza supervisor before the lane can be opened to traffic.

Open State – In this state, the lane is considered open to vehicle traffic. The entry lane overhead signal indicates the lane is open. Payment methods allowed is based on the Mode of Operation described below. The traffic gate has to be raised manually by the collector or plaza supervisor to allow vehicular traffic.

The new TCS shall support the following Modes of Operation: Attended Cash/ETC, Attended ETC Only, Unattended ETC Only, Closed and Maintenance Mode.

Attended Cash/ETC Mode – In Attended Cash/ETC mode the lane is in the Open State; all vehicles are processed either manually by a toll collector or automatically by the AVI system. All vehicles associated with a valid AVI read are processed automatically by the system. In this mode, the entry lane overhead signal indicates the lane is open for Cash, Credit Card or Tag payment types. The toll collector processes vehicles without valid tags as follows:

Determines and verifies or enters the vehicle classification

Receives payment from the patron

Makes change and provides a receipt when requested

Handles exceptions

Attended ETC Only Mode – Attended ETC Only mode is similar to Attended Cash/ETC mode except the collector does not process a payment from the patron and patrons do not stop at the booth. The collector still verifies the vehicle classification and changes the classification if necessary. Exceptions are also handled by the collector. In this mode the lane is in the Open state; the entry lane overhead signal indicates the lane is open for Tag payments only.

Unattended ETC Only Mode – In Unattended ETC Only mode, the lane is opened with no collector. The lane software uses the classification information obtained from the pre-class and post class AVC and processes vehicles with AVI transponders as transactions. Vehicles with no transponder detected are treated as violations. In this mode the lane is in the Open State; the entry lane overhead signal indicates the lane is open for Tag payments only.

When a lane enters one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), it should first enter the Standby State. Once the traffic gate is manually raised, there should be a way to change the lane to the Open State in the desired Operating Mode. The means of confirming the Open State may be via the Collector Terminal in the booth, or from a Plaza Supervisor workstation. Conversely, a means shall be provided to enter the Standby State and return to the previous Operating Mode.

Once the lane is opened in one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), the lane shall support the processing of Special Events traffic. The Special Events

functionality allows the GNOEC to let vehicles go through the toll lanes for free during emergency situations. Tolls will not be collected from any patron while a lane is in this mode. The canopy light and traffic light remain steady green. The PFD remains blank to avoid patrons slowing down. The AVC systems will continue to classify each vehicle and will set the method of payment to be Exempt. Each AVC transaction shall be flagged for Special Event. The AVI will remain active, but no transactions shall be sent to the CSC and all traffic and class of vehicle shall be reportable. The system shall provide a mechanism to independently enable a single lane, or multiple lanes, to begin processing Special Events or Evacuation traffic.

When a lane exits one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), it should enter the Standby State. Once the traffic gate is manually lowered, there should be a way to change the lane to the Closed State and proceed to the Closed Operating Mode. The means of confirming the Closed State may be via the Collector Terminal in the booth, or from a Plaza Supervisor workstation. Conversely, a means shall be provided to exit the Standby State and return to the previous Operating Mode.

Closed Mode – In Closed mode the lane is in the Closed State; lane canopy signage shall indicate the lane is closed. The AVC systems will continue to classify any vehicle that may traverse the lane and will set the method of payment to Closed. The AVI will remain active, but no transactions shall be sent to the CSC and all traffic and class of vehicle shall be reportable.

Maintenance Mode – The Maintenance Mode shall allow the GNOEC to close the lane with full functionality for maintenance operations. Maintenance technicians will be able to run diagnostics, make repairs, and perform other maintenance activities that will create ETC, cash or other transactions but will not be sent to the CSC/VPC or included in traffic count data. In this mode the lane is in the Closed State; the lane canopy signage shall indicate the lane is closed.

No.	Lane Controller Modes of Operation Requirements
MO-1	The TCS shall support three (3) lane states: Closed, Standby, Open.
MO-2	The TCS shall support five (5) different modes of operation: Attended Cash/ETC, Attended ETC Only, Unattended ETC Only, Closed, Maintenance Mode.
MO-3	In Attended Cash/ETC mode, vehicles associated with a valid AVI read are processed automatically by the system.
MO-4	When in Attended Cash/ETC mode, the toll attendant processes vehicles without valid tags as follows: Determine, verify and if necessary, change the vehicle classification from pre-class. Process the payment from the patron, either cash, credit card or non-revenue information. Provide change and a receipt to the patron, if requested. Handle any exceptions.
MO-5	In Attended Cash/ETC mode, entry lane overhead signal indicates the lane is open for Cash, Credit Card and Tag payment types.
MO-6	In Attended ETC Only mode: All vehicles associated with a valid AVI transponder are processed automatically by the system. Vehicles without valid transponders are treated as violations.

No.	Lane Controller Modes of Operation Requirements
	Patrons do not stop at the booth. No change is provided to the patron and no receipts are available. Vehicle classification exceptions are handled by the collector. Entry lane overhead signal indicates the lane is open for Tag payments only.
MO-7	In Unattended ETC Only mode: All vehicles associated with a valid AVI transponder are processed automatically by the system. Vehicles without valid transponders are treated as violations. Patrons do not stop at the booth. Entry lane overhead signal indicates the lane is open for Tag payments only.
MO-8	When a lane enters one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), it should first enter the Standby State: Subsequently, there should be a way to change the lane to the Open State in the desired Operating Mode. Conversely, a means shall be provided to exit the Standby State and return to the previous Operating Mode.
MO-9	Once the lane is opened in one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), the lane shall support the processing of Special Events traffic: The Special Events functionality allows the GNOEC to let vehicles go through the toll lanes for free during emergency situations. Tolls will not be collected from any patron while a lane is in this mode. The canopy light and traffic light remain steady green. The PFD remains blank to avoid patrons slowing down. The AVC systems will continue to classify each vehicle and will set the method of payment to be Exempt. Each AVC transaction shall be flagged for Special Event. The AVI will remain active, but no transactions shall be sent to the CSC and all traffic and class of vehicle shall be reportable. The system shall provide a mechanism to independently enable a single lane, or multiple lanes, to begin processing Special Events or Evacuation traffic.
MO-10	When a lane exits one of the Operating Modes above (Attended Cash/ETC, Attended ETC Only, or Unattended ETC Only), it should first enter the Standby State: Subsequently, there should be a way to change the lane to the Closed State State and proceed to the Closed Operating Mode. Conversely, a means shall be provided to exit the Standby State and return to the previous Operating Mode.
MO-11	In Closed mode:

No.	Lane Controller Modes of Operation Requirements
	All vehicles are processed automatically by the system. Vehicles will be assigned a payment type indicating the lane was closed. The AVI will remain active, but no transactions shall be sent to the CSC. Entry lane overhead signal indicates the lane is closed.
MO-12	In Maintenance mode: Maintenance technicians will be able to run diagnostics, make repairs, and perform other maintenance activities that will create ETC, cash or other transactions. Transactions will not be sent to the CSC/VPC or included in traffic count data Entry lane overhead signal indicates the lane is closed.

1.4.3.3 Lane Controller Vehicle Turnaround Requirements

Bridge patrons sometime enter the toll plaza but cannot provide a payment for the toll or desire to turn around before proceeding on the bridge. A driveway after the plaza building is provided to allow these patrons to exit the roadway and travel north away from the bridge or stop at the plaza to obtain payment. During the Turn-Around process, adjacent lanes in the direction of the plaza building are alerted of a potential vehicle traversing the plaza to access the turn-around driveway.

No.	Lane Controller Vehicle Turnaround Requirements
VT-1	Lane Controller user interface shall provide a means to initiate a vehicle turnaround.
VT-2	When vehicle turnaround initiated, the TCS will notify on the user interface of the adjacent open lanes in the direction of the plaza that turnaround is in process and the attendant should hold up the traffic.
VT-3	When vehicle turnaround initiated, the TCS will notify toll patrons by way of the PFD in the adjacent open lanes in the direction of the plaza that turnaround is in process and traffic should yield.
VT-4	The turnaround notification shall only be activated on Lanes in the Open or Standby states and in any lane mode.
VT-5	The turnaround lane after the plaza building has a gate controlled by a loop. It should be equipped with recording equipment and other sensors necessary to record the turnaround vehicle.
VT-6	The TCS shall close the turnaround event in the lane user interface when the initiating lane cancels the turnaround or the turnaround vehicle is detected at the turnaround lane exit gate.
VT-7	The TCS shall record the transaction as a turnaround transaction and the recorded event at the gate shall be correlated to the turnaround transaction for auditing purposes.

1.4.3.4 Lane Mode Sign Requirements

The Lane Mode Sign (LMS) is used to display a message that indicates to the drive entering the lane the operating mode when the lane is open (indicated by a green symbol or background). The LMS should display an indicator that

the lane is open. When the land is closed, the LMS should indicate the lane is closed (indicated by a red symbol or background) and display the message “Closed” on the sign. There should be one LMS sign located on the entry gantry above each lane.

No.	Lane Mode Sign Requirements
LMS-1	The LMS shall be bright enough to be read under all lighting conditions.
LMS-2	The LMS shall be capable of displaying multiple lines of text and variable sized fonts.
LMS-3	The LMS shall display the current operating mode based on commands from the Lane Controller.
LMS-4	The LMS shall display a background or symbol indicating the usage mode of the Lane Controller based on open or closed.
LMS-5	Messages displayed on the LMS shall be configurable without programming changes based on the current operating mode of the Lane Controller.
LMS-6	When the LMS loses communication with the Lane Controller, it shall display a preconfigured message (or revert to a blank sign).

1.4.3.5 Automated Vehicle Detection/Classification (Pre-Class) Requirements

The TSP shall be responsible for installing the required hardware (sensors, cameras, etc.) as part of the Pre-Class AVC system that shall accurately detect and classify vehicles traveling in stop and go (“bumper-to-bumper”) traffic, or vehicles traveling at speeds up to 30 mph for manual lanes, and in each case separate vehicles spaced at two (2) feet apart. The AVC system provided shall have the ability to detect hitches and ensure that vehicles with a tow are reported as one unit and classified according to the number of axles and height of the vehicle. This AVI classification will be used to indicate to the collector the toll that needs to be collected and also verified against the Post-Class AVC classification.

No.	Automated Vehicle Detection/Classification (Pre-Class) Requirements
AVC-1	The Pre-Class AVC subsystem shall detect all vehicles traveling through a Tolling Point from 0 mph up to and including 30 mph (within ±5 mph tolerance).
AVC-2	The Pre-Class AVC subsystem shall be capable of separating vehicles spaced as closely as 2 feet apart from front to rear in both high speed (35 MPH) and stop and go traffic conditions.
AVC-3	The Pre-Class AVC subsystem shall correctly detect any vehicle towing a trailer(s) and treat the combination as a single vehicle.
AVC-4	The Pre-Class AVC subsystem shall measure the number of axles and height of vehicle and determine the associated vehicle class.
AVC-5	The Pre-Class AVC subsystem shall associate the measured axle count and height and the corresponding vehicle class with the correct vehicle.
AVC-6	The Pre-Class AVC subsystem shall classify vehicles under all weather conditions without degradation.
AVC-7	An option shall be provided for the installation of a non-intrusive, overhead device that performs the vehicle classification that eliminates the need for pavement modifications.
AVC-8	All tolling lanes shall be configured with the same Pre-Class AVC system.

1.4.3.6 Automated Vehicle Identification Requirements

The TSP shall be responsible for the procurement, installation and tuning of all AVI hardware. The AVI system interface provided by the TSP shall be able to receive transponder information with no degradation of performance or interference. The AVI system shall have the ability to process transponders mounted on vehicles traveling in stop and go ("bumper-to-bumper") traffic, on vehicles traveling at speeds from 0 to 100 mph, and vehicles that are spaced at two (2) feet apart. It shall be the responsibility of the TSP to verify that AVI equipment is compatible with existing transponders without any degradation in system performance.

No.	Automated Vehicle Identification Requirements
AVI-1	The AVI subsystem shall have field proven ability to support the identification of multiple transponder protocols that include: ISO 18000-6C (6C), ISO 18000-6B {SeGo) and E-ZPass TDM.
AVI-2	GNOEC does not currently recognize Sego and TDM transponders. The system shall allow these additional protocols to be enabled in the future without software modification.
AVI-3	Each lane shall have an AVI subsystem dedicated to that single lane.
AVI-4	The AVI subsystem shall detect and read properly installed transponders on vehicles at all areas of the tolling read zone, including transponders mounted either in the center of the windshield or on the driver's side of the windshield.
AVI-5	The AVI subsystem shall prevent an AVI reader in a lane from reading the transponders of vehicles traveling in the adjacent lanes on both sides.
AVI-6	The AVI subsystem shall buffer at a minimum 5,000 Transponder reads in the event of loss of communications to the Lane Controller.
AVI-7	Buffered AVI reads shall be transmitted to the lane controller when communication is re-established, and transactions created with these AVI reads shall be identified as buffered transactions by the lane controller.
AVI-8	Setup and configuration of the AVI system shall be achieved remotely and shall not require lane closure except for major lane tuning.

1.4.3.7 Tag Validation List Requirements

The TSP shall provide a means to distribute an AVI patron validation list or database to the lane controller. The TSP shall provide an interface to the CSC to receive the required Tag Validation List (TVL) data. TVL data will be provided by the CSC in bulk and incrementally in a periodic manner.

No.	Tag Validation List Requirements
TVL-1	The TSP shall provide an interface to the CSC to receive the required Tag Validation List (TVL) data.
TVL-2	TVL data will be provided by the CSC in bulk and incrementally in a periodic manner.
TVL-3	TVL data will be transmitted to the lane controllers to determine if a transponder is associated with a patron account in good standing.
TVL-4	The TSP shall work with the CSC vendor to develop and implement the TVL exchange interface.

1.4.3.8 Collector Terminal/General User Interface Requirements

The Toll Collector will control the operations of the lane utilizing the Manual Collector Terminal (MCT). An MCT shall be installed in each lane booth. The MCT shall be touch screen-based utilizing buttons the collector can press to process the functions provided. The user interface (UI) should be ergonomically designed and easy to use. It should provide all the information needed to process traffic in the lane by the Toll Collector such as vehicles in the queue with their classification and tag information, status of display devices, and buttons for toll collection functions.

No.	Collector Terminal/User Interface Requirements
UI-1	All lanes shall be equipped with a Touch Screen MCT controlled via the lane controller.
UI-2	The MCT shall be an industry standard COTS product and have at least a 17 inch diagonal viewable area and shall be adjustable to at least an angle of 30 degrees in all horizontal and vertical directions.
UI-3	The MCT shall employ resistive touch technology to provide for use with a gloved hand, etc.
UI-4	The Collector Terminal screens shall support the toll operations and the screen configuration and layout shall be finalized during the design phase. The objective of the Collector Terminal design is to provide an efficient mechanism for a toll collector to process each vehicular transaction.
UI-5	Button design shall include consideration for frequently used features and minimize the number of button pushes to process the transaction.
UI-6	Button responses shall be immediate, and where possible, default criteria shall be used to help speed traffic through the lanes.
UI-7	Collectors shall be presented with the class and rate of each vehicle and be capable of re-classifying when appropriate.
UI-8	When the lane is in the closed state, the MCT shall display the login screen allowing a collector to enter their authorization information and choose the lane mode of operation.
UI-9	Once a lane is in the open state, the MCT main screen shall support a logical, efficient process for toll collectors to classify the vehicles and collect the revenue due. The MCT shall display at least the last 5 lane transactions to allow toll collectors to keep track of payment queues.
UI-10	The MCT main screen shall allow toll collectors to override AVI transactions with a cash, credit card or non-revenue payment type.
UI-11	The MCT main screen shall allow the toll collector to enter the non-revenue payment information (PID) when the non-revenue payment button is selected.
UI-12	The MCT main screen shall provide a button to manually enter the avi agency and tag number for transponders not read by the system.
UI-13	The MCT main screen shall contain buttons to enter/exit the special modes of operation (Evacuation and Special Event) and indicate on the screen the special mode is active.
UI-14	The MCT main screen shall provide a button to enter and exit standby mode. It should also contain a logoff button to end the collector segment of duty and return to the login screen.
UI-15	The MCT main screen shall provide an interface for a collector to connect to an adjacent lane to preform remote functions such as a turnaround of the vehicle or a reset of the current vehicle in the lane.

1.4.3.9 Credit Card Payment Requirements

Each lane with a booth should be equipped with credit card hardware and software to process credit cards by patrons for payment of tolls. The credit cards should only be handled by the patrons. If the credit card equipment is not mounted on the booth where it can be reached by the patron, the toll collector should be able to hold the equipment for the patron to process the credit card.

No	Credit Card Payment Requirements
CC-1	The TSP shall provide PCI compliant EMV payment terminal to process credit card payments for tolls processed by the toll collector.
CC-2	The card payment system shall be fully integrated into the toll collector terminal/user interface and provide online card validation.
CC-3	The payment terminal provided shall accept all major credit and debit cards (e.g. Visa, Mastercard, American Express and Discover)
CC-4	The payment terminal provided shall process payments via chip, magnetic stripe, and contactless NFC technology including but not limited to Apple Pay, Google Wallet and Samsung Payment
CC-5	Credit cards will not be handled by the toll collectors. The payment terminal should be able to extend outside the booth to allow the patron to process the payment.
CC-6	The TCS shall provide a consolidated receipt of the transit information as well as the credit card payment information upon request.
CC-7	No credit card information should be stored in the transaction record associated with the toll transaction.
CC-8	The EMV payment terminal shall be compliant with the payment processor approved by GNOEC.

1.4.3.10 Receipt Printer Requirements

All lanes with a booth shall have a receipt printer capable of generating receipts to patron. Existing receipt printers shall be removed by the Contractor. The format should at minimum have a configurable message of the day and contain necessary Credit Card information if payment is by credit card. The receipt printers shall be capable of operating in a toll environment where vehicle exhaust and dust are prevalent. The hardware shall meet the environmental conditions stated in the general hardware requirements, and the lane controller shall interface with this device. The receipt printer shall be capable of responding to diagnostic messages and be able to generate configurable alarm and paper status conditions.

No.	Receipt Printer Requirements
RP-1	Each lane shall have a receipt printer capable of generating receipts to patron and shall be an industry standard COTS product.
RP-2	Transaction receipts shall be printed within three (3) seconds of initiating the receipt print.
RP-3	The receipt printer shall automatically cut receipts when printing is complete.
RP-4	The receipt printers shall support commonly available receipt paper and toll collectors shall be able to change the paper without the assistance of maintenance technicians.

No.	Receipt Printer Requirements
RP-5	The receipt printed should contain the critical information of the transaction, including but not limited to: • Lane Number • Transaction Date/Time • Vehicle Class Charged • Toll Amount Paid • Method of Payment • Credit Card authorization approval code from the card issuer, if applicable • Last 4 or 5 digits of the credit card account number, If applicable

1.4.3.11 Patron Fare Display Requirements

The Patron Fare Display (PFD) provides information to patrons as they travel through the lane. Located behind the toll booth, it displays feedback to the patron concerning the vehicle currently located at the toll booth. The amount of the fare to be paid for cash transactions or the status of the AVI tag is displayed to assist the patron as it enters and leaves the area in front of the toll booth. The PFD is also used to indicate to the patron whether to stop and pay or to go through the exit with verbiage and color icons (e.g. red to stop, green to go).

No.	Patron Fare Display Requirements
PF-1	A PFD shall be installed at each lane behind the booth and viewable to the patron as the vehicle approaches the booth.
PF-2	The PFD shall display text on a color LED display.
PF-3	For cash or credit card transactions, the text shall contain at least the fare amount due.
PF-4	For valid AVI tags, the text shall indicate patron should proceed to exit the lane.
PF-5	The PFD shall include a reading angle of at least 50 degrees with a minimum viewing distance of 15 feet in all weather and sunlight conditions.
PF-6	If no traffic light is installed after the booth, the PFD shall display icons representing a traffic light along with messages indicating the vehicle must stop or can go based on transaction status.

1.4.3.12 Post Classification Requirements

The TSP shall be responsible for installing the required hardware (sensors, cameras, etc.) as part of the Post-Class AVC system that shall accurately detect and classify vehicles exiting the lane. The AVC system provided shall have the ability to detect hitches and ensure that vehicles with a tow are reported as one unit and classified according to the number of axles and height of the vehicle. This Post-Class AVC classification will be used to record the actual AVC class of the exiting vehicle to compare against the Pre-Class/Collector Class of the vehicle.

No.	Automated Vehicle Detection/Classification (Post-Class) Requirements
PC-1	The Post-Class AVC subsystem shall detect all vehicles traveling through a Tolling Point from 0 mph up to and including 30 mph (within ±5 mph tolerance).
PC-2	The Post-Class AVC subsystem shall be capable of separating vehicles spaced as closely as 2 feet apart from front to rear in both high speed (35 MPH) and stop and go traffic conditions.
PC-3	The Post-Class AVC subsystem shall correctly detect any vehicle towing a trailer(s) and treat the combination as a single vehicle.
PC-4	The Post-Class AVC subsystem shall measure the number of axles and height of vehicle and determine the associated vehicle class.
PC-5	The Post-Class AVC subsystem shall associate the measured axle count and height and the corresponding vehicle class with the correct vehicle.
PC-6	The Post-Class AVC subsystem shall classify vehicles under all weather conditions without degradation.
PC-7	Any vehicle detected with fewer than 2 axles shall default to 2 axles for toll calculation purposes.
PC-8	Any vehicle detected with more than the maximum number of axles as defined in the rate table shall default to the maximum number of axles for toll calculation purposes.
PC-9	An option shall be provided for the installation of a non-intrusive, overhead device that performs the vehicle classification that eliminates the need for pavement modifications.

1.4.3.13 Digital Video Auditing System Requirements

The Digital Video Auditing System (DVAS) is used to capture video footage of all vehicles traversing a lane predominantly for audit purposes, but also for diagnosing possible system issues. GNOEC would prefer color over black and white DVAS cameras. The DVAS should provide reviewing capabilities and provide searching for vehicle activity based on multiple factors.

No.	Digital Video Auditing System Requirements
DVAS-1	The TSP shall provide a Digital Video Audit System (DVAS) with cameras installed at each Tolling Lane to allow independent toll auditing and surveillance.
DVAS-2	The DVAS cameras must be mounted for traffic surveillance in each Tolling Lane to provide optimal field of view and minimize obstructions by other vehicles.
DVAS-3	The DVAS shall include all equipment and software necessary to provide the audit capability including, but not limited to: • High resolution, color digital cameras and any associated lenses, lighting, and sensors • Integrated with the Lane Controller to capture event data • Storage media • Application to view real-time video and events and playback the information
DVAS-4	The DVAS cameras shall provide clear, high-quality video to identify characteristics of vehicles at each lane. If the DVAS cameras require additional lighting, the TSP shall design, supply, and install the additional lighting.

No.	Digital Video Auditing System Requirements
DVAS-5	The DVAS shall combine the playable video images of traffic with data overlay (or a correlated listing) including comprehensive transactions and detailed real-time "event" data (i.e., lane component events, toll collector button-presses, AVC classifications, AVI tag reads, PFD messages, etc.)
DVAS-6	The DVAS video and data shall be accessible in read-only mode; no changes or alterations to the video or data shall be allowed.
DVAS-7	The DVAS shall perform and display video and data in real-time and shall have the ability to playback events and data.
DVAS-8	The DVAS shall be time synchronized to the same source as the Lane Controllers to properly correlate lane events overlayed on or correlated with the video.
DVAS-9	The DVAS UI shall allow authorized users to rewind, fast forward, replay, or step through frame-by-frame the video segment.
DVAS-10	The DVAS shall have the capacity to record and store locally at the roadside, up to 45 days (configurable) of video and data to an electronic media for each installed DVAS camera.
DVAS-11	The DVAS shall be sized to operate on a continuous basis (24 hours per day, 7 days per week, 365 days per year) recording and saving each vehicle that traverses a lane.

1.4.3.14 Image Capture Subsystem (ICS) Requirements

The Image Capture System (ICS) captures images of all front and rear license plates. Vehicle license plate images are captured and processed in accordance with the Business Rules to be developed during the design phase and the violation legislation. The ICS subsystem should have the capability to OCR the license plates and store the license plate data along with the vehicle transaction data for which the image was taken.

No.	Image Capture System (ICS) Requirements
ICS-1	The TSP shall provide an Image Capture Subsystem (ICS) to capture both a front and rear image of selected vehicles as indicated by the Lane Controller.
ICS-2	The ICS shall provide adequate supplemental lighting where necessary to ensure visible and legible license plates in both rear and front images in all lighting conditions.
ICS-3	The size and compression factor of images shall take into consideration the need for human review as well as Automatic License Plate Recognition algorithms to extract the Plate Data to associate with the vehicle transaction.
ICS-4	The ICS shall be synchronized with and exchange data with the Lane Controller to ensure that vehicle images are properly associated with the correct vehicle and its transaction data.
ICS-5	The TCS shall provide an Image Review Utility to view selected ICS images stored on the Lane Controller or in real-time for quality assurance and maintenance purposes.
ICS-6	The conditions that shall cause the ICS to capture images (based on messages from the Lane Controller) shall include, but not be limited to: • Violation Transactions • Transactions with a AVC Mismatch

No.	Image Capture System (ICS) Requirements
ICS-7	The ICS shall incorporate an ALPR (Automatic License Plate Recognition) engine providing for the extraction of Plate Data (issuing jurisdiction, plate number and plate type) from captured images
ICS-8	The ALPR engine shall produce a single Confidence Level number per image that indicates how certain the ALPR engine is that the Plate Data produced by the ALPR is correct.

1.4.3.15 Collector Cash Out/Cash In Requirements

GNOEC seeks to improve the efficiency and accuracy of today's toll plaza cash-handling process to increase efficiency, security and accountability, by leveraging automation and modern practices to the greatest extent possible.

At the beginning of a collector shift, the collector is supplied with a cash drawer with a specified amount of change. At the end of the shift, the collector is responsible for counting the money in the drawer, leaving the initial specified amount. These counts are entered into the system as a deposit for the shift they just completed. The collector when creates a deposit by putting the counted money in a deposit bag and drops the bag in the safe.

No.	Collector Cash Out/Cash In Requirements
CCOI-1	The TCS shall provide a Cash Out/Deposit function to be used by Toll Collectors upon completion of their final Tour Segment.
CCOI-2	The Cash Out/Deposit function shall be provided via a Toll Collector workstation located in the counting room of the Plaza.
CCOI-3	The Cash Out/Deposit function shall allow a Toll Collector to log into the workstation and access the collector' shift information and select the shift for which the deposit is being made.
CCOI-4	The Deposit Entry function shall provide the Toll Collector the ability to enter at minimum the following information: • Shift • Bag Number • Currency counts by denomination • Coin counts by denomination
CCOI-5	The Cash Out/Deposit function shall print a report to the collector with the Deposit details.
CCOI-6	The Cash Out/Deposit function shall print a deposit slip that the collector will include in the deposit bag.

1.4.3.16 Plaza Supervisor Requirements

The Plaza Supervisor monitors the current processing conditions of the toll lanes. The Plaza Supervisor function is a GUI-based interface used to monitor, verify activity and control the toll lanes when required. Alerts associated with each lane controller should be displayed and highlighted when critical conditions exist. The interface should require valid logins by authorized personnel where Toll Supervisors have full control of the interface and other users have view only access.

No.	Plaza Supervisor Requirements
SUPV-1	The TCS shall provide a Plaza Supervisor function to be used by toll supervisors to monitor and control the lane activity at the plaza.
SUPV-2	The Plaza Supervisor function shall provide a login interface where each user that logs into the interface has access based on assigned role, such as full control or view only.
SUPV-3	The Plaza Supervisor function shall consist of a real-time graphical interface for monitoring lane activity, providing immediate updates on events occurring at each lane.
SUPV-4	The Plaza Supervisor function shall be accessible from designated workstations accessible on the GNOEC network.
SUPV-5	The Plaza Supervisor function shall provide the ability to control an unattended lane (e.g. Open/Close a lane, complete a transaction for a vehicle that has stopped in the lane, etc.)
SUPV-6	The Plaza Supervisor function shall provide the ability to view cameras associated with each lane.
SUPV-7	The Plaza Supervisor function shall provide the current status of the lane equipment and current alerts associated with each toll lane.
SUPV-8	Each displayed Lane in the Plaza Supervisor monitoring screen shall include the currently logged on Toll Collector, the current Lane state, the current Lane mode, the time and details of the last vehicle transaction and status indicators for the equipment categories of Pre-Class AVC, AVI, DVAS, Post-Class AVC, and ICS.

1.4.4 Toll System Host Requirements

The Toll System Host (TSH) collects all data from the toll lanes, and functions as the back-office system for reporting and auditing of tolling activity. The auditing functions allow for adjustments to collector shifts for shift corrections and reports used to balance and audit the collector shifts. The TSH provides a suite of traffic and revenue reports. Reports provide summarized or detail traffic information using a varied selection of payment types, classification information and time periods. Host reports are also available for collector performance monitoring.

The TSH shall be sized to accommodate GNOEC's existing lanes and functions, and be expandable to accommodate potential System changes in the future.

The Customer Service System currently exists and will not be replaced at this time. The TSH is the single interface between the TCS and the existing CSC System to receive patron account status changes used in the lanes to validate AVI tags and to transmit tag patron transactions from the lanes to the customer service center.

The TSH provides several subsystems that provide functionality for system management, auditing and reporting. It is the depository of all toll collection data that is used for review, auditing and reporting.

The following sections describe the functional requirements of the subsystems of the TSH.

1.4.4.1 Toll System Host Architecture

The TSH should include functionality required to operate the toll collection system for all tolling activity designed to support the entire operational flow. The TSH environment should be a redundant design using an on-premise high availability architecture. This can be accomplished by either an active-passive server solution or a virtualized environment with a clustered environment. The active-passive solution has multiple servers where there are active servers supporting processing and a passive or hot servers that can take over in situations where one of the active servers fails. With the virtualized environment, there would be multiple physical hosts supporting the virtual hosts required to supply the processing for the TSH. The TSH would continue to run without intervention if one or more of the physical servers fails.

No.	TSH Architecture Requirements
TSHA-1	The TSH architecture shall be designed and implemented with high availability as a priority.
TSHA-2	The TSH architecture shall be either a passive-active server solution or a clustered virtualized environment where servers supporting the TSH are virtualized on the physical virtualized environment.
TSHA-3	The TSH architecture should be distributed across separate GNOEC locations and should be accessible from anywhere on the GNOEC network.

1.4.4.2 Transaction Processing Requirements

The TSH receives all transaction data from the lane controllers and process each according to the type of transaction. Transactions fall into one of the following categories:

- Manual lane transactions,
- AVI transactions,

- Credit card transactions, or
- Non-payment transactions.

No.	Transaction Processing Requirements
TP-1	Manual Lane Transactions: Transactions from manual lanes are summarized into Toll Collector Segments-of-Duty (SOD) and processed for audit and reconciliation. Manual transactions are summarized at the TSH into Summarized data and will be used to generate various reports that assist the GNOEC with the revenue and transaction reporting (such as cash, non-revenue, ETC payments). The transaction data is also summarized by time and this data shall be used for traffic reporting and traffic analysis. The toll collector SOD consists of the following sequence of activities to create the SOD. • Collector logs into lane (System logs via card swipe or ID input on MLT) • Lane opened by Toll Collector via MLT • Transactions via MLT (Collector processed and non-revenue transactions) • Automatic transactions (ETC and violations that are automatically processed by the lane) • Lane closed by Toll Collector via MLT
TP-2	AVI Transaction Processing: The TSH shall process all AVI transactions from the lane controllers and format each transaction for transmission to the CSC. The TSH should transmit all AVI transactions to the CSC in near real time.
TP-3	Credit Card Processing: The TSH shall process all credit card transactions from the lane controllers. The TSH shall provide necessary credit card clearing service interface to transmit submit and reconcile credit card transactions.
TP-4	Non-Payment Transaction Processing: All transactions received by the TSH that does not contain a valid payment based on GNOEC business rules shall be verified for completeness and processed for matching with images. If the Violation Processing System is present, the transaction and images should be forwarded to the VPS. Otherwise, if a license plate is obtained from the images, the TSH should transmit the transaction to the CSC for further processing.

1.4.4.3 Revenue and Audit Adjustments

The TSH shall provide the systems and functions for GNOEC staff to audit toll collector and plaza cash and credit card handling. GNOEC audit staff should have access to the DVAS functionality in support of the audit functions.

The TSH shall receive revenue deposit data from the Bank for each deposit bag picked up and counted by the bank. The TSH associates the Bank data to the appropriate system (summarized lane controller transaction data) for that

deposit bag. The system should be capable of reconciling money room counts with manual cash transactions. The system shall include reconciliation and audit reports that detail the reconciliation results and identify all variances.

The TSH has the capability for authorized personnel to make adjustments to all data for audit and reconciliation purposes. All adjustments shall be tracked along with user identification of the authorized personnel making the adjustments.

Financial audits are conducted monthly and annually of the toll revenues. The TSH should support the audits with monthly and annual reports to assist in the process.

No.	Revenue and Audit Requirements
TSHRA-1	The TSH shall provide the functionality to adjust the collector's shift information (e.g. when a collector shift is logged for the wrong revenue day)
TSHRA-2	The TSH shall provide the ability to amend a collector's cash, credit and AVI totals for a Tour of Duty.
TSHRA-3	The TSH shall provide the ability to amend the traffic associated with a Tour of Duty when adjusting a collector's cash, credit and AVI totals.
TSHRA-4	The TSH shall not allow auditors to delete any information included in lane transactions or entered by the collectors as part of the cash out process. Updates to shift information can only be created or amended.
TSHRA-5	The TSH shall provide reports that show all auditor adjustments.
TSHRA-6	The TSH shall provide the ability for an auditor or supervisor to enter the collector counts from a deposit slip for a collector's Tour of Duty.
TSHRA-7	The TSH shall provide the ability to generate a bank deposit slip to include with the collector deposits where the deposit bags are then bagged to make the deposit to the bank.
TSHRA-8	The TSH shall provide the functionality to import the bank statement for a deposit and generate a variance report showing the collector deposit amounts vs. the bank counts. (An alternative is to allow the bank statement details to be entered manually into the system)

1.4.4.4 Toll System Host Reporting

All data entered or generated in the TCS shall be retrievable through reports and screens. Reports and screens shall be web-based and made available through the Reporting System and shall have various selection and sort criteria that is easily configurable.

The following are examples of several high-level categories of reports that are required as part of the TSH:

1. Traffic Reports: Various traffic related reports based on time interval, hour, day, week, month, year and YTD (both calendar year and fiscal year). Ability shall be provided to compare specified data for given time intervals, dates, weeks, months, years or YTD. System shall also have the ability to generate descriptive statistics reports. Reports shall be by plaza and/or lane.

2. Transmission Reconciliation Reports: Daily reports that show AVI and violation transaction transmission (to the CSC) reconciliation.

3. Transactions Reports: Daily, weekly, monthly, quarterly, and yearly transactions reports based on transaction type (such as cash, non-revenue, AVI, violation). Detailed transaction reports shall also be provided. Summarized and detail reports on the trip determination shall also be provided.

4. Revenue Reports: Daily, weekly, monthly, quarterly, and yearly transactions reports showing expected and posted revenue by revenue payment type. Reports shall be by plaza and/or lane.

5. Violation Reports: Various violation reports that track the different stages of the violations, show notices issued and payments received, violation trends, violation receivables, violation aging, and other significant information.

6. Finance and Audit Reports: Various financial and audit reports that show daily, weekly, monthly, quarterly, and yearly revenue. Various comparative reports shall also be provided. Screens showing revenue with the ability to make adjustments shall be provided to allow auditors to make adjustments as needed. Also reports that show forecasting and trending information to allow for potential changes in the system.
7. Collector Reports: Daily reports that show Toll Collector segments and shift data. Reports shall include transaction by class with expected axles and revenue and associated collector classed axles and revenue. Reports shall also include the automated calculation of collector performance metrics, including but not limited to, throughput processing by hour and shift, collected versus expected revenue (also referred to as “over and short”), numbers of unusual occurrences and violations or other typical industry metrics for collector performance and audit.

8. Deposit Bag Reconciliation Reports: Daily reports that include the results of the reconciliation of the deposit bag revenue reported by the Bank to the System expected revenue. Exception reports shall also be generated that identify only vaults and deposit bags that exceed a selected variance/threshold (amounts selectable).

No.	Toll System Host Reporting Requirements
TSHR-1	The TSP shall provide a reporting system for the TSH. Appropriate revenue, reconciliation, performance, operational, financial and audit reports shall be provided so that GNOEC can monitor operational and financial performance and to reconcile revenue and transactions.

No.	Toll System Host Reporting Requirements
TSHR-2	The TSP shall provide a GUI for reporting that allows for search criteria entry by appropriate fields for each report in the system. The data reported in the reports shall be based on the search criteria entered.
TSHR-3	The TSH reporting system shall provide for secure access and restriction to reports based on configurable user roles and privileges.
TSHR-4	Report generation shall not impact the performance of the production system
TSHR-5	The selection criteria shall allow the user flexibility with the sort order of the data output.
TSHR-6	Reports generated shall have the capability of being view on the screen and/or saved to the local PC in multiple formats (e.g. PDF, HTML, Microsoft Excel or comma delimited txt).
TSHR-7	The Reporting System shall have the ability to drill down all high-level reports to the next level and down to the details.

1.4.4.5 Maintenance On-line Management System (MOMS)

The TSP shall furnish and integrate a Maintenance On-line Management System (MOMS) application software package to monitor and maintain the TCS implemented as part of this procurement. The MOMS application is a comprehensive tool to be used by GNOEC maintenance personnel for monitoring, reporting and tracking alarm messages as well as maintaining status, location, health, and attributes for equipment asset (inventory). The application and database can reside on a dedicated MOMS server or as part of the THS. Hardware and software requirements shall be the same as those required of the TSH servers.

The TSP shall work with the GNOEC in configuring the MOMS to meet GNOEC maintenance needs.

The MOMS will have two major components, a system monitoring component that provides alarms and an inventory management to track all devices and spare parts.

1.4.4.5.1 TCS Monitoring and Notification Alerts

The TSP shall ensure that the furnished MOMS shall have the following monitoring capabilities:

- Receives and monitors status messages from all devices via lane controllers and TCS servers
- Monitor device failures, notifications and work order status
- Records completion of service calls and work orders
- Ability to enter comments and reason codes in work orders and repair orders for tracking maintenance performance and maintenance repair.

The MOMS shall support real-time alerting of maintenance staff and shall be configurable to meet GNOEC operations requirements.

- Automatic notification to the maintenance technicians via reports and/or paging, including but not limited to text messaging, email or similar remote notifications.

- Automatic notification includes the priority fault designator

No.	TCS Monitoring and Notification Alerts Requirements
MOMS-1	The MOMS shall monitor activities, provide alerts and generate tickets in real-time for all processes and unusual activity triggered by the TCS, including but not limited to: communication, Hardware, Software, and database failures.
MOMS-2	The MOMS shall provide screens and other tools for an GNOEC user(s) to manually report or record reports of Toll System issues conveyed verbally or via e-mail.
MOMS-3	The MOMS shall provide a near real time dashboard showing the operational and performance status all TCS components.
MOMS-4	The MOMS monitoring dashboard shall have the ability for users to select a lane and drill down for additional device performance information.
MOMS-5	MOMS shall monitor each TCS component to detect and record when the component is performing at a degraded level, has failed, changed state, is intermittent, or is in recovery.
MOMS-6	MOMS shall monitor the connection and transfer of files and real time data between the TSH and all required external systems.
MOMS-7	MOMS shall allow authorized users to set parameters for all error notifications, status changes, and escalation rules. The MOMS shall provide all of the screens and tools for an GNOEC user(s) to select any and all types of alerts they wish to be notified of, the associated notification method(s), the associated threshold that must be reached prior to each alert type being sent by each notification method and the maximum frequency with which each alert type will be sent by each notification method.
MOMS-8	MOMS shall provide the capability to automatically notify a user configurable list of technicians and/or GNOEC staff, at a minimum, by Short Message Service (SMS) text and email when an event occurs in the TCS.
MOMS-9	The MOMS shall provide for an GNOEC user(s) to easily comment on the alert and have that comment reflected in reports about the alert and reports of Toll System performance.
MOMS-10	The MOMS shall provide the ability for an GNOEC user to acknowledge and close an alert that has been generated.

1.4.4.5.2 Inventory Tracking

A spare parts inventory of equipment shall be maintained in the MOMS subsystem. Tracking and purchase management of all toll related equipment shall be done through MOMS. When spare parts inventory reached a configurable threshold, automatic alerts shall be generated to maintenance staff for purchasing new inventory.

No.	Inventory Tracking Requirements
INV-1	The MOMS shall track all TCS elements including but not limited to servers, workstations, lane controllers and each field replaceable unit and all associated spare parts.
INV-2	The MOMS shall: • Provide tracking of all maintenance and service agreements • Maintain a list of vendors from where products were procured • Associate the original purchase order number to the individual item • Associate the original vendor number to the individual item • Associate all warranty information to the individual item • Provide an alert prior to warranty expiration
INV-3	The MOMS shall issue an alert when spare parts inventory is reduced to a configurable threshold quantity.
INV-4	The MOMS shall provide a user interface to enter, update and maintain the information about spare parts and provide reports providing listings, status and maintenance history of the spare parts inventory.
INV-5	The MOMS shall have the ability to track the location and maintenance history of maintained components.

1.4.4.6 Violation Processing System (VPS)

The TSP shall provide the option of integrating the functionality required for a Violation Processing System (VPS) as part of the TSH that supports the Toll Collection System and interfaces with the CSC. Image storage and the OCR functionalities shall be considered a part of the VPS. The VPS shall receive transaction data from the TSH as well as acquire image data from the lane ICS equipment.

The VPS must include state of the art functions for the following:

- efficient and accurate image review, including a verifiable Optical Character Recognition (OCR) function with an acceptable accuracy rate,
- interface with state vehicle registration files,
- tracking violators and violations,
- issuing of violation notices, correspondence, collection tracking,

- links to the CSC module for automated video tolling of ETC accounts when the transponder is not read and to support video-based toll accounts.

The VPS shall be listed as an optional feature of the TCS. Pricing associated with the VPS shall include all necessary hardware, software, installation and integration costs required to interface with the Roadside system.

1.4.4.6.1 VPS-CSC Interface

The VPS shall be capable of interfacing with the existing CSC for any of the following scenarios:

- License Plate Information (LPI) either by receiving a valid tag customer LPI file or by direct query to the CSC
- Transmitting tag customer image transactions as AVI transactions
- Receiving filtered LPI lists from CSC for Violation Processing

Note: The final details of the process for determination of transponder customers captured by the VES may include the above scenarios. The final design of these interfaces will be done in conjunction with the existing CSC provider.

1.4.4.6.2 VPS Processing

The VPS shall also support GNOEC violation processing requirements in accordance with GNOEC Business Rules (to be developed during the design process).

The VPS all support all operations related to violations; including but not limited to, license plate review and processing and customer service support. In addition, the VPS shall provide for all violation notifications and violation collection procedures in accordance with GNOEC Business Rules established during the design process and the State legislation (current and proposed).

The VPS shall be used to process images received from the lanes, interface with the DMV for look-up, issuing and tracking notices and citations.

The VPS Image Review function shall allow users to search for violation transactions and view the associated images. It shall allow the user to validate the license plate generated from the OCR process and also enter the license plate information from viewing the images associated with the violation.

1.4.4.6.3 VPS Reporting

GNOEC requires reports to ensure proper performance as well as transactions and revenue reconciliation. Report formats shall be developed during the design phase.

1.4.4.7 Existing CSC Interface

The existing CSC interface is used to send transactions to the CSC and receive AVI status updates from the CSC This interface is implemented by utilizing an Oracle database residing in the CSC environment with tables used for the transactions and the AVI status updates.

All transactions with an AVI payment from the lane controllers are posted in near real time to the CSC by inserting a record into the transaction table. The table has triggers defined that also record processing information such as time inserted, time processed, etc. No further processing is required by the TCS.

As the CSC processes tag accounts, records are inserted into the AVI status update table indicating a tag status has changed for tag transponder. It is the responsibility of the TCS to periodically check this table for newly inserted records and process the AVI status updates to the necessary locations in the TCS. Once a tag status update has been processed, the record should be updated to indicate that it has been processed. As with the transaction table, this table also has triggers defined that record processing information such as when a record was selected and when it was updated.

Further discussion of the details, and possible changes to this interface will be discussed during design meetings with the CSC designers.

1.4.5 Performance Requirements

The TSP shall provide a TCS that is designed to meet the accuracy, performance and throughput requirements listed below at the speeds specified below. The testing logistics required to verify these requirements shall be detailed in the Master Test Plan and the test procedures as documented in the Testing Requirements section of this document.

No.	Performance Requirements
PERF-1	**Transponder Read Accuracy** - A Transponder mounted in accordance with the manufacturer mounting instructions shall be read by the AVI system under all conditions within the design specification described in this document with an accuracy of 99.95% or the certified number at the time of testing.
PERF-2	**Transponder Report Accuracy** - The lane controller shall be required to process 100% of all tags read by the AVI equipment (including buffered reads) under all conditions.
PERF-3	**Vehicle Detection Accuracy** - The lane controller shall detect and report all vehicles traveling through the tolling location with an accuracy of 99.99% under all conditions.
PERF-4	**Vehicle Pre-Classification Accuracy** - The lane controller shall classify all vehicles per GNOEC classification structure traveling through the pre-classification tolling location with an accuracy of 97% under all conditions.
PERF-5	**Vehicle Post-Classification Accuracy** - The lane controller shall classify all vehicles per GNOEC classification structure traveling through the pre-classification tolling location with an accuracy of 99.8% under all conditions.
PERF-6	**Transponder Association Accuracy** - Every transponder that is reported to the lane controller shall be assigned to the correct vehicle with an accuracy of 99.95% under all conditions.
PERF-7	**Transaction Posting Accuracy –** All transactions generated by the lane controllers in accordance with previous accuracy requirements shall be reported to the TSH with an accuracy of 100%.
PERF-8	**Vehicle Throughput –** The lanes shall be capable of processing 800 vehicle per hour per lane. This requirement shall be based on 100% cash payments with no receipts.

No.	Performance Requirements
PERF-9	**System Server Availability** – Each system server provided as part of the TCS shall provide functional availability equal to 99.99% or better. The TSP shall be allowed to take the TSH off-line for maintenance periods with approval by the GNOEC.
PERF-10	**Lane Availability** – Each lane provided as part of the TCS shall provide system availability equal to 99.5% or better. Availability includes normal operations and the allowable degraded operations to be defined in agreement between the GNOEC and the TSP.

1.4.6 System Schedule and Transition

The TSP shall be required to meet the schedule requirements in the Contract. System schedule and transition activities shall be structured as such to meet the Contract requirements. Beyond these milestones, the TSP shall have the flexibility to present work schedules and transition plans that meet the project requirements but also provide for value and innovation by the TSP. Regardless of the proposed schedule and transition details, the following requirements and priorities shall be met:

- Protection of revenue collection under the existing system before and during cutover
- Minimization of non-revenue impacts to existing operations and maintenance
- Phased roll out of systems such that adequate testing and verification can be completed and contingencies prepared in the event of extended testing or installation delays

All proposals shall include a detailed implementation plan, including an overall schedule, with a Transition Plan that identifies the plan for transition from the current system to the proposed system. The Transition Plan shall detail the process and steps required to ensure that all existing account and violation data is migrated from the existing GNOEC system to the TSPs System. The Transition Plan needs to take into account the transition from the existing Host to the TSP TCS especially during the period when there will be some lanes with existing equipment and some lanes utilizing the TSP equipment. The Transition Plan shall detail how the TSP intends to ensure that ETC transactions will be posted to only one account. It is the desire of the GNOEC to replace the existing Host/VPC as quickly as possible.

1.4.6.1 General Schedule Requirements

The following table provides a general schedule for transition consideration. Final schedule with calendar days from NTP will be agreed on by GNOEC and TSP.

Event	Calendar Days from NTP
Notice to Proceed	
Design & Software Development	
Factory Acceptance Test	

1st On-Site Installation
Installation/Commissioning Test
Operational Test
System Acceptance Test
Project Acceptance

1.4.6.2 Transition to New Toll Collection System

Proposals shall include a detailed Toll Collection System (TCS) functional test and implementation plan, including an overall schedule, with an initial transition plan that identifies the implementation and commissioning of all lanes. Detailed data migration requirements from the old to the new system shall be addressed.

As part of the project, the TSP shall provide a detailed Transition Plan for GNOEC approval that addresses all critical elements associated with the installation and implementation of the TCS. The Transition Plan shall, as a minimum, include the operational requirements, interfaces and/or equipment for transitioning to the CPS servers, the installation, commissioning and acceptance of lane equipment, the transition from existing to proposed TCS, and the system acceptance by section where applicable.

The Transaction Plan shall detail the manner in which transactions will be processed through the existing system and new toll system concurrently with regards to the following:

- CSC Account Management
- VPC processing
- Financial audit and reconciliation
- Image review
- LPN lookups
- Downloading of tag files

The TSP shall design, test and install the Toll System Host, including any redundant systems, in location(s) to be designated by the GNOEC. The Toll System Host and redundant systems shall be operationally tested and commissioned prior to commencing operational and commissioning tests for lane equipment systems.

Following the successful commissioning of the Toll System Host, the TSP shall commence with the installation and commissioning of the new lanes at the toll plaza. Once the initial lane has been brought online, the GNOEC System shall have two systems in revenue collection mode. Following successful commissioning of the initial lane, the remainder of the existing lanes would be converted.

1.4.7 Installation Requirements

The installation requirements are defined in this section. The TSP shall submit an installation plan that identifies their approach to installation and covers the major elements of the installation.

1.4.7.1 Installation Program

The TSP is responsible for the installation of all TCS equipment provided under this Contract. The TSP shall submit to the GNOEC for review and approval an Installation Plan.

The installation plan shall be the master document from which the elements of the system shall be installed. The installation plan shall include and define, at a minimum, the following items:

- The proposed installation schedule, detailing phases and/or installation segments. Once the baseline schedule is approved by the GNOEC, monthly updates identifying all schedule changes and work progress in the form of percentage completions shall be submitted to the GNOEC.
- The minimum resource allocation requirement for any installation phase or segment.
- How the Contractor shall manage delivery and staging of equipment to be installed.
- The order that equipment items are to be installed with estimated durations.
- Any special or unique installation requirements.
- A detailed component list and how each item version number and serial number shall be recorded for each installation configuration.
- Organization Chart defining key personnel -This chart shall be approved by the GNOEC or its designated representative. Any changes to the staff identified on the chart or responsibilities shall be submitted to the GNOEC in writing for GNOEC approval

The TSP shall manage, schedule and attend weekly installation meetings during the installation phases of the project. The TSP and any sub-Contractors shall ensure that the appropriate personnel are present at these meetings, who can represent the TSP's interest and provide the information necessary in a meaningful manner. The TSP shall schedule a time when the appropriate GNOEC personnel are available. The TSP shall prepare and distribute a meeting agenda at least 48 hours prior to the scheduled meeting. The meeting agenda shall consist of those items pertaining to the installation and schedule for the previous and current week's installation efforts. All issues recorded during the installation activity for the week shall be discussed and resolved. At this meeting, the TSP should also be prepared to address any issues or questions by the GNOEC or their representative.

1.4.7.2 Installation Scope of Work and Requirements

The TSP is responsible for procurement, installation, terminating and testing all equipment provided by the TSP as part of the Replacement TCS under this Contract.

1.4.7.2.1 Compliance to Standards

The TSP shall adhere to all installation standards, applicable laws, ordinances and codes as required by the NEC, the GNOEC, government agencies such as LaDOTD, MUTCD, AASHTO, IEEE and OSHA) including but not limited to electrical, seismically, or environmental. All installations shall meet such requirements. The TSP shall be responsible for all costs associated with any permits, plan reviews and inspections. It shall also be the TSP's responsibility to procure all documentation required to install and adhere to the proper installation standard, law, ordinance or codes.

1.4.7.2.2 Toll System Host Installation

All computers shall be installed in the designated location within the building or structures as prescribed in the drawings submitted by the TSP and approved by the GNOEC or their representative. The TSP shall take into consideration the environmental state required in order to maintain the TSH.

The TSP is responsible for:

- Installation of any equipment cabinets, TSH and redundant servers, workstations, printers, security systems, communication equipment and other peripheral equipment needed to support the Toll Collection System. TSP shall evaluate the current available equipment and infrastructure for reuse when applicable and agreed upon by GNOEC.

1.4.7.2.3 Roadside Toll Collection System Installation

The TSP shall supply all personnel, tools, materials and equipment required to perform installation of the Roadside Toll Collection System. This requirement extends to all materials and supplies required for complete installation of the system. It also includes all equipment and vehicles required for overhead installation of and work on gantries; toll booths; specialty equipment for preparation and saw-cutting of loops as required, and the provision of test vehicles to adequately test the installed system in accordance with the approved test plan.

Where the TSP is providing sub-system components manufactured by a third-party vendor, the TSP shall ensure that all such components are installed in accordance with manufacturer's installation guidelines. In addition, The TSP shall provide such sub-system manufacturer access as is necessary to ensure the proper installation and operation of their equipment at no additional cost to the GNOEC.

No.	Roadside Toll Collection System Installation Requirements
RI-1	The TSP shall furnish and install all connecting conduit, junction boxes, and pull boxes that needs to be added for Roadside installation. Existing conduit may be reused as agreed upon with GNOEC.
RI-2	The TSP shall furnish and install all wiring for all roadside equipment and connections to the enclosures. This includes the proper termination of all power, communication, and RF cables and/or wiring (copper or fiber optic) required to connect the individual components into a fully operational system.
RI-3	The TSP shall furnish and install all utility shelters, cabinets and enclosures required for the roadside electronics, including environmental control devices and UPSs, as required. Existing cabinets and enclosures may be reused as agreed upon with GNOEC.
RI-4	The TSP shall furnish and install all lane controller computers (hardware and software) into the toll booth cabinet or computer room (location to be decided during the initial meetings with GNOEC.)
RI-5	The TSP shall furnish, install and calibrate the Automatic Vehicle Classification (AVC) Systems equipment, including roadside equipment (loops, cameras, radars), either overhead mounted equipment or in pavement equipment, as specified. The installation includes all materials, equipment and supplies required for saw-cutting, wiring and sealing of loops in the roadway or conduit and mounting equipment for overhead equipment.

No.	Roadside Toll Collection System Installation Requirements
RI-6	The TSP shall furnish and install the Automatic Vehicle Identification (AVI) equipment, including antennas, readers, related equipment, cables, and any support brackets required.
RI-7	The TSP shall furnish, install and align the Digital Video Auditing System (DVAS) equipment, including cameras, DVAS illumination, and any video controller equipment, sensors or specialty equipment associated with the DVAS.
RI-8	If authorized, the TSP shall furnish and install the Image Capture System (ICS) equipment, including cameras, ICS illumination, and any video controller equipment, sensors or specialty equipment associated with the ICS.
RI-9	The TSP shall power up and provide a field check out/commissioning/installation acceptance test of all systems, to be witnessed and approved by the GNOEC or its designated representative. The TSP shall provide a completed installation checklist.
RI-10	The TSP shall perform tuning and testing of the AVI System, as further described in full accordance with manufacturer's guidelines.

1.4.7.2.4 TCS Installation Checklist

The TSP shall develop an installation checklist. This checklist shall become a part of all work processes during the installation of the Toll Collection System. The checklist shall be a document detailing those items required for the installation crew to complete the installation process of a phase of segment. An attested copy of the checklist shall be provided to the GNOEC after the completion of the installation activity for each lane at each tolling location. The TSP is also responsible for conducting an inspection of all installations and certifying the installation work.

1.4.7.2.5 Electrical Work

Electrical work to be performed shall include, but not be limited to, the following general items of work:

- All electrical work shall utilize new equipment, conduit, junction boxes, conductors and cables, etc.
- All new conduit shall be rigid aluminum and securely attached to existing structures with new supporting means as required. Conduit shall be routed above the existing canopy and shall be routed through new core drilled holes in the canopy to each toll booth. Adequate vertical conduit support shall be provided. All canopy, building and toll both penetrations shall be properly sealed to prevent water intrusion. All conduit, junction boxes, equipment, etc. shall be mounted such that it is not exposed to damage and shall not reduce the effective clearance beneath the existing canopy.
- The existing electrical distribution at the size offers 208Y/120V 3-phase power from various existing 1-phase 3-wire and 3-phase 4-wire panelboards. The Proposer shall obtain adequate electrical service for the new toll system and shall provide new electrical distribution equipment as required to provide a complete and operational toll system.
- Install new conduit, junction boxes and terminate new cable and conduit attachment devices. Conduits, manhole frames, metallic junction boxes and other conductive items shall be bonded to the grounding system in conformance with GNOEC and LaDOTD Standard Specifications and the NEC.

- All electrical work shall be performed in accordance with the applicable regulations. Appropriate NEC compliance shall be adhered to with all electrical articles for installation pertaining to wiring, enclosures, and other electrical equipment in hazardous locations.
- UL labels shall be provided for all electrical panel boards, enclosures, and accessories.
- All electrical equipment must be inspected prior to installation for defects that could damage the equipment or harm personnel. Any equipment found to have defects shall not be installed but replaced with an acceptable replacement.
- All electrical equipment shall be properly grounded for safety. Most equipment shall be furnished with grounding pads or grounding lugs. All ground connections shall be cleaned immediately prior to connection. The TSP shall provide all grounding material required but not furnished with the equipment.

1.4.7.2.6 Work Standards and Requirements

Lane equipment installation shall be scheduled so as not to disrupt or delay traffic during the installation process. No installation work shall occur one (1) day prior to or after a holiday recognized by the GNOEC. In addition, lane closures shall be limited to only one lane closed at any one time. The TSP shall schedule work around peak traffic movement times. In the event that extended lane closures are required, closures will have to be accomplished during night hours. All work schedules, traffic control and lane closure plans shall be submitted and approved by the GNOEC.

All equipment installation shall be performed to an approved set of plans, which has previously been submitted and approved by the GNOEC.

The TSP shall provide project management and oversight of all work performed. At all times when installation work is taking place, the TSP shall have an individual designated as Site Manager on site to supervise the installation. The TSP shall install all equipment to the highest standards, using experienced and knowledgeable personnel

For all installation work, the TSP shall be required to identify the project superintendent, company safety officer, and their certified traffic control supervisor. During installation periods, the TSP shall be required to provide a list of addresses and telephone numbers of personnel who may be reached in case of emergency during hours when no work is to be performed.

1.4.8 Project Management System

The TSP shall provide a Project Management Plan that shall be employed for the project. The Plan shall be sufficiently detailed to enable the GNOEC to review and ascertain that the TSP has the necessary management, staff and controls in place to meet the specifications of these technical requirements. This System shall enable the GNOEC to monitor the progress and quality of the work performed on the Project.

1.4.8.1 Project Schedule

The TSP shall develop a detailed Project Implementation Schedule that lists all tasks related to the design, testing, installation and deployment of the Toll Collection System in Microsoft Project format (Office 2010 or above). The Project Implementation Schedule should identify all milestones and events starting with the Notice to Proceed through the date of Final Project Acceptance. This Project Schedule shall form the basis for all subsequent schedules and updates throughout the duration of the Project. The Project Implementation Schedule shall be baselined upon approval and the Contractor is required to update the Project Implementation Schedule on a bi-weekly basis and distribute to the GNOEC.

1.4.8.2 Monthly Report

At a minimum, monthly progress meetings shall be held on or about the 20th of each month at a location or virtual designated by the GNOEC. Three working days prior to the meeting, the TSP shall submit monthly progress reports to the GNOEC. The reports shall include the following documents, when applicable:

- A written report outlining the labor, materials and the percentage of work performed for each task in the Project Implementation Schedule. Comments shall be included, where appropriate.
- The written report shall include an analysis of all critical path tasks; potential risks associated with them and any contingency plan to circumvent a delay to those items.
- An updated Project Implementation Schedule describing proposed changes from the original approved Project Implementation Schedule, if any, and showing progress from the previous month for discussion purposes. If no Project Implementation Schedule change has been requested, the TSP shall so state.
- A progress payment request, if applicable, with the monthly progress report. Progress payment requests received at other times shall be held until the following month.
- If necessary, change order requests for Project Implementation Schedule or monetary changes to the Contract shall be submitted with the monthly progress report.
- A summary of the time devoted to the Project by each Key Staff for the immediately preceding month.
- Change order work requests not relating to the Project Implementation Schedule or monetary changes may be submitted for review at any time during the month.

1.4.8.3 Project Management Plan

The TSP shall submit a Project Management Plan to the GNOEC for review and approval. The Project Management Plan shall describe how the TSP plans to implement and manage the project including staffing, scheduling, communication procedures for controlling all correspondence, submittals and other communications between the TSP and the GNOEC. Since the TSP has to work with other vendors on this Project, the communications among the teams are very critical for the success of the Project.

The Project Management Plan shall include:

- A description of the management and organization of the program, an organization chart, identification of Key Staff and their responsibilities and identification of the resources to be used in fulfilling the requirements of the contract.
- A description of the planning and reporting methods to be utilized, both for use within the Contractor's staff and externally to the GNOEC.
- What day-to-day operations, general issues, and problems shall be communicated to the GNOEC.
- How the project schedule and performance shall be reported and tracked for installation activities and transition activities.
- How the TSP shall communicate with other Vendors on the project.

The Project Management Plan should include a section that addresses the following:

- **Correspondence –** Correspondence shall be identified as to originator and designated receiver.
- **Document Control –** The TSP shall manage the Project correspondence through Document Control software to which the GNOEC shall be a user and have access.
- **Submittals -** All submittals shall be submitted as an enclosure to the TSP's submittal letter. Each submittal letter shall be limited to a single subject or item. The TSP's letter shall identify the letter itself, Contract Number, Contract Name, and Subject of the submittal.

- **Contract Number and Contract Name -** All items of correspondence, submittals and documentation shall contain the Contract Number and the words “The GNOEC Toll Collection System Project 829".
- **Information --** No party shall be entitled to rely on any information unless it is in writing and received from the other party’s Designated Representative.
- **Change Orders --** Any change orders from the GNOEC shall be in writing and shall be executed by one of the GNOEC’s Designated Representatives and one of the TSP’s Designated Representatives.
- **Status** – The GNOEC or the GNOEC’s Designated Representative may inquire of the TSP as to the status of the Project.
- **Access to Contractor Key Staff** – The GNOEC or the GNOEC’s authorized representative who is knowledgeable in the field of work, shall have unlimited access to the Key Staff during the TSP’s performance of this Contract.

1.4.8.4 Documentation

The TSP is required to provide various user, installation, and training documentation. All documentation provided under this Contract shall meet the requirements described below.

1.4.8.4.1 General

Detailed and accurate documentation is required to ensure that the GNOEC can operate and maintain the Toll Collection System. Detailed documentation shall enable the GNOEC to understand the system thus resulting in better performance of audit and reconciliations. It also shall assist the GNOEC in making better, informed decisions on any required system changes or revisions to Business Rules.

The TSP shall provide standard commercially available documentation for third-party provided hardware, software, maintenance materials, and support documentation provided under this Contract. The TSP shall provide comparable documentation for all other items under this Contract.

The Contractor shall furnish, install and maintain, in current updated condition, the following ‘Primary Set’ of all documentation required under this Contract for equipment provided by the TSP. This material shall be provided in its commercially available form or a comparable form and placed in racks or shelves to be retained at GNOEC Offices for the duration of this Contract. Additionally, a soft copy of these documents with updates to them if available shall be provided to the GNOEC. An acceptable soft copy format is the Microsoft Office Suite formats for prepared documentation as listed below. Soft copies of manuals shall also be provided in unsecured Portable Document Format (.pdf). All updated documents shall show the revisions and also include a version of the clean document.

- Ten (10) hard copies and one (1) electronic version of each hardware manual for all hardware supplied under this Contract. This set shall include the manufacturers’ manuals for every assembly as provided by each manufacturer.
- One complete set of software manuals for each version of computer system supplied under this Contract. This set shall include the operating system, utilities, application software, communications software and any software purchased by the Contractor for development under this Contract.
- Ten (10) hard copies and one (1) electronic version of all Users Manuals for the various Systems provided under this Contract such as but not limited to a Maintenance Service Manual, TCS Operations Manual, DVAS Operations Manual, Audit Manual, and System User Manual.

1.4.8.4.2 Compliance Matrix

As part of the proposal submission, the TSP shall provide a Contract Compliance Matrix for evaluation by the GNOEC. The Compliance Matrix shall provide a single checklist for all Contract requirements for tracking status and progress on the requirements of the Project. The level of detail expected shall include deliverables, testing requirements,

installation requirements and any other specific requirement of the Contractor relative to this Project. Within 30 days of the Notice to Proceed, the TSP shall provide an updated version of the Matrix to update with any changes during final negotiations.

Beyond the specific requirements of the Project, the TSP may also include system parameters that exceed the requirements. For example, the TSP may choose to implement a product or service that exceeds specifications or offers functionality beyond the requirements. This document provides opportunity for the TSP to demonstrate opportunities for further innovation beyond the base. The Contract Compliance Matrix shall be updated regularly and made available upon request during the project as requirements are either in progressed or completed.

1.4.8.4.3 Testing Documentation

The TSP shall submit a Master Test Plan and the appropriate detailed test procedures for each test used to verify the proper operation of the system to the GNOEC for approval. Test procedures shall detail the step-by-step process for validating the requirements of the Contract.

1.4.8.4.4 Manual Requirements

Various manual shall be provided as described below to allow the GNOEC to operate the Toll Collection System. New manuals provided under this Contract that are not standard commercial catalogs or manuals shall meet the following requirements. Draft copies of all manuals shall be submitted to the GNOEC for approval, prior to final printing. Whenever possible, all data shall be printed on 8-1/2” x 11” sheets, foldouts should be 11” x 17”.

All manuals prepared for the GNOEC under this Contract, shall be produced in a Microsoft Office Suite product. Any special software required to produce scalable typefaces or other graphs shall be provided by the Contractor as part of the documentation for the manuals.

The TSP shall provide ten (10) hard copies and one (1) electronic version of all hardware/software and user manuals identified in the following requirements and for equipment and software provided to allow the GNOEC to operate the Toll Collection System.

No.	Manual Requirements
MAN-1	**Audit Manual** - This manual shall detail all procedures used to audit the System. It shall also include the reconciliation of transactions and revenue within the TCS. A complete description of all audit procedures and a non-technical description of the screens, reports, and functions shall be provided. The manual shall contain illustrations and pictorial diagrams to demonstrate the step-by-step operations required for performing the audit functions. Reports included in the submittal shall have correct and accurate data and this manual shall be used to train the auditors.
MAN-2	**Toll Collector User Manual -** The Contractor shall provide Users Manuals for the Toll Collectors. The user manuals shall be used by the GNOEC staff to operate the Toll Lane. The manual shall include screen images detailing the step-by-step activities that need to be completed in order to fulfill the specific functionality in operating the Toll Lane
MAN-3	**TSH User Manual -** This manual shall detail the use of the System application software that serves the Toll System Host that includes the host, MOMS, Toll Supervisor and DVAS functions as identified in the technical requirements. The manual shall contain illustrations and pictorial diagrams to demonstrate the step-by-step operations required for performing functionality and

No.	Manual Requirements
	navigating the screens. All usage of all reports and the data fields shall be clearly explained. This manual shall also be used for training purposes.
MAN-4	**Maintenance Service Manual -** This manual shall be prepared for properly trained technical personnel (reasonably skilled technician with experience in electrical and electronic maintenance but not necessarily toll systems) assigned to the maintenance of the hardware and software within the Toll Collection System. This manual shall include a general description, theory of operation, operator instructions, mechanical functions, installation, test and troubleshooting procedures, preventive and corrective maintenance procedures and schedules, diagrams, schematics, layouts and parts lists required to service each piece hardware supplied under this Contract. Standard service manuals for commercial products used for the equipment shall be acceptable if they contain sufficient information to service the equipment. Large-size logic diagrams and mechanical assembly diagrams do not have to be reduced or incorporated into the manuals if these drawings are provided with the manuals. Actual equipment maintenance images with callouts needs to be provided where there is no other maintenance documentation.
MAN-5	**System Administrators Manual -** This manual shall serve as a trouble shooting guide for a system administrator and shall include and the programs and processes that need to be monitored to ensure the system is operational. It shall allow the administrator to confirm the completion of scheduled jobs, and investigate and identify problems. A listing of all the error logs and their purpose shall be included in the manual.

1.4.8.4.5 As-Built Documentation

The TSP shall provide to the GNOEC a complete set of as-built drawings, which shall be delivered as four (4) full-size and ten (10) half-size complete sets of prints, and shall deliver the same in electronic format, for all equipment furnished under this Contract. The sets shall include, but not be limited to, all schematics, logic diagrams, layouts, wiring diagrams, assembly drawings, installation diagrams, cable schedule, parts detail drawings for all mechanical parts designed or modified under this Contract and interface details so as to provide a complete record of the as-built status of the equipment.

Drawings contained in standard catalogs and manuals for commercial products do not have to be reproduced as part of the as-built drawing sets. All drawings for revisions to standard commercial assemblies or components for the equipment shall be included in the as-built drawing set. The as-built drawing set for the Toll Collection System architecture shall be provided.

All As-Built drawings shall contain a table of contents that shall include a listing of all drawings with headings for drawing number, drawing title, revisions number and date, and the type of material list, wiring diagram, wire list, specification control drawing or similar categories.

1.4.9 Training

The TSP shall provide comprehensive training for the operation and maintenance of the Toll Collection system. The Contractor shall develop and present for the GNOEC review and comments, the initial system training manuals and training materials, including training for TSH, Toll Collection, DVAS operations, MOMS, system administration, audit and reconciliation, system reporting, and maintenance.

Training shall apply to all areas of the Toll Collection System. The Contractor shall submit a Training Plan and Schedule to include System Operations, Maintenance, Administration and Disaster Recovery. The Training Plan shall detail the scope of each training session by providing detailed content and the duration of each training session, as well as timing, logistics and equipment and materials necessary to conduct hands-on interactive training. The Training Plan shall be submitted to the GNOEC for review and approval prior to the initiation of any training. The GNOEC anticipates up to ten (10) people to receive the training initially, followed by a refresher training six (6) months after the initial training.

1.4.10 Maintenance

The GNOEC shall be responsible for the hardware maintenance of all equipment in the lane and at the plaza. The TSP shall be responsible for supporting the hardware lane and plaza maintenance performed by the GNOEC and the total maintenance of all software aspects of the Toll Collection System including lane and plaza software and TSH.

1.4.10.1 Maintenance Plan

The TSP shall develop a detailed Maintenance Plan that covers all aspects of the maintenance operation. The Maintenance Plan shall be submitted to the GNOEC not less than sixty (60) days prior to commissioning of the any lanes for revenue collection.

The GNOEC shall provide comments on the draft Maintenance Plan to the Contractor within fifteen (15) days of receipt of the Maintenance Plan. It is understood that the Maintenance Plan may undergo multiple iterations before a final document is accepted, however the initial plan must be accepted before the initiation of maintenance services. The TSP is expected to quickly respond to and turn around any changes, comments, or other modifications made by the GNOEC.

The Maintenance Plan shall be geared towards a reasonably skilled technician in the field of electrical/electronic maintenance but no assumptions on previous experience with toll equipment and shall include but not be limited to the following:

- A description of a general maintenance organization required to maintain the Toll Collection System.
- Notification procedures
- Spares inventory management
- Means and methods for monitoring equipment status
- Document control plan
- Equipment through-life support plan
- Preventive maintenance methodology and frequency
- Special tools and test equipment that shall be maintained on site

The Maintenance Plan shall be updated periodically to reflect any changes to the policies or procedures for the maintenance services. A version update sheet shall be included with the Maintenance Plan and the Maintenance Plan on file shall have the most recent version from the configuration management system. Any updates or changes to the Maintenance Plan shall be submitted to the GNOEC for review and acceptance prior to incorporating the proposed changes or updates. No actions shall be taken by the TSP regarding any proposed changes and/or updates without prior written approval by the GNOEC. All proposed changes and updates must be directed to the most current version of the Maintenance Plan.

1.4.10.2 System Administration Services

The TSP shall provide System Administration Services on the Toll Collection System during warranty period to ensure that it is performing, and shall continue to perform, at a satisfactory level 1 year after system acceptance. System Administration Services shall include the monitoring of processes as well as the database. This shall include but is not limited to:

- Any maintenance, daily, weekly or periodic, required for maintaining the system at operational levels (for example: purging old files, adding new tables or directories, etc.)
- Retrieval of data manually, if required
- System shutdown and re-start, if required, to keep the system operational
- Re-establishment or re-installation of system files, programs and parameters, as required, following a failure or damage to the system.
- Investigation and analysis of anomalies
- Monitoring of programs to ensure they are running properly
- Monitoring of error and system logs
- Monitoring of files and database for storage capacity
- Software or firmware Fs, as required
- Verify the successful download of tag status files daily and report the status
- Monitoring all lanes and other communication protocols Verify on a daily basis that transactions are being generated in the lanes and these transactions are being sent appropriately to the TSH and report the status
- Checking for transaction buffering at the lane
- Network monitoring and verification of connectivity to various devices within the TCS
- Maintenance of up-to-date software backups (all system software and data)
    - If Applicable, ensure database table purging has occurred according to schedule
    - If applicable, verify daily VES backups have taken place and report the status
- Verify MOMS is receiving and processing system events and reporting the correct status

System Administration Services and preventive software maintenance shall be performed during the Contractor's normal course of business.

1.4.10.3 Warranty Program

The TSP shall be responsible for the development, implementation, and administration of a warranty program for all TSP provided hardware, TSP developed software, and third-party software. The warranty period for all new lane and Toll System Host equipment furnished under this procurement shall be a period of three (3) year, commencing on the date of Project Acceptance. The warranty shall include all components installed per the Toll Collection System. The TSP shall maintain warranty records and shall review software discrepancy and available patch reports to determine if the software requires upgrading.

The TSP shall take all reasonable and prudent steps to ensure that all hardware and third-party software used by the Toll Collection System is supported by the vendor and all warranties remain in effect. The TSP shall make every

effort to ensure that warranties are honored by vendors. This shall include the identification and coordination with GNOEC staff on the second sources for all equipment.

1.4.10.4 Cooperation with Other Vendors and Providers

The TSP may be required to work with or associate with other vendors, consultants or providers in order to provide a fully integrated and operational system. The TSP shall cooperate to their fullest extent with any other vendor, consultant or provider in order to ensure that the Toll Collection System and other functional elements of the Toll Collection System do not conflict or cause any deterrent in capability or service to the traveling public or the GNOEC.

APPENDIX A TO REQUEST FOR PROPOSALS NO. 2025-001

In addition to the items listed in Part II and III of this RFP, the Technical Proposal shall contain the following information and use the following forms:

A.1. Approach to Scope of Work and Technical Requirements

Proposers should describe the technical approach to the Project and how the Proposer will plan for and accommodate each aspect of the Project Scope of Work and Technical Requirements. The Proposal should address the following:

A.1.1 In-Lane and Plaza

1. Discuss Proposer's technical approach to satisfying all of the functional requirements for the in-lane system architecture. Be sure to identify all lane equipment and software, including each of the subsystems.
2. Describe clearly and with the aid of diagrams and flow charts the proposed in- lane system transaction processing logic. Explain how the Proposer's System processes and frames vehicle transactions. Provide a diagram that identifies framing logic, timing and event processing.
3. Detail the proposed optional in-lane violation enforcement system and the capabilities that are provided at the lane level.
4. Detail the proposed logic for transmission of the Transponder Status List (TSL) from the plaza/host to the toll zone controllers.
5. Detail the functionality provided by any required plaza systems.

A.1.2 Central Processing System

1. Discuss Proposer's technical approach to the Central Processing System that includes Host, MOMS, CSC, and VPC sub systems.
2. Discuss Proposer's Host system functionality, configurability and reports and architecture as it relates to other CPS systems. Detail the process for reconciling all transactional and financial data.
3. Discuss Proposer's Customer Service Center system including account management, functionality, configurability and reports.

4. Discuss Proposer's Violation Processing Center system including violation account management, integration with the Customer Service Center system, functionality, configurability and reports.
5. Discuss Proposer's violation processing system and the capabilities that are provided for OCR of license plates and fingerprinting of vehicles. Describe the methods used to ensure the highest levels of accuracy and automation, including the proposed OCR steps at the lane and/or host.
6. Discuss the Proposer's approach to functions relative to interactions between the CSC and VPC to maximize coordination and customer service.
7. Discuss the Proposer's Maintenance-On-Line Management System (MOMS) and explain how equipment and process failures of the TCS will be tracked through MOMS in real time. Further explain how, through the use of MOMS and established procedures, GNOEC maintenance would address and rectify issues/problems.
8. Discuss Proposer's approach to satisfying the reporting requirements of the Project, highlighting any specific and unique features of Proposer's reporting system relating to performance reporting and other types of reports.

A.1.3 Communications and Security

1. Provide a description of bandwidth requirements and a diagram of the proposed System network architecture/fiber optic network requirements.
2. Discuss any shortcoming and proposed remedies regarding the current network system and architecture that are included in your Proposal.
3. Discuss how the proposed solution meets or exceeds the security requirements within the Technical Specification, including:
    - Encryption
    - Network Configuration
    - Payment Card Industry Compliance
    - Database
    - GUI Design
    - Human Factors supported by the System

A.1.4 Installation, Testing and Performance

1. Discuss the installation process and how Proposer intends to meet requirements identified within the Scope of Work and Technical Requirements. Discuss Proposer's plans and ideas for coordination of installation with the existing systems integrator, manual toll collection and all required third party interfaces.

2. Discuss Proposer's approach to testing and system acceptance, as described in Scope of Work and Technical Requirements. Discuss, including Proposer's overall test plan approach, how system testing is conducted, and specifically what tests, test functions, and test methods are being proposed to ensure system meets the requirements of the Contract.
3. Discuss Proposer's adherence to the performance requirements and explain how Proposer will meet or exceed key specific performance requirements of the Project. Provide, where available, examples of how performance requirements were met or exceeded on other similar projects and how the performance was measured.

A.2. Project Schedule and Project Plan

1. Provide a Project Implementation Schedule in MS Project format, following the parameters outlined in the Scope of Work and Technical Requirements. Proposers should also specifically address in the written Proposal the approach for delivering the System in the timeframe specified, highlighting the major challenges and issues and key areas of Proposer's approach to meeting the schedule.
2. Provide a detailed description of the Project Management Plan that demonstrates how the Proposer plans to implement and manage the Project including staffing, scheduling, communications, controls, and reporting. Identify the key elements of the Project Management Plan.
3. Provide a description of Proposer's Quality Assurance and Control Plan that summarizes Proposer's program for quality assurance from design and development through production, software development, installation, testing, warranty, and maintenance. Highlight key elements of the Proposer's Quality Assurance/Quality Control (QA/QC) program and what quality certifications and processes Proposer would put into place to ensure they are implemented as planned.

A.3. Approach to Maintenance and Warranty

Describe proposed approach to address maintenance requirements.

1. Include a detailed description of quantity of staff needed to maintain the system.
2. Highlight major elements of the in-lane and back-office maintenance requirements.
3. Proposers should also identify elements of the Proposal that will ensure ongoing delivery of a quality maintenance program.
4. Proposers should discuss key elements of both software and hardware warranty.
5. Describe your approach to providing Toll Collection System software Warranty and Maintenance. Define what basic software maintenance is included in the warranty period and further what upgrades and enhancements are to be included in the warranty period. Additionally, describe specifically what upgrades or enhancements would not be included in the warranty period and would be subject to a change order to the Contract.
6. Describe your proposed terms and conditions for ownership or licensing of the System Software. Contractors should be aware that the GNOEC's ability to own, operate,

maintain and adapt the Software beyond the base requirements will be an evaluation criteria. Specifically address:

What Software, if any, will be provided to the GNOEC with a perpetual, royalty free, non-exclusive license to allow the GNOEC to use, operate, translate, reproduce, modify (including potential modification and/or maintenance by a third party), and adapt for its own purposes upon any event of termination, cancellation or conclusion of the Contract?

What System Software, if any, including that developed exclusively for the GNOEC will be owned by the GNOEC?

A.4. Corporate Qualifications and Demonstrated Experience

Using Form A: Vendor and Subcontractor Information Statement, provide the requested information for the primary Vendor and all subcontractors. Use additional pages as necessary to cover all subcontractors.

Using Form B: Vendor Referenced Projects, describe the primary Vendor's experience in completing three (3) similar implementation Projects and one (1) project for each major subcontractor. Experience with cash and electronic toll collection environments; the implementation of VES systems; CSC, VPC, and toll system maintenance will be considered in the evaluation.

At the Vendor's discretion, one (1) implementation project currently being performed by the Vendor may be submitted for consideration as one (1) of the references. Preference will be given to projects that have successfully been completed by the Vendor.

Using Form C: Vendor Past Performance, the Vendor shall detail any litigation, claims, dispute proceedings and arbitration related the execution of any past or current contract for the development, implementation, installation or maintenance of a toll system.

A.5. Project Organization and Key Staff Qualifications

- The Proposer shall provide organizational charts for the project. Key staff shall be identified by placing a key symbol next to their name. Key staff, at a minimum, shall be the positions listed below.
- Identify all key personnel and at least one level below key personnel (if applicable.
- The Proposer shall provide the city and state of the person's primary residence while performing their tasks on this project.
- The Proposer shall note the % of the time that the person is dedicated to this project.
- Identify roles and staff of the GNOEC on the organization chart.

Describe the experience and provide resumes (not to exceed two (2) pages per team member) of Proposer's key Project team members, with the stipulation that no changes or substitutions of any of these key personnel will be allowed without prior written approval of the GNOEC.

Key Staff Positions (Required to be identified) and Minimum Requirements:

a) Project Principal: Shall have been full time employee of the Proposer for at least one (1) year and have a minimum of five (5) years experience in the toll/revenue collection industry, with three (3) years of senior management responsibility for major projects. GNOEC preference is for senior management responsibility on at least one (1) project of $5 Million or more in value.

b) Project Manager: Shall have at least five (5) years' experience in the toll/revenue collection industry, of which the last three (3) years shall have been as project manager of toll collection projects of a similar nature to this Project. GNOEC preference is for project manager to have experience on at least one (1) project of $5 Million or more in value.

c) Quality Assurance Manager: Shall have been a quality assurance manager for at least three (3) years on similar projects to this Project. GNOEC preference is for Quality Assurance Manager to have experience on at least one (1) project as quality assurance manager of a toll collection project of $5 Million or more in value.

d) Assistant Project Manager: Shall have at least three (3) years' experience in the toll collection/revenue collection industry. GNOEC preference is for the Assistant Project Manager to have at least two (2) years' experience on project management work on toll collection projects.

e) Technical (Software) Manager: Shall have a minimum of five (5) years of software development management experience, including at least two (2) years' experience in management of toll/revenue collection software design and development projects.

f) Installation Manager: Shall have at least five (5) years of experience in the toll/revenue collection industry, with at least three (3) years' experience in a responsible installation management role on toll collection projects.

In addition, using Form D: Key Staff References (not to exceed two (2) pages per reference form and placed immediately following the corresponding resume) identify references for key staff members associated with projects of similar size, functionality, and dollar value.

A.6. Bill of Materials

Provide a preliminary Bill of Materials (BOM) in the Vendor's standard form.

A.7. Product Cut Sheets

If available, provide cut sheets for all off-the-shelf equipment and products that are included as part of the Proposed System.

FORM A: VENDOR and SUBCONTRACTOR INFORMATION STATEMENT

VENDOR and SUBCONTRACTOR INFORMATION STATEMENT

VENDOR shall use this (or a facsimile) to document information for the prime VENDOR and all SUBCONTRACTORS. Please copy this form as needed to comply with the requirements outlined in the RFP.

Prime VENDOR's Name:_____

	PRIME VENDOR	SUBCONTRACTOR #1
Legal Name of Company		
Company's FEID Number		
Company Contact Name		
Company Address		
City, State, Zip Code		
Company Telephone No.		
Company Fax Number		
Company E-mail address		
Legal Name of Principal(s)		
Address of Principal(s)		
City, State, Zip Code		
Telephone Number of principal(s)		
Fax Number of Principal(s)		
E-mail address of Principal(s)		
Corporate Number (if applicable)		
License Number		
Status of License or Representation		
Work to be Performed		
SB/DBE Certification # & Exp. Date		

This Prime & Subcontractor Information Statement will become a part of the Contract Documents. Changes made to this Subcontractor Information Statement must be submitted in writing to the GNOEC for approval prior to that Subcontractor performing the Work.

PAGE 2: PRIME & SUBCONTRACTOR INFORMATION STATEMENT

	SUBCONTRACTOR #2	SUBCONTRACTOR #3
Legal Name of Company		
Company's FEID Number		
Company Contact Name		
Company Address		
City, State, Zip Code		
Company Telephone No.		
Company Fax Number		
Company E-mail address		
Legal Name of Principal(s)		
Address of Principal(s)		
City, State, Zip Code		
Telephone Number of principal(s)		
Fax Number of Principal(s)		
E-mail address of Principal(s)		
Corporate Number (if applicable)		
License Number		
Status of License or Representation		
Work to be Performed		
SB/DBE Certification # & Exp. Date		

This Prime & Subcontractor Information Statement will become a part of the Contract Documents. Changes made to this Subcontractor Information Statement must be submitted in writing to the GNOEC for approval prior to that Subcontractor performing the Work.

FORM B: VENDOR REFERENCED PROJECTS

VENDOR REFERENCED PROJECTS

VENDOR shall use this (or a facsimile) to clearly show how VENDOR meets the requirements set forth in the Proposal Requirements for project experience. Each reference provided may be contacted to determine the VENDOR's ability to meet the Proposal requirements. Please copy this form as needed to comply with the requirements outlined in the RFP.

VENDOR's Name:_____

Reference Project Number: ____ of ____

Reference Project Name:	
Reverence Project Customer:	
City:	State:
Phone Number:	Fax Number:
Project Manager:	
Project Manager E-mail:	
VENDOR's role on project and years of participation (mm/dd/yy to mm/dd/yy)	
Project location, scope, cost, start / end dates:	
Operational functionally, number of lanes / plazas, revenue collected, etc.:	
Relevant equipment and systems used:	
Comparison to the Scope of Work for this procurement:	
Installed system performance:	
Key Personnel involved and their role, who are also proposed on this project:	

_____Reference Response (For GNOEC Internal Use):

FORM C: VENDOR PAST PERFORMANCE

VENDOR PAST PERFORMANCE

VENDOR shall use this (or a facsimile) to document all litigation, claims, dispute proceedings and arbitration as required by Proposal Requirements for past experience. Please copy this form as needed to comply with the requirements outlined in the RFP.

VENDOR's or SUBCONTRACTOR's Name:_____

Project/Issue	Owner/Agency That Initiated Action	Resolution/Outcome	Is Unresolved or Action Outstanding?	Current Owner Contact Name, Telephone & Fax Numbers

Liquidated Damages:

Project Name	Cause of Delay(s)	Amount Assessed	Describe Outstanding Damage Claims by Any Owner	Current Owner Contact Name, and Telephone & Fax Nos.

Termination for Cause:

Project Name	Describe Reason for Termination	$ Amount Involved	Current Owner Contact Name, Telephone & Fax Nos.

Disciplinary Action:

Project Name	Describe Action Taken	Current Owner Contact Name, Telephone & Fax Nos.

FORM D: KEY STAFF REFERENCES

KEY STAFF REFERENCES

VENDOR shall use this form to clearly show how VENDOR meets the requirements set forth in the RFP for each key project team member. Each reference provided may be contacted to determine the respondent's ability to meet the Scope of Work and Technical Requirements of this procurement. Copy this form as needed to comply with the requirements of the RFP and the number of references cited.

Key Project Team Member _____

Proposed Position _____

Reference Company Name:		
Address:		
City:	State:	Zip Code:
Phone Number:	Fax Number:	
Project Manager:		
E-mail:		
Number of total years' experience of Key Team Member in similar role to one proposed for this Project:		
Reference Project:		
Key Staff Team Member Role on Project, including dates of participation and job description:		
Project location, scope, cost, start / end dates, etc.:		
Operational functionality, number of lanes plazas, revenue collected, etc.:		
Systems implemented that are relevant to this procurement (Customer Service, Violation Processing, ETC, Cash and Manual In-Lane Systems)		

_____Reference Response (For GNOEC Internal Use):

FORM E: PRICE PROPOSAL INSTRUCTIONS AND FORMS

Note: The Price Proposal form is provided in a separate file as an Excel spreadsheet.

Proposers shall complete the Price Proposals in accordance with the following instructions:

1. Proposers shall submit their Price Proposals on the Price Proposal form included in this exhibit. Proposals should be placed in an envelope and sealed. Price Proposals shall be submitted in the quantity and manner identified in the RFP document.
2. The Price Proposal Form shall constitute the full and complete Price Proposal for compensation for performance of the Contractor's obligations and Work.
3. GNOEC may waive or correct any error appearing in the Price Proposal Forms if the correct amount can be clearly ascertained from the information provided; however, GNOEC is under no obligation to do so. In the event of an inconsistency between the amount stated in numbers and the amount stated in written words the amount stated in written words will control. In the event of a mathematical miscalculation, the correct sum will control.
4. An officer of the Proposer or an individual otherwise authorized in writing by an officer of the Proposer must sign and date each Price Proposal Form.
5. All elements of the Price Proposal must be completed. If zero (0) quantities are included in the Proposal, a zero (0) must be entered into the corresponding cell. In addition, all items identified by GNOEC in the price sheets will be assumed to be included in the Proposal unless such items are specifically identified as an exception in the Compliance Matrix.
6. GNOEC reserves the right to reject Proposals that are not completed in accordance with the instructions set forth herein.
7. The Price Proposal shall be inclusive of all costs, fees and applicable taxes associated with the Project necessary to meet the requirements of the Project as described in the RFP. No price escalation will be allowed above the cost provided on the Price Proposal Forms to complete the Work.

COMPLIANCE MATRIX

All Vendors shall be required to complete and submit the Compliance Matrix, which covers the requirements of the Toll Collection System. If the Vendor does not comply with any requirement(s) of the Scope of Work, the specific requirements(s) to which exception is taken must be identified on the Compliance Matrix and briefly explained in the comment's column. Failure to take exception in the manner set forth above will be deemed a waiver of any objection. Exceptions may be considered during the Proposal evaluation process at the sole discretion of the GNOEC; however, the GNOEC is under no obligation to accept such exceptions.

NON SOLICITATION AFFIDAVIT

STATE OF LOUISIANA

PARISH OF _____

AFFIDAVIT

PROJECT: TOLL SYSTEM REPLACEMENT FOR THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION

BEFORE ME, the undersigned Notary Public, duly commissioned and qualified for the aforesaid state and parish, personally came and appeared:

_____("Affiant"), who after being sworn did depose and state:

1. Affiant is a duly authorized representative of _____("Respondent") which has submitted a proposal to perform Toll System Replacement services for the Greater New Orleans Expressway Commission ("GNOEC") pursuant to a public contract;
2. Respondent has not and will not employ any person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract for the Project with the GNOEC under which Affiant or Respondent , will receive payment, other than persons regularly employed by the Affiant or Respondent whose services in connection with the bridge inspection engineering services for the GNOEC or project or in securing the public contract were in the regular course of their duties for Affiant or Respondent;
3. No part of the contract price to be received by Affiant or Respondent was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the public contract, other than the payment of normal compensation to persons regularly employed by the Affiant or Respondent, whose services in connection with bridge inspection engineering for the GNOEC or project were in the regular course of their duties for Affiant or Respondent.

_____
Signature of Affiant

_____
Printed Name of Affiant

_____
Name of Respondent

SWORN TO AND SUBSCRIBED before me this ____ day of _____, 2025.

_____
Notary Public / Notary I.D. No.

ATTESTATION OF PAST CRIMINAL CONVICTIONS

STATE OF LOUISIANA
PARISH OF _____

ATTESTATION OF PAST CRIMINAL CONVICTIONS

PROJECT: TOLL SYSTEM REPLACEMENT FOR THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION

Appearer, does hereby attest that:

A. No individual who has a minimum ownership interest of ten percent (10%), or more, in the entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any State felony crime or equivalent Federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of Chapter 10 of Title 38, professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39 of the Louisiana Revised Statutes of 1950.

B. If the entity named below is selected and evidence is submitted substantiating that any individual with a minimum ownership interest of ten percent (10%), or more, in the entity has been convicted of, or has entered a plea of guilty or nolo contendere to any State felony crime or equivalent Federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws listed Section A above, and the Greater New Orleans Expressway Commission subsequently rejects the proposal, the entity named below whose proposal is rejected shall be responsible to the Greater New Orleans Expressway Commission for the costs of rebidding, advertising, the increased costs of awarding to another proposer, or forfeiture of the bid bond, if applicable, whichever is higher.

_____ _____

NAME OF RESPONDENT NAME OF RESPONDENT'S AUTHORIZED SIGNATORY

_____ _____

DATE TITLE OF RESPONDENT'S 'S AUTHORIZED SIGNATORY

_____

SIGNATURE OF RESPONDENT'S AUTHORIZED SIGNATORY

SWORN TO AND SUBSCRIBED before me this ____ day of _____, 2025.

_____

Notary Public / Notary I.D. No.

SUBCONTRACTOR AFFIDAVIT

STATE OF LOUISIANA
PARISH OF _____

IDENTIFICATION OF SUBCONTRACTORS

PROJECT: TOLL SYSTEM REPLACEMENT FOR THE GREATER NEW ORLEANS EXPRESSWAY COMMISSION

BEFORE ME, the undersigned Notary Public, duly commissioned and qualified for the aforesaid state and parish, personally came and appeared:

_____("Affiant"), who after being sworn did depose and state:

1. He/She is the and authorized representative of _____ , hereafter called "Respondent."

2. The Respondent submits the attached proposal in response to GNOEC R.F.P. No. _____, for Toll System Replacement.

3. The Respondent hereby identifies the following persons, natural or artificial, who are retained by Respondent at the time the attached proposal is submitted or who are expected to perform work as subcontractors in connection with the Respondent's work for the GNOEC. Respondent shall include specific designations of the tasks to be performed by the subcontractor.

INSERT

4. Respondent hereby acknowledges and agrees that when new subcontractors not previously named are added to the project, they must be promptly identified to the GNOEC. Respondent shall not contract with any other party for furnishing any of the work or services without the express written approval of the GNOEC, which approval shall not be unreasonably withheld.

_____ _____
NAME OF RESPONDENT NAME OF RESPONDENT'S AUTHORIZED SIGNATORY

_____ _____
DATE TITLE OF RESPONDENT'S 'S AUTHORIZED SIGNATORY

_____
SIGNATURE OF RESPONDENT'S AUTHORIZED SIGNATORY

SWORN TO AND SUBSCRIBED before me this ____ day of _____, 2025

_____
Notary Public / Notary I.D. No

EXHIBIT D TO REQUEST FOR PROPOSALS NO. 2025-001

Insurance Requirements

The Contractor shall purchase and maintain for the duration of this Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

A. MINIMUM SCOPE AND LIMITS OF INSURANCE

1. **Workers Compensation**
   Workers Compensation insurance shall be in compliance with the Workers Compensation law of the State of the Contractor's headquarters. Employers Liability is included with a minimum limit of $1,000,000 per accident/per disease/per employee. If work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act, or other maritime law coverage shall be included. A.M. Best's insurance company rating requirement may be waived for workers compensation coverage only.

2. **Commercial General Liability**
   Commercial General Liability insurance, including Personal and Advertising Injury Liability and Products and Completed Operations, shall have a minimum limit per occurrence of $1,000,000 and a minimum general annual aggregate of $2,000,000. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

3. **Automobile Liability**
   Automobile Liability Insurance shall have a minimum combined single limit per accident of $1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles.

4. **Professional Liability (Errors and Omissions)**
   Professional Liability (Error & Omissions) insurance, which covers the professional errors, acts, or omissions of the Contractor, shall have a minimum limit of $1,000,000. Claims-made coverage is acceptable. The date of the inception of the policy must be no later than the first date of the anticipated work under this Contract. It shall provide coverage for the duration of this Contract and shall have an expiration date no earlier than 30 days after the anticipated completion of this Contract. The policy shall provide an extended reporting period of not less than 24 months, with full reinstatement of limits, from the expiration date of the policy.

5. **Cyber Liability**
   Cyber liability insurance, including first-party costs, due to an electronic breach that compromises the GNOEC's confidential data shall have a minimum limit per occurrence of $1,000,000. Claims-made coverage is acceptable. The date of the inception of the policy must be no later than the first date of the anticipated work under this Contract. It shall provide coverage for the duration of this Contract and shall have an expiration date no earlier than 30 days after the anticipated completion of this Contract. The policy shall

provide an extended reporting period of not less than 36 months from the expiration date of the policy, if the policy is not renewed.

B. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and accepted by the GNOEC. The Contractor shall be responsible for all deductibles and self-insured retentions.

C. OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain, the following provisions:

1. Commercial General Liability and Automobile Liability Coverages

    a. The GNOEC, its officers, agents, employees and volunteers shall be named as an additional insured as regards negligence by the Contractor. ISO Forms CG 20 10 (for ongoing work) AND CG 20 37 (for completed work) (current forms approved for use in Louisiana), or equivalents, are to be used when applicable. The coverage shall contain no special limitations on the scope of protection afforded to the GNOEC.
    b. The Contractor's insurance shall be primary as respects the GNOEC, its officers, agents, employees and volunteers for any and all losses that occur under this Contract. Any insurance or self-insurance maintained by the GNOEC shall be excess and non-contributory of the Contractor's insurance.
2. Workers Compensation and Employers Liability Coverage

    To the fullest extent allowed by law, the insurer shall agree to waive all rights of subrogation against the GNOEC, its officers, agents, employees and volunteers for losses arising from work performed by the Contractor for the GNOEC.

3. All Coverages

    a. The Contractor agrees that all insurance policies shall include provisions requiring the insurer to provide the Contractor with at least thirty (30) days' prior written notice of cancellation, non-renewal, or material change in coverage, except for non-payment of premium, which shall require at least ten (10) days' prior written notice. The Contractor shall provide GNOEC with prompt written notice of any cancellation, non-renewal, or material reduction in coverage or limits of any required insurance policy within five (5) business days of receipt of such notice from the insurer or upon the Contractor's knowledge of such event.
    b. The acceptance of the completed work, payment, failure of the GNOEC to require proof of compliance, or GNOEC's acceptance of a non-compliant certificate of insurance shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.
    c. The insurance companies issuing the policies shall have no recourse against the GNOEC for payment of premiums or for assessments under any form of the policies.
    d. Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the GNOEC, its officers, agents, employees and volunteers.

D. ACCEPTABILITY OF INSURERS

1. All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with an A.M. Best's rating of **A-:VI or higher**. This rating requirement may

be waived for workers compensation coverage only.

2. If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another Certificate of Insurance within 30 days.

F. SUBCONTRACTORS

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the Certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein as applicable to their scope of work. The GNOEC reserves the right to request copies of subcontractor's Certificates at any time.

G. WORKERS COMPENSATION INDEMNITY

In the event the Contractor is not required to provide or elects not to provide workers compensation coverage, the parties hereby agree that the Contractor, its owners, agents and employees will have no cause of action against, and will not assert a claim against, the GNOEC agents and employees as an employer, whether pursuant to the Louisiana Workers Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the GNOEC, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of the Contractor, its owners, agents and employees. The parties further agree that the Contractor is a wholly independent contractor and is exclusively responsible for its employees, owners, and agents. The Contractor hereby agrees to protect, defend, indemnify and hold the GNOEC, its agents and employees harmless from any such assertion or claim that may arise from the performance of this Contract.

EXHIBIT E TO REQUEST FOR PROPOSALS NO. 2025-001

SAMPLE CONTRACT

1.0 Contract

Be it known, that effective upon approval by the Greater New Orleans Expressway Commission, as evidenced by the General Manager's signature on this document, the Greater New Orleans Expressway Commission (hereinafter sometimes referred to as "GNOEC") and [Contractor Name and Address] (hereinafter sometimes referred to as "Contractor") do hereby enter into this Contract for Toll System Replacement, R.F.P. No. 2025-001, under the following terms and conditions.

2.0 Term of Contract

This Contract shall begin on [Start Date] and shall end on [End Date] unless otherwise terminated in accordance with the Termination provisions of this Contract. At the option of the GNOEC and acceptance of the Contractor, this Contract may be extended for [Renewal Options] at the same prices, terms, and conditions.

3.0 Statement of Work

The Contractor hereby agrees to furnish the following services as detailed in the **Statement of Work** Attachment of this Contract.

4.0 Payment Terms

The GNOEC shall pay the Contractor in accordance with the **Price Schedule** Attachment of this Contract. The Contractor may invoice monthly at the billing address designated by the GNOEC. Payments will be made by the GNOEC within approximately 30 days after receipt of a properly executed invoice, and approval by the GNOEC. Invoices shall include the contract and order number and product purchased. Invoices submitted without the referenced documentation will not be approved for payment until the required information is provided.

Payment will be made only upon approval of the General Manager of the GNOEC.

4.1. Prohibition Against Advance Payments

No compensation or payment of any nature shall be made in advance of services actually performed, unless allowed by law or otherwise stated herein.

5.0 Taxes

The Contractor agrees that all applicable taxes are included in the **Price Schedule** Attachment of this Contract. The GNOEC is exempt from all State and local sales and use taxes.

6.0 Termination

The GNOEC has the right to terminate this Contract immediately for any of the following reasons: (a) misrepresentation by the Contractor; (b) Contractor's fraud, collusion, conspiracy or other

unlawful means of obtaining any contract with the GNOEC; (c) conflict of contract provisions with constitutional or statutory provisions of State or Federal Law; (d) abusive or belligerent conduct by the Contractor towards an employee or agent of the GNOEC.

6.1. Termination for Cause

The GNOEC may terminate this Contract for cause based upon the failure of Contractor to comply with the terms and/or conditions of this Contract, or failure to fulfill its performance obligations pursuant to this Contract, provided that the GNOEC shall give the Contractor written notice specifying the Contractor's failure. If within 30 days after receipt of such notice, the Contractor shall not have corrected such failure or, in the case of failure which cannot be corrected in 30 days, begun in good faith to correct such failure and thereafter proceeded diligently to complete such correction, then the GNOEC may, at its option, place the Contractor in default and this Contract shall terminate on the date specified in such notice.

The Contractor may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the GNOEC to comply with the terms and conditions of this Contract.

6.2. Termination for Convenience

The GNOEC may terminate this Contract for convenience at any time (1) by giving 30 days written notice to the Contractor of such termination; or (2) by negotiating with the Contractor an effective date. The GNOEC shall pay the Contractor for, if applicable: (a) deliverables in progress; (b) the percentage that has been completed satisfactorily; and, (c) for transaction-based services up to the date of termination, to the extent work has been performed satisfactorily.

7.0 Contract Modifications

No amendment or modification of the terms of this Contract shall be valid unless made in writing, signed by the parties and approved as required by law. No oral understanding or agreement not incorporated in this Contract is binding on any of the parties.

Changes to this Contract include any change in a) compensation; b) beginning/ending date of this Contract; c) scope of work; and/or d) Contractor change through the assignment of contract process. Any such changes, once approved, will result in the issuance of an amendment to this Contract.

8.0 Ownership of Work Product

All data, files, documentation, records, worksheets, or any other related materials obtained, prepared, or developed by the Contractor under this Contract are the property of the GNOEC. If applicable, all software and customizations developed under this Contract are the property of the GNOEC. Contractor, at its expense, shall deliver this property to the GNOEC at the termination or expiration of this Contract, unless otherwise required by this Contract. Delivery of this property shall be in a form specified by the GNOEC.

9.0 Record Ownership

All records, reports, documents and other material delivered or transmitted to the Contractor by

the GNOEC shall remain the property of the GNOEC. The Contractor, at its expense, shall return this property to the GNOEC at the termination or expiration of this Contract, unless otherwise required by this Contract. Delivery of this property shall be in a form specified by the GNOEC.

10.0 Use of GNOEC Property

Any property of the GNOEC furnished to the Contractor shall, unless otherwise provided herein, or approved by the GNOEC, be used only for the performance of this Contract.

The Contractor shall be responsible for any loss or damage to property of the GNOEC which results from willful misconduct or lack of good faith on the part of the Contractor or which results from the failure on the part of the Contractor to maintain and administer that property in accordance with sound management practices, to ensure that the property will be returned to the GNOEC in like condition, except for normal wear and tear, to that in which it was furnished to the Contractor. Upon the happening of loss, or destruction of, or damage to property of the GNOEC, the Contractor shall notify the GNOEC thereof and shall take all reasonable steps to protect that property from further damage.

The Contractor shall surrender to the GNOEC all property of the GNOEC prior to completion, termination, or cancellation of this Contract, unless otherwise specified herein. All reference to the Contractor under this section shall include any of its employees, agents, or subcontractors.

11.0 GNOEC Project Manager

GNOEC shall appoint a Project Manager for this Contract who will provide oversight of the activities conducted hereunder. Notwithstanding the Contractor's responsibility for management during the performance of this Contract, the assigned Project Manager shall be the principal point of contact on behalf of the GNOEC and will be the principal point of contact for the Contractor concerning the Contractor's performance under this Contract.

12.0 Waiver

Waiver of any breach of any term or condition of this Contract shall not be deemed a waiver of any prior or subsequent breach. No term or condition of this Contract shall be held to be waived, modified or deleted except by the written consent of both parties.

13.0 Warranties

The Contractor warrants that all services shall be performed in good faith, with diligence and care, by experienced and qualified personnel in a professional, workmanlike manner, and according to its current description (including any completion criteria) contained in the scope of work.

No Surreptitious Code Warranty. The Contractor warrants that the Contractor will make all commercially reasonable efforts not to include any Unauthorized Code in the software provided hereunder. "Unauthorized Code" means any virus, Trojan horse, worm or other software routine or component designed to permit unauthorized access to disable, erase, or otherwise harm software, equipment, or data, or to perform any other such actions. Excluded from this prohibition are identified and GNOEC-authorized features designed for purposes of maintenance or technical support.

The Contractor further warrants that it has the right to provide and or license its product to the GNOEC and that it will operate in accordance with this Contract. In the event of a material failure of the Contractor's product to function and operate, and/or failure by the Contractor to perform its obligations, in accordance with the terms and conditions of this Contract that results in the termination of this Contract for cause by the GNOEC, the GNOEC will not be obligated to compensate the Contractor of any costs incurred by the Contractor.

Extent of Warranty: THESE WARRANTIES REPLACE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

14.0 Duty to Defend

Upon notice of any claim, demand, suit, or cause of action against the GNOEC, alleged to arise out of or be related to this Contract, the Contractor shall investigate, handle, respond to, provide defense for, and defend at its sole expense, even if the claim, demand, suit, or cause of action is groundless, false, or fraudulent. The GNOEC may, but is not required to, consult with or assist the Contractor, but this assistance shall not affect the Contractor's obligations, duties, and responsibilities under this section. The Contractor shall obtain the GNOEC's written consent before entering into any settlement or dismissal.

15.0 Liability and Indemnification

15.1. Contractor Liability

The Contractor shall be liable without limitation to the GNOEC for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of the Contractor, its owners, agents, employees, partners or subcontractors.

15.2. Force Majeure

It is understood and agreed that neither party can foresee the exigencies beyond the control of each party which arise by reason of an Act of God or force majeure; therefore, neither party shall be liable for any delay or failure in performance beyond its control resulting from an Act of God or force majeure. The GNOEC shall determine whether a delay or failure results from an Act of God or force majeure based on its review of all facts and circumstances. The parties shall use reasonable efforts, including but not limited to, use of continuation of operations plans (COOP), business continuity plans, and disaster recovery plans, to eliminate or minimize the effect of such events upon the performance of their respective duties under this Contract.

15.3. Indemnification

The Contractor shall fully indemnify and hold harmless the GNOEC, without limitation, for any and all injury, death, damage, loss, destruction, damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities of every name and description, which may occur or in any way arise out of any act or omission of the Contractor, its owners, agents, employees, partners or

subcontractors. The Contractor shall not indemnify for the portion of any loss or damage arising from the GNOEC's act or failure to act.

15.4. Intellectual Property Indemnification

The Contractor shall fully indemnify and hold harmless the GNOEC, without limitation, from and against damages, costs, fines, penalties, judgments, forfeitures, assessments, expenses (including attorney fees), obligations, and other liabilities in any action for infringement of any intellectual property right, including but not limited to, trademark, trade-secret, copyright, and patent rights.

When a dispute or claim arises relative to a real or anticipated infringement, the Contractor, at its sole expense, shall submit information and documentation, including formal patent attorney opinions, as required by the GNOEC.

If the use of the product, material, service, or any component thereof is enjoined for any reason or if the Contractor believes that it may be enjoined, the Contractor, while ensuring appropriate migration and implementation, data integrity, and minimal delays of performance, shall at its sole expense and in the following order of precedence: (i) obtain for the GNOEC the right to continue using such product, material, service, or component thereof; (ii) modify the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; (iii) replace the product, material, service, or component thereof so that it becomes a non-infringing product, material, or service of at least equal quality and performance; or, (iv) provide the GNOEC monetary compensation for all payments made under this Contract related to the infringing product, material, service, or component, plus for all costs incurred to procure and implement a non-infringing product, material, or service of at least equal quality and performance. Until this obligation has been satisfied, the Contractor remains in default.

The Contractor shall not be obligated to indemnify that portion of a claim or dispute based upon the GNOEC's unauthorized: i) modification or alteration of the product, material or service; ii) use of the product, material or service in combination with other products not furnished by the Contractor; or, iii) use of the product, material or service in other than the specified operating conditions and environment.

15.5. Limitations of Liability

The Contractor shall not be liable for incidental, indirect, special, or consequential damages, unless otherwise specifically enumerated herein, or in a resulting task order or purchase order mutually agreed upon between the parties. In no circumstance shall the GNOEC be liable for incidental, indirect, special, or consequential damages; lost profits; lost revenue; or lost institutional operating savings.

15.6. Other Remedies

If the Contractor fails to perform in accordance with the terms and conditions of this Contract, or if any lien or claim for damages, penalties, costs and the like is asserted by or against the GNOEC, then, upon notice to the Contractor, the GNOEC may pursue all remedies available to it at law or equity, including retaining monies from amounts due the Contractor and proceeding against any surety of the Contractor.

16.0 Insurance

The Contractor shall purchase and maintain for the duration of this Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

The Contractor shall furnish the GNOEC with certificates of insurance effecting coverage(s) required by this Contract in accordance with the **Insurance Requirements for this RFP,** which is incorporated as an attachment of this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates are to be received and approved by the GNOEC before work commences. The GNOEC reserves the right to require complete certified copies of all required policies, at any time. The Contractor shall maintain the insurance as specified shown in the **Insurance Requirements for this RFP,** which is incorporated as an attachment of this Contract for the full term of this Contract. Failure to comply shall be grounds for termination of this Contract.

17.0 Licenses and Permits

The Contractor shall secure and maintain all licenses and permits, and pay inspection fees required to do the work required to complete this Contract, if applicable.

18.0 Severability

If any term or condition of this Contract or the application thereof is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application; to this end the terms and conditions of this Contract are declared severable.

19.0 Subcontractors

The Contractor may, with prior written permission from the GNOEC enter into subcontracts with third parties for the performance of any part of the Contractor’s duties and obligations. In no event shall the existence of a subcontract operate to release or reduce the liability of the Contractor to the GNOEC for any breach in the performance of the Contractor's duties. The Contractor will be the single point of contact for all subcontractor work.

20.0 Substitution of Personnel

If, during the term of this Contract, the Contractor or subcontractor cannot provide the personnel as proposed and requests a substitution, that substitution shall meet or exceed the requirements stated herein. A detailed resume of qualifications and justification is to be submitted to the GNOEC for approval prior to any personnel substitution. In the event that any Contractor personnel become unavailable due to resignation, illness, or other factors, excluding assignment to project outside this Contract, outside of the Contractor's reasonable control, as the case may be, the Contractor shall be responsible for providing an equally qualified replacement in time to avoid delays in completing tasks. It shall be acknowledged by the Contractor that every reasonable attempt shall be made to assign the personnel listed in the Contractor’s proposal.

The GNOEC shall reserve the right to require removal and replacement of any contract personnel whose performance it considers unacceptable.

21.0 Code of Ethics

The Contractor acknowledges that Chapter 15 of Title 42 of the Louisiana Revised Statutes (La. R.S. 42:1101 et. seq., Code of Governmental Ethics) applies to the Contracting Party in the performance of services called for in this Contract. The Contractor agrees to immediately notify the GNOEC if potential violations of the Code of Governmental Ethics arise at any time during the term of this Contract.

22.0 Confidentiality

All financial, statistical, personal, technical and other data and information relating to the GNOEC's operation which are designated confidential by the GNOEC and made available to the Contractor in order to carry out this Contract, or which become available to the Contractor in carrying out this Contract, shall be protected by the Contractor from unauthorized use and disclosure through the observance of the same or more effective procedural requirements as are applicable to the GNOEC. The identification of all such confidential data and information as well as the GNOEC's procedural requirements for protection of such data and information from unauthorized use and disclosure shall be provided by the GNOEC in writing to the Contractor. If the methods and procedures employed by the Contractor for the protection of the Contractor's data and information are deemed by the GNOEC to be adequate for the protection of the GNOEC's confidential information, such methods and procedures may be used, with the written consent of the GNOEC, to carry out the intent of this paragraph. The Contractor shall not be required under the provisions of this paragraph to keep confidential any data or information which is or becomes publicly available, is already rightfully in the Contractor's possession, is independently developed by the Contractor outside the scope of this Contract, or is rightfully obtained from third parties.

Under no circumstance shall the Contractor discuss and/or release information to the media concerning this project without prior express written approval of the GNOEC’s General Manager.

23.0 Contract Controversies

It is the intent of both parties hereto that any controversy, claim or dispute between the parties, directly or indirectly, concerning this Contract or the breach hereof, or the subject matter hereof, shall be resolved amicably if possible and without resort to civil suit. In the event such a controversy, claim or dispute does arise whether during the term hereof, or any time after the expiration of its term, the parties shall first attempt to resolve such controversy, claim or dispute by good faith discussions. In the event good faith discussions fail to resolve the controversy, claim or dispute, the matter shall be submitted to non-binding mediation with a mutually agreeable mediator in the Parish of Jefferson.

In the event, and only in the event, that good faith discussions and non-binding mediation has not resulted in the resolution of the controversy, claim or dispute, it may be litigated in the Twenty Fourth Judicial District Court, Parish of Jefferson, State of Louisiana.

24.0 Data/Record Retention

The Contractor and subcontractor shall retain all their books, their records, and their other documents relevant to this Contract and the funds expended hereunder for five years after final

payment or, if Federal funds are used, as required by applicable Federal law, whichever is longer.

25.0 Sanitization of GNOEC Data/Records in Contractor's Custody

The Contractor shall sanitize all GNOEC data and records in compliance with NIST SP 800-88 Rev 1, and any future revisions thereto, unless a specific alternative is approved in writing by the GNOEC. The Contractor shall provide quarterly a Certificate of Sanitization.

26.0 Contractor's Certification of No Federal Suspension or Debarment

The Contractor has a continuing obligation to disclose any suspensions or debarment by any government entity, including but not limited to General Services Administration (GSA). Failure to disclose may constitute grounds for suspension and/or termination of this Contract and debarment from future Contracts.

27.0 Contractor's Cooperation

The Contractor has the duty to fully cooperate with the GNOEC and provide any and all requested information, documentation, etc. to the GNOEC when requested. This applies even if this Contract is terminated and/or a lawsuit is filed. Specifically, the Contractor shall not limit or impede the GNOEC's right to audit or shall not withhold GNOEC owned documents.

27.1. Cybersecurity Training

In accordance with La. R.S. 42:1267(B)(3), if the Contractor, any of its employees, agents, or subcontractors will have access to GNOEC information technology assets, the Contractor's employees, agents, or subcontractors with such access must complete cybersecurity training annually, and the Contractor must present evidence of such compliance annually and upon request. The Contractor may use the cybersecurity training course offered by the Louisiana Department of State Civil Service without additional cost.

For purposes of this Section, "access to GNOEC information technology assets" means the possession of credentials, equipment, or authorization to access the internal workings of GNOEC information technology systems or networks. Examples would include but not be limited to GNOEC-issued laptops, VPN credentials to access the GNOEC network, badging to access the GNOEC's telecommunications closets or systems, or permissions to maintain or modify IT systems used by the GNOEC.

28.0 Commencement of Work

No work shall be performed by the Contractor and the GNOEC shall not be bound until such time as this Contract is fully executed between the GNOEC and the Contractor and all required approvals are obtained.

29.0 Prohibition of Companies That Discriminate Against Firearm and Ammunition Industries

In accordance with La. R.S. 39:1602.2, the following applies to any competitive sealed bids, competitive sealed proposals, or contract(s) with a value of $100,000 or more involving a for-profit company with at least fifty full-time employees:

Unless otherwise exempted by law, by submitting a response to this solicitation or entering into this contract, the Bidder, Proposer or Contractor certifies the following:

1. The company does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association based solely on the entity's or association's status as a firearm entity or firearm trade association;

2. The company will not discriminate against a firearm entity or firearm trade association during the term of the contract based solely on the entity's or association's status as a firearm entity or firearm trade association.

The GNOEC reserves the right to reject the response of the Bidder, Proposer or Contractor if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response or if the certification is no longer true.

30.0 E-Verify

The Contractor shall comply with the provisions of La. R.S. 23:995 and federal law pertaining to E-Verify in the performance of services under this Contract.

31.0 Headings

Descriptive headings in this Contract are for convenience only and shall not affect the construction of this Contract or meaning of contractual language.

32.0 Governing Law

This Contract shall be interpreted under Louisiana Law. Venue of any action brought, after exhaustion of mediation, with regard to all activities associated with this Contract shall be in the Twenty Fourth Judicial District Court, Parish of Jefferson, State of Louisiana.

33.0 Complete Contract

The "Contract Documents" for the Project include:

1) this Contract;
2) Insurance Requirements set forth in Exhibit D to the RFP;
3) Software License Agreement;
4) Software Escrow Agreement;
5) The RFP and all appendix, exhibits, and addenda thereto;
6) Contractor's Proposal

THIS CONTRACT IS ONE PART OF THE CONTRACT DOCUMENTS. ALL CONTRACT DOCUMENTS, EITHER TOGETHER OR INDIVIDUALLY, SHALL BE CONSIDERED THE AGREEMENT BETWEEN THE CONTRACTING PARTIES. THE PARTIES ARE BOUND NOT

ONLY BY THIS CONTRACT, BUT ALSO BY ALL APPLICABLE PROVISIONS OF EACH OF THE CONTRACT DOCUMENTS.

This Contract is entered into with neither party relying on any statement or representation made by the other party not embodied in this Contract and there are no other agreements or understanding changing or modifying the terms. This Contract shall become effective upon final approval.

34.0 Order of Precedence

The Request for Proposals (RFP) for Toll System Replacement, R.F.P. No. 2025-001, dated [RFP Posted Date], all appendix, exhibits, and addenda thereto, and the Contractor's Proposal dated [Proposal Signed Date], are attached hereto and, incorporated into this Contract as though fully set forth herein. Also specifically incorporated into this Contract are the Insurance Requirements set forth in Exhibit D to the RFP. In the event of an inconsistency between this Contract, the RFP all appendix, exhibits, and addenda thereto, and/or the Contractor's Proposal, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence first to this Contract, including the Insurance Requirements, the Software License Agreement and Software Escrow Agreement, then to the RFP and all appendix, exhibits, addenda thereto, and finally, the Contractor's Proposal.

IN WITNESS WHEREOF, the parties have executed this Contract.

[Contractor Name]	GREATER NEW ORLEANS EXPRESSWAY COMMISSION
By:	By:
Name:	Name:
Title:	Title:
Date:	Date: