



*Tampa Hillsborough County Expressway Authority*

**REQUEST FOR PROPOSAL**

**For**

**Operational Back Office System**

**Project Number: T-2325**

**Issued: December 2, 2024**

## **OPERATIONAL BACK OFFICE SYSTEM**

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## 1 ADMINISTRATIVE

### 1.1 INTRODUCTION

The Tampa Hillsborough County Expressway Authority (the “Authority”) has issued this Request for Proposal (RFP) to solicit competitive Proposals from qualified Contractors (the “Proposers”) for an Operational Back Office System (OBOS) Project (the “Project”). The Authority is using a two-phase procurement process commencing with an Expanded Letter of Response (ELOR), followed by submission of Technical and Price Proposals from Proposers who have been shortlisted for further consideration. This process is outlined below in **Section 1.18, Phase 1 – Procurement Process, Section 1.20, Phase 2 – Technical Proposal Contents and Submission** and **Section 1.21, Phase 2 – Price Proposals**.

It is the Authority’s intent to promote the use of innovative System Design concepts, technical details, and state-of-the-art technologies for the new OBOS.

The Authority intends, but is not obligated, to enter into an exclusive agreement with the selected Proposer to perform the Services for the Project as stated in the Contract Documents.

The Authority reserves the right to waive any informality in any submission, to reject any and all submissions or Proposals, to re-advertise or to elect not to proceed with the Project for any reason. All recommendations and decisions regarding the award of the Project shall be made at open public meetings in accordance with the requirements of Florida Statute 286.011, and all interested parties are invited to attend such meetings.

The term “Procurement Documents” includes all documents that are included or referenced in this RFP or provided to Proposers, including without limitation as made applicable to this Solicitation through the RFP (including, but not limited to, the advertisement, the attachments, the exhibits, the Scope of Work and Requirements (Section 4), certifications, Addenda, and the documents, reports, and information referenced in such RFP unless otherwise explicitly stated.

The term “Work” means the services required: by the Procurement Documents, by the executed Contract between the Contractor and the Authority, by the Contractor’s Proposal, and by any Contract Amendments issued after the execution of the Contract, whether completed or partially completed. The “Work” also includes all other labor, materials, Equipment and Services provided or to be provided by the Contractor for the proper execution and completion of the Contractor’s obligations.

The term “Contract Documents” includes the executed Contract between the Authority and the Contractor including all Addenda, attachments, exhibits and appendices thereto, any supplemental agreements, Contract Amendments, Deliverables, and all provisions required by law to be inserted in the Contract, whether actually inserted or not.

The Proposer must inform itself fully of the requirements under which the Work is to be performed. Proposers shall examine the Procurement Documents carefully before submitting an ELOR package and Proposal. Proposers must adhere to the requirements of all Contract Documents and Procurement Documents, and the Proposer’s Proposals.

Proposers understand that any information that has been provided by the Authority is to assist the Proposer in evaluating the Requirements for the Project and informing itself of the Work required of the Project. Drawings, schematics, reports and/or any other documents provided by the Authority are provided for information only to the Proposer, and the Authority makes no guarantee of the accuracy or completeness of such information.

In addition, by submitting an ELOR package and Proposal, the Proposer certifies that it has investigated and is fully informed of the Work Requirements, of the character, quality and quantities of Work to be performed and materials to be furnished and has included in its Submittals all items necessary for the proper execution and completion of the Work. The Proposer shall be responsible for obtaining all information that it considers necessary for the purpose of preparing and submitting its ELOR package and Proposal. The successful Proposer shall not be



relieved of its obligation to furnish all material, Equipment, labor, and Services necessary to carry out the provisions of the Contract Documents, and to complete the Work for the consideration set forth in its ELOR package and Proposals by reason of having failed to inform itself with respect to those matters. By responding to this Solicitation, the Proposer represents to the Authority that if its ELOR package and Proposal is accepted, it will execute a Contract that is inclusive of compensation for performing the Work in accordance with the Procurement Documents, including but not limited to this RFP, and the existing Authority records and Reference Documents to sufficiently support the Design developed by the Proposer.

### **1.1.1 BACKGROUND AND PURPOSE**

As an independent agency of the state, the Authority owns, maintains, and operates four facilities within Hillsborough County: the Selmon Expressway, the Brandon Parkway, Meridian Avenue, and the Selmon Greenway. The Authority currently contracts with a provider to operate and maintain both a legacy Tolling Operational Back Office System (TOBS) and a legacy roadside toll system for all toll facilities.

The legacy roadside toll system lanes capture and collect toll Transactions on all the Authority's toll facilities and interfaces to the legacy TOBS, which is utilized for Transaction aggregation and processing to external interfaces like the Florida's Turnpike Enterprise (FTE) Centralized Customer Service System (CCSS), the Authority's collection agency and the Florida Department of Highway Safety and Motor Vehicles (FLHSMV). The legacy TOBS also provides the Authority functionality for reporting, Dashboarding and Transaction research.

The purpose of this Solicitation is to procure a new OBOS to replace the legacy TOBS.

### **1.1.2 DESCRIPTION OF WORK**

The following is a general description of the Work to be performed under the Contract.

The primary function of the new OBOS, similar to the legacy TOBS, is to act as the Authority's System of record, tracking a Transaction from its initiation in the roadside toll system to its final disposition and providing business intelligence tools to report on all of the Authority's toll Transactions. Concurrent with the implementation of the new OBOS, the Authority is also procuring a new Roadside Toll Collection System (RTCS) to replace the legacy roadside system lanes. The new OBOS will receive and validate Transactions from the existing Roadside Toll Collection System and new RTCS and send them to the Florida Turnpike Enterprise's Commercial Back Office System (CBOS), known as the CCSS, where the Transactions are either applied to prepaid accounts or processed as customer invoices. As the Transactions move through the CCSS process, the CCSS provides Amendments to the OBOS which clarify the status of the Transaction. If the CCSS is unsuccessful in either assigning the Transaction to a prepaid account or receiving payment on the Transaction via a customer invoice, the unpaid Transaction is sent back to OBOS. Unpaid Transactions returned from the CCSS may be referred to the Authority's contracted collection agency and a Registration Stop may be placed on the vehicle, if registered in Florida, via a communication to FLHSMV.

The Authority is interested in soliciting Proposals from Proposers that can provide a state-of-the-art OBOS solution that is technically and operationally efficient and cost-effective with a modular, scalable architecture, utilizing proven commercial-off-the-shelf (COTS) products, where appropriate, capable of achieving all Requirements as further set forth in this Solicitation. The solicitation also includes the Maintenance and operation of the procured system.

With this Solicitation, Proposers are requested to propose a technical solution and architecture (e.g. Cloud-based, On-premises, or a mix of both) that best meets the Authority's Requirements outlined in the Procurement Documents. To this end, each Proposer shall describe their technical approach and solutions in accordance with the instructions outlined in this procurement document.

### **1.1.2.1 SUMMARY OF PROJECT PHASES**

The selected Contractor shall perform all planning, Design, development, testing and installation Services, and complete and receive the Authority's Approval on all corresponding Submittals and Deliverables required in Section 4, Scope of Work and Requirements for the Design and Implementation Phase. The Design and Implementation Phase shall begin at Notice to Proceed (NTP) and shall be complete upon System Acceptance as further defined in this Request for Proposals.

The Contractor's Operations and Maintenance Phase responsibilities shall begin upon Go-Live, and shall continue until the expiration of the Contract. Commencement of this phase shall not relieve the Contractor of any of its responsibilities to complete all Requirements and the Scope of Work of the Design and Implementation Phase and does not waive any of the rights of the Authority in this regard. The Operations and Maintenance Phase may be extended in accordance with Section 3.1.2 Contract Term, at the sole discretion of the Authority.

### **1.1.3 TIME FOR COMPLETION**

If delivered an executed Contract and Notice to Proceed for the Project, the Contractor shall proceed with the Work in accordance with the Approved, Baseline Project Schedule and within the Contract time periods specified in the Contract Documents.

- Commencing from the issuance of the Notice to Proceed, the Contractor has five hundred and twenty (520) Calendar Days to complete Project milestones one (1) through nine (9), as defined in these Procurement Documents. This includes successful, and Authority Approved, completion of the External Interface Tests, OBOS Factory Acceptance Test, Operational Readiness and User Acceptance Test, Security and Penetration Test and the Disaster Recovery Test.

Within **Section 3.1.3, Project Incentives and Liquidated Damages**, the Authority has outlined incentives and liquidated damages associated with meeting the completion of milestones 1 through 9 and all predecessor tasks.

### **1.1.4 RFP INQUIRIES / NOTICES AND CONTACT PERSON**

From the date of the Advertisement until a Notice of Award is posted, all communications (except for communications at the pre-proposal meeting, or as otherwise explicitly stated in the Procurement Documents) relating to this procurement regarding requests for interpretation, clarification or questions about the procurement process or the Project **must be in writing** addressed to the Authority's Contracts and Procurement Manager at the following email address: **Procurement@tampa-xway.com**.

Proposers shall use the form provided in **Exhibit C, Form C-7** to submit all questions to be addressed by the Authority.

The Authority will provide two (2) separate question and answer periods related to this procurement, as such: the first will be available to all potential Proposers that opens upon release of the RFP and concludes prior to submission of ELOR packages, and the second opens after Proposer shortlisting and concludes prior to submission of Technical Proposals. The second round of questions will only be open to those Proposers that are shortlisted by the Authority.

To be considered, such requests must be received no later than the date and time stated for the **Deadline for all Proposers to Submit Questions to the Authority** referenced in **Section 1.2.3, Current Schedule of Events**. The Authority shall not respond to any Proposer questions after the deadline has passed.

Any interpretations, clarifications or changes to the Procurement Documents considered necessary by the Authority will only be made in writing by Addenda posted in accordance with **Section 1.3.7, Right to Amend and Addenda**.

### **1.1.5 COST INCURRED RESPONSIBILITY**

All costs incurred by any interested party in responding to this RFP and participating in this solicitation shall be borne by such interested party. The Authority shall have no responsibility whatsoever for any associated direct or indirect costs, damages, or liabilities.

The Authority will not have stipend awards for this procurement.

## **1.2 OBTAINING THE PROCUREMENT DOCUMENTS AND SCHEDULE OF EVENTS**

### **1.2.1 OBTAINING THE PROCUREMENT DOCUMENTS**

The complete RFP (including attachments, appendices, exhibits and forms) for this Project is available on the Authority's website at <https://www.tampa-xway.com/doing-business/procurement/> and on DemandStar at <https://network.demandstar.com/> at no cost to the Proposer.

Exhibits noted as being provided to shortlisted Proposers shall be provided by the Authority via a OneDrive File Share after posting of the Board Approval of Shortlist on the date and time provided in **Table 1-1 Schedule of Events**.

Please contact the Procurement Office at [Procurement@tampa-xway.com](mailto:Procurement@tampa-xway.com) to request your link.

To be considered and receive details regarding the use of OneDrive, Proposers must contact the Authority's procurement office at [Procurement@tampa-xway.com](mailto:Procurement@tampa-xway.com) to inform the Authority of their intent to respond to this Solicitation. Once received, the Authority will setup a OneDrive folder for the Proposer's use in uploading submittals to the Authority.

### **1.2.2 INFORMATION POSTING**

It is the responsibility of all prospective Proposers interested in responding to this RFP to monitor the Authority's website at <https://www.tampa-xway.com/doing-business/procurement/> and on DemandStar at <https://network.demandstar.com/>, throughout the entire procurement process, for any revisions, question responses, Addenda, and changes to schedule and announcements related to this RFP.

### **1.2.3 CURRENT SCHEDULE OF EVENTS**

The selection process will adhere to the following schedule. All times given are Eastern Standard Time.

The Authority reserves the right to make changes or alterations to the schedule as the Authority determines is in its best interests.

Unless otherwise notified in writing by the Authority, the dates, times and locations indicated below for submission of items or for other actions on the part of a Proposer shall constitute absolute deadlines for those activities, and failure to fully comply by the dates and times stated shall cause a Proposer's submittals to be rejected and disqualified from further consideration.

**Table 1-1: Schedule of Events**

Date and Time (all times Eastern)	Description	Location
12/2/2024 by 5:00 pm	Advertisement Published	Authority Website and DemandStar
12/18/2024 @ 9:00 am	Mandatory, Pre-Proposal Meeting	<u>In-person attendance:</u> Authority’s Office: 1104 East Twiggs Street Tampa, Florida 33602.
1/6/2025 by 5:00 pm	Deadline for Proposers to Submit Round 1 Questions to the Authority	Email to <b>Procurement@tampaxway.com</b>
1/20/2025 by 5:00 pm	Deadline for the Authority to Respond to Proposer Round 1 Questions	Authority Website and DemandStar
1/30/2025 by 12:00 pm	Deadline for Submitting Expanded Letters of Response (ELOR) Packages	Uploaded to Proposer’s assigned OneDrive folder to be provided by the Authority.
2/13/2025 by 12:00 pm	Deadline for Evaluation Committee to Submit Scoring to Procurement Office	Email to <b>Procurement@tampaxway.com</b>
2/18/2025 @ 10:00 am	Evaluation Committee Meets to Confirm Scoring and Recommend Proposers for Shortlisting	In-person Meeting Authority’s Office: 1104 East Twiggs Street, Suite 300 Tampa, Florida 33602.
2/19/2025 by 5:00 pm	Posting of Notice of Intended Shortlist	Authority Website and DemandStar
2/24/2025 @ 1:30 pm	Board Approval of Shortlist	Authority’s Office: Authority Board Room 1101 E. Twiggs Street Tampa, FL 33602
2/25/2025	Authority Procurement Office Contacts Shortlisted Proposers	Notification Sent to Proposer’s Email Address
3/4/2025 by 12:00 pm	Deadline for Proposers to Submit Round 2 Questions to the Authority	Uploaded to Proposer’s assigned OneDrive folder to be provided by the Authority.
3/18/2025 by 5:00 pm	Deadline for the Authority to Respond to Proposer Round 2 Questions	Authority Website and DemandStar
4/2/2025 by 12:00 pm	Deadline for Technical and Price Proposals	Uploaded to Proposer’s assigned OneDrive folder to be provided by the Authority.

Date and Time (all times Eastern)	Description	Location
4/9/2025	Notice of Invitation to Demonstration and Interview	Notification Sent to Proposer’s Email Address
4/21/2025 – 4/24/2025	Demonstration and Interview	In-person Meeting Authority’s Office: 1104 East Twiggs Street Tampa, Florida 33602.
5/12/2025 by 12:00 pm	Deadline for Evaluation Committee to Submit Scoring to Procurement Office	Email to <b>Procurement@tampaxway.com</b>
5/15/2025 @ 1:30 pm	Evaluation Committee Meets to Confirm Scoring, Open Price Proposals and Determine Ranking	In-person Meeting Authority’s Office: 1104 East Twiggs Street, Suite 300 Tampa, Florida 33602.
5/16/2025 by 5:00 pm	Posting of Notice of Intended Final Ranking	Authority Website and DemandStar
5/19/2025 @ 1:30 pm	Board Approval of Final Ranking and Award of Contract	Authority’s Office: Authority Board Room 1101 E. Twiggs Street Tampa, FL 33602
5/20/2025 by 5:00 pm	Posting of Final Ranking	Authority Website and DemandStar

## 1.3 PROCUREMENT-RELATED MEETINGS, DETAILS, NOTICES, AND OTHER IMPORTANT INFORMATION AND REQUIREMENTS

### 1.3.1 PRE-PROPOSAL MEETING

The pre-proposal meeting is **mandatory** for all potential Proposers to this RFP. Interested, potential Proposers must attend the pre-proposal meeting in person at the Authority's office located at 1104 East Twiggs Street Tampa, Florida 33602. Any potential Proposer failing to attend the pre-proposal meeting will be eliminated from consideration. The Authority representative convening the pre-proposal meeting will provide an attendee sign-in sheet at the beginning of the meeting for those in attendance. All potential Proposers must be present and signed in prior to the start of the meeting. Any Proposer not signed in at the start of the meeting may be considered late and, at the Authority's sole discretion, may not be allowed to respond to the RFP.

The intent of the pre-proposal meeting is for the Authority and its consultant team to introduce the Project, describe the procurement process, review instructions for submitting an ELOR package and Proposal, and discuss other relevant topics related to the procurement.

The pre-proposal meeting will allow attendees to ask questions relative to any information provided by the Authority during the meeting. The Authority may choose to answer questions verbally during the pre-proposal meeting or follow up with a formal answer to any question(s) by Addendum. No oral representations or discussions, which take place at the pre-proposal meeting will be binding on the Authority. Proposers shall direct all other questions to the Authority's procurement email address (**Procurement@tampa-xway.com**) utilizing the form provided in **Exhibit C, Form C-7**.

### 1.3.2 NON-RESPONSIVE ELOR PACKAGES AND PROPOSALS

ELOR packages and Proposals found to be non-responsive shall not be considered. ELOR packages and Proposals may be rejected if found to be in nonconformance with the requirements and instructions contained in this RFP. ELOR packages and Proposals may be found to be non-responsive by reasons, including, but not limited to, any omissions, failure to utilize or complete prescribed forms, alterations of a prescribed form, conditional ELOR packages or Proposals, incomplete ELOR packages and Proposals, indefinite or ambiguous ELOR packages and Proposals, failure to meet deadlines and improper and/or undated signatures.

Other conditions which may cause rejection of ELOR packages and Proposals include evidence of collusion among Proposers, obvious lack of experience or expertise to perform the required Work, submission of more than one ELOR package or Proposal for the same Work from an individual, Contractor, joint venture, or corporation under the same or a different name, failure to perform or meet financial obligations on previous contracts, employment of unauthorized aliens in violation of Section 274A (e) of the Immigration and Nationalization Act, or in the event an individual, Contractor, partnership, or corporation is on the United States Authority of Labor's Office of Federal Contract Compliance Programs (OFCCP) Debarred Companies list, or otherwise debarred or suspended from participating in publicly procured projects.

**Note:** While an entity (e.g. individuals, Contractors, or corporations) are not allowed to submit more than one ELOR package or Proposal for the same Work under the same or different name, an entity may be a Subcontractor on more than one ELOR package or Proposal.

ELOR packages and Proposals may also be rejected if not received on or before the date and time specified as the due date for submission.

Any ELOR package or Proposal submitted by a Proposer that did not sign-in at the mandatory pre-proposal meeting may be deemed non-responsive. In addition, the Authority reserves the right to reject for any reason and without liability, in its sole discretion, any and all Proposals at any time prior to full execution of a Contract and delivery of same to the Proposer.



### **1.3.3 NO TENTATIVE OR QUALIFIED STATEMENTS OR COMMITMENTS WILL BE RECOGNIZED**

The Authority will not consider tentative or qualified commitments in ELOR packages or Technical Proposals. For example, the Authority will not consider phrases such as “we may” or “we are considering” in the evaluation process for the reason that they do not indicate a firm commitment.

### **1.3.4 WAIVER OF IRREGULARITIES**

The Authority reserves the right to waive any informalities, technicalities, abnormalities and irregularities in an ELOR package, Technical Proposal or Price Proposal and to accept the ELOR package, Technical Proposal or Price Proposal which, in the Authority's sole judgment, is in the Authority's best interests.

The Authority reserves the right to request additional or missing information and make corrections to an ELOR package, Technical Proposal or Price Proposal, upon request by a Proposer, and to waive any irregularities in any ELOR package, Technical Proposal or Price Proposal, to reject any or all ELOR packages, Technical Proposals or Price Proposals, to re-advertise the Project or elect not to proceed with the Project.

### **1.3.5 WITHDRAWAL OF ELOR PACKAGE OR TECHNICAL AND PRICE PROPOSAL**

Proposers may withdraw previously submitted ELOR packages and/or Technical and Price Proposals at any time prior to the respective ELOR package and/or Technical and Price Proposal due dates. Requests for withdrawal of a submitted ELOR package and/or Technical and Price Proposal shall be in writing and shall be signed in the same manner as the ELOR package and/or Technical and Price Proposal and received prior to the respective date and time ELOR packages and/or Technical and Price Proposals are due. Upon receipt and acceptance of such a request, the entire ELOR package and/or Technical and Price Proposal will be returned to the Proposer and not considered. No ELOR package and/or Technical and Price Proposal may be withdrawn after it is submitted unless the Proposer adheres to this section. If the Proposer improperly withdraws its Technical and Price Proposal, the Authority may seek recourse against the Price Proposal Guaranty.

### **1.3.6 RIGHT TO CANCEL**

The Authority reserves the right to cancel this RFP if it is determined to be in the best interest of the Authority to do so.

### **1.3.7 RIGHT TO AMEND AND ADDENDA**

The Authority reserves the right to amend, insert, clarify or delete any item in this RFP if it is determined to be in the best interest of the Authority. If it becomes necessary to revise or clarify any part of this RFP, responses or supplemental instructions by the Authority to the Proposers will be in the form of a Letter of Clarification or written Addendum which if issued will be posted to the Authority's website at <https://www.tampa-xway.com/doing-business/procurement/> and on DemandStar at <https://network.demandstar.com/>.

Proposers are responsible for monitoring the Authority's website and Demandstar throughout the entire procurement process. Failure of any Proposers to receive any such Letter of Clarification or Addendum shall not relieve said Proposer from any obligations contained within this Advertisement.

The Authority will not be bound by, and the Proposer shall not rely on, any oral or written communication or representation regarding the RFP Documents, except to the extent that it is contained in an Addendum or Letter of Clarification to these RFP Documents or in the Questions and Answers as posted on the Authority's website. In the case of a conflict between Addenda, the latest Addendum shall apply. All Letters of Clarification and Addendum issued shall become part of the Contract Documents.

Proposers are required to provide acknowledgment of receipt of all Addenda issued to this RFP within both the ELOR package and the Technical Proposal by completing and submitting the form in **Exhibit C, Form C-8**.

### **1.3.8 MATERIALS SUBMITTED BECOME AUTHORITY PROPERTY**

All materials submitted in response to this RFP become the property of the Authority and subject to the Florida Public Records Law (Chapter 119) or other applicable laws. For any information submitted that the Proposer considers to be confidential or exempt or excepted from public disclosure Proposers shall identify information the Proposer considers to be confidential as instructed in **Section 1.3.9, Trade Secrets and Confidential Information**. Failure to properly identify and mark information the Proposer considers to be confidential as required in Section 1.3.9 will result in all information received being deemed non-confidential, non-proprietary, and in the public domain.

All presentations/interviews (if held) for this procurement will be conducted pursuant to Chapter 286, Florida Statutes, including Section 286.0113, Florida Statutes.

### **1.3.9 TRADE SECRETS AND CONFIDENTIAL INFORMATION**

The Authority may maintain confidential information, including any designated as trade secrets or otherwise proprietary, only in accordance applicable to Federal and State laws or regulations. The Authority, therefore, expects that Proposers will keep confidential information designations to a minimum.

A Proposer, having formed a good faith opinion, upon consultation with legal or other knowledgeable advisors that information submitted in an ELOR package, Technical Proposal or Price Proposal may contain records or other information that are not required to be disclosed by the Authority by the Florida Public Records Law pursuant to Chapter 119, may so designate appropriate portions of its Proposal by marking the top and bottom of pages containing confidential information in boldface type “CONFIDENTIAL.” However, labeling information provided in documents as “proprietary” or “confidential” or any other designation of restricted use shall not protect information from release if required or deemed appropriate by the Authority under applicable policies, opening meeting laws, or public records laws, see Chapters 119 and 286, Florida Statutes. Note: Special Submission requirements are set out for financial information in Section 1.18.4.1.E (Proposer Financial Information). The Authority serves only as a records custodian of information submitted by a Proposer. The Authority shall not provide legal opinions, nor act as an arbiter or defender of any claims related to assertions of confidential information. If a request is made for disclosure of records or information submitted, or an action is brought to compel the Authority to disclose records or information marked confidential, the Authority only agrees to notify the affected Proposer of such request or action.

In submitting an ELOR package, Technical Proposal or Price Proposal in response to this RFP, a Proposer agrees to: (i) defend its assertions of confidentiality by instituting appropriate legal proceedings to prevent disclosure, at its own expense and through its counsel, or by intervening in an action brought against the Authority to compel disclosure; and (ii) indemnify and hold the Authority, and any officials or employees thereof harmless from any and all damages, costs, and attorney’s fees awarded against the Authority arising out of any such actions. Nothing in this section shall preclude the Authority from participating in the defense of such actions, at its option and expense through its counsel. The Authority shall have no liability to a Proposer with respect to the disclosure of any records or information, including confidential records or information, subject to an order by a court of competent jurisdiction or any other applicable law or due to the Proposer’s failure to contest such disclosure in a court of law.



### **1.3.10 PROPOSER'S BID**

Proposers shall complete the Proposal Affirmation Form from **Exhibit C, Form C-1** which states the Proposer agrees to furnish the Services stated within the Technical Proposal at the price(s) offered within the Price Proposal.

By submitting a Technical and Price Proposal to the Authority, the Proposer agrees that the Contractor's Technical Proposal and Price Proposal shall remain effective one hundred and eighty (180) Calendar Days from the Proposal due date.

Proposers shall complete and include the completed form in Proposal Section 7 of the Technical Proposal as a PDF.

### **1.4 REGISTRATION TO CONDUCT BUSINESS IN FLORIDA**

Proposers and Subcontractors wishing to be considered shall be properly registered and licensed to conduct business in the State of Florida with the Office of the Secretary of State at the time the ELOR package is submitted. It is the responsibility of the Proposers to verify the registration of any corporate subsidiary or Subcontractor prior to submitting a Proposal. Proposers shall be required to submit their proof of registration or license with their ELOR package.

### **1.5 WRITTEN CLARIFICATIONS**

The Authority may request written clarifications to ELOR packages and/or Proposals. The Authority will identify in its request the due date for response. If the requested information is not received by the stated due date, the Proposer's scores may be adversely affected.

### **1.6 ORAL OR REFERENCED EXPLANATIONS**

The Authority will not be bound by oral explanations or instructions given by anyone at any time during the procurement process or after Contract award. The Authority will not consider Proposer-referenced information not included in the ELOR package or Technical/Price Proposals; however, the Authority may consider other sources in the evaluation of ELOR packages or Proposals, such as reference reviews, financial ratings, and Proposer demonstrations and interviews, for example.

### **1.7 PROPOSER'S REPRESENTATION AND AUTHORIZATION**

In submitting an ELOR, each Proposer understands, represents, and acknowledges the following (if the Proposer cannot so certify to any of the following, the Proposer shall submit with its response a written explanation of why it cannot do so).

- The Proposer, nor any corporate subsidiary or Subcontractors, is not currently under suspension or debarment by the State or any other governmental authority.
- To the best of the knowledge of the person signing the response, the Proposer, its affiliates, subsidiaries, directors, officers, and employees are not currently under investigation by any governmental authority and have not in the last ten (10) years been convicted or found liable for any act prohibited by law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract.
- The submission is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any Contractor or person to submit a complementary or other noncompetitive response.

- The prices and amounts have been arrived at independently and without consultation, communication, or agreement with any other Proposer, or potential Proposer; neither the prices nor amounts, actual or approximate, have been disclosed to any Proposer or potential Proposer, and they will not be disclosed before the Price Proposal opening.
- Neither the Proposer nor any person associated with it in the capacity of owner, partner, director, officer, principal, investigator, Project director, manager, auditor, or position:
  - Has within the preceding ten (10) years been convicted of or had a civil judgment rendered against them or is presently indicted for or otherwise criminally or civilly charged for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state, or local government transaction or public contract; violation of federal or state antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; or
  - Has within a three-year period preceding this certification had one or more federal, state, or local government contracts terminated for cause or default.
- If an award is made to the Proposer, the Proposer agrees that it intends to be legally bound to the Contract that is formed with the Authority.
- The Proposer has made a diligent inquiry of its employees and Agents responsible for preparing, approving, or submitting the response, and has been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in the response.
- The Proposer shall indemnify, defend, and hold harmless the Authority and its employees against any cost, damage, or expense that may be incurred or be caused by any error in the Proposer's preparation of its Proposal.
- All information provided by, and representations made by the Proposer are material and important and will be relied upon by the Authority in awarding the Contract. Any misstatement shall be treated as fraudulent concealment from the Authority of the true facts relating to the submission of the bid. A misrepresentation shall be punishable under law, including, but not limited to, Chapter 817 of the Florida Statutes.

## 1.8 CONTRACT

### 1.8.1 CONTRACTUAL OBLIGATIONS

The Authority will not be required to evaluate or consider any additional terms and conditions submitted with a Proposal. This applies to any language appearing in or attached to the document as part of the Proposer's Proposal. By execution and delivery of this RFP and Proposal, the Proposer agrees that any additional terms and conditions or changes to the terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect unless such are specifically accepted by the Authority. Further, all exceptions must be taken in accordance with the instructions set forth in **Section 1.20.3, Contents of Technical Proposal, Subsection G - Adherence to the Scope of Work and Requirements, Terms and Conditions and Requirements Conformance**.

### 1.9 PAYMENT AND PERFORMANCE BOND REQUIREMENTS

Both a Payment and Performance Bond, satisfactory to the Authority, **and on the forms as provided in the RFP**, shall be required from the successful Proposer for, among other, the following purposes: a) to guarantee System Acceptance, as required in these Procurement Documents and pursuant to **Section 3.1.10.1, System**

**Acceptance of the Design and Implementation Phase**, including all applicable warranties; b) to guarantee the payment of all labor, materials, or supplies used directly or indirectly in the prosecution of the Work provided for in the Contract; c) to ensure stability and the meeting of the provided performance metrics of the system throughout the Operations and Maintenance Phase of the Project; and d) to comply fully with the requirements of Florida law.

The cost associated with obtaining and renewing the Performance and Payment Bonds shall be included in the Total Contract Amount within the Proposer's Price Proposal. The surety of the Bonds shall have a resident Agent in the State of Florida, meet all the requirements of the laws of Florida and the regulations of the Authority, and have the Authority's Approval. The Bonds shall have a surety that remains acceptable to the Authority throughout the duration of the Contract. In the event that the surety executing the Bonds, although acceptable to the Authority at the time of execution of the Bonds, subsequently becomes insolvent or bankrupt, or becomes unreliable or otherwise unsatisfactory due to any cause that becomes apparent after the Authority's initial Approval of the company, then the Authority may require that the Proposer, at the Proposer's expense, immediately replace the Bonds with similar Bonds drawn on a surety company that is reliable and acceptable to the Authority.

a. Bonds for the Design and Implementation Phase:

- The Design and Implementation Phase Payment Bond and the Design and Implementation Phase Performance Bond must each be in the amount of not less than 100 percent of the total contract amount for the Design and Implementation Phase of the Project.
- The Design and Implementation Phase Payment and Performance Bonds shall be provided at the time specified in Section 1.22.4 below.

b. Bonds for the Operations and Maintenance Phase:

- The first year of the Operations and Maintenance Phase Payment and Performance Bonds shall each be in the amount of not less than 100 percent of the total amount for Year 1 of the Operations and Maintenance Phase of the Project. The initial Operations and Maintenance Phase Payment and Performance Bonds must be provided to the Authority prior to the Authority issuing NTP for the Operations and Maintenance Phase. The Payment and Performance Bonds for the Operations and Maintenance Phase shall be annually renewable, to be renewed each year at the anniversary date of NTP issuance for the Operations and Maintenance Phase. Starting at year 2 of the Operations and Maintenance Phase, the amount of the bond shall be equal to the sum of the gross invoice amounts (prior to any KPI deductions) of the total amount for operations and Maintenance for the prior twelve (12) months.

In response to the ELOR package, Proposers shall be required to provide proof of bonding capacity in accordance with the instructions set forth in the Phase 1 ELOR package submittal procedure below.

The Proposer with the winning Proposal shall be required to provide the bond forms found in **Exhibit E – Performance and Payment Bond Forms** to the Authority in accordance with instructions in section **1.22.4, Execution of the Contract**.

## 1.10 INSURANCE REQUIREMENTS

Providing and maintaining adequate insurance coverage shall be a material obligation of the Contractor. The insurance coverage detailed in **Exhibit D – Insurance Requirements, Coverages, and Limits** is required.

Refer to **Section 3.1.12, Insurance Obligations** for additional insurance information.

## **1.11 SBE AVAILABILITY**

The Authority's Small Business Enterprise (SBE) Policy requires nondiscrimination on the basis of race, color, national origin, and gender in its employment and contracting practices and encourages the solicitation and utilization of SBE's. It is the policy of the Authority to encourage the participation of small businesses and disadvantaged business enterprises ("SBE") in all facets of the business activities of the Authority, consistent with applicable laws and regulations. Contractors proposing for this Project shall aspire to have Work performed by SBEs. Contractors are encouraged to utilize qualified SBE's as vendors, contractors, Subcontractors, and consultants for the Project.

## **1.12 CERTIFICATIONS, NOTICES, AND ADDITIONAL INFORMATION**

### **1.12.1 SCRUTINIZED COMPANY CERTIFICATIONS**

By submitting an ELOR package or Proposal, the Proposer certifies that: (a) (applicable to all agreements, regardless of value), it is not on the Scrutinized Companies that Boycott Israel List and is not engaged in a boycott of Israel, as defined in Florida Statutes § 287.135, as amended; and, (b) (applicable to agreements that may be \$1,000,000 or more), it is: (i) not on the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List as defined in Florida Statutes § 287.135; and, (ii) not engaged in business operations in Cuba or Syria, as defined in Florida Statutes § 287.135, as amended.

### **1.12.2 PUBLIC ENTITIES CRIMES ACT**

By submitting an ELOR package or Proposal, the Proposer certifies that it is not precluded from submitting an ELOR package or Proposal under Section 287.133(2)(a), which provides as follows: "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, Proposal or reply on a contract to provide any goods or Services to a public entity; may not submit a bid, Proposal or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids on leases of real property to a public entity; may not be awarded or perform Work as a contractor, supplier, Subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount set forth in Florida Statutes s.287.017, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list."

### **1.12.3 E-VERIFY**

Authority Contracts require contractors/consultants to comply with the requirements of E-Verify. Contractors/consultants will be required to utilize the U.S. Department of Homeland Security's Employment Eligibility Verification System (E-Verify), in accordance with the terms governing the use of the System, to confirm the employment eligibility of persons employed by the contractor/consultant, during the term of the Contract, to perform employment duties within Florida. Prime contractors/consultants are required to include an express provision in their Subcontractor/Subconsultant agreements requiring the Subcontractors/Subconsultants to do the same.

### **1.12.4 CIVIL RIGHTS**

The Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

### **1.12.5 DISCRIMINATORY VENDOR LIST**

By submitting an ELOR package or Proposal, the Proposer certifies that it is not precluded from submitting a bid or Proposal under Section 287.134, which provides as follows: An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, Proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, Proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, Proposals, or replies on leases of real property to a public entity; may not be awarded or perform Work as a contractor, supplier, Subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity unless that entity or affiliate has been removed from the list pursuant to Florida law.

### **1.12.6 FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) QUALIFICATION**

By submitting an ELOR package or Proposal, the Proposer represents that neither it nor its partners, Key Personnel, Key Subcontractors/Subconsultants, nor affiliates have had their Certificate of Qualification suspended, revoked or denied by the FDOT, or determined by the FDOT to be a non-responsible contractor.

### **1.12.7 PERMIT COSTS**

Pursuant to section 218.80, Florida Statute, the “Public Bid Disclosure Act,” the Authority gives notice to the Contractor that the Authority does not issue permits for the Work and accordingly there is no fee assessed by the Authority. However, the City of Tampa, Hillsborough County, and other governmental entities may require fees for building and other permits for the Work. The Contractor shall secure and pay for all required permits that are necessary for the proper execution and completion of the Work, including, but not limited to, all applicable site permits, building permits, engineering, dewatering, National Pollution Discharge Elimination System (NPDES) stormwater management and all other permits required to complete the Work. In addition, the Contractor shall procure all required certificates of inspection, use, occupancy and completion. The Contractor shall be responsible for coordinating and scheduling all such permitting agencies’ tests and inspections. All required certificates of inspection, use, occupancy and completion shall be delivered to the Authority by the Contractor in sufficient time for occupancy of the Project, if applicable, in accordance with the schedule for the Work. All costs incurred in connection with obtaining any permit, license, test or inspection, including any required overtime in connection therewith, shall be included within the Proposer’s Price Proposal.

### **1.13 PUBLIC RECORDS LAW**

Proposers are hereby notified that the Authority is subject to the Florida Public Records Law and the Government in the Sunshine Act, as set forth in Florida Statutes Chapters 119 and 286; as such, most communications to the Authority are subject to public disclosure, and the selection meeting(s), if any, will be open to the public. All presentations/interviews (if held) for this procurement will be conducted pursuant to Chapter 286, Florida Statutes, including section 286.0113, Florida Statutes.

### **1.14 CONE OF SILENCE**

Any communication directly or indirectly to seek to encourage any specific result in connection with an Authority selection process, including but not limited to, written communications, any and all forms of electronic communications or messaging, including social media, oral communications either in person or by telephone, initiated by a Proposer or through a lobbyist, Agent or third person, to any Authority employee and/or Committee/Board member who is a member of any committee constituted for the purposes of ranking submissions, making recommendations or making an award, is prohibited from the time that the procurement is released to the time that the award is made. Proposers or persons acting on their behalf may not contact members of the Evaluation Committee, other Authority staff, Authority officers or Authority Board Members,

or the consultants representing the Authority with this Solicitation and project once the advertisement of the Solicitation has been published and until the Authority Board has made a final decision regarding the award of this Contract.

However, the Authority's Contracts and Procurement Manager or its designee may initiate communication with a Proposer in order to obtain information or clarification needed to develop a proper and accurate evaluation related to this procurement.

Refer to **Section 1.1.4, RFP Inquiries / Notices and Contact Person** for instructions on how to contact the Authority regarding any item related to this Solicitation.

## **1.15 CONFLICT OF INTEREST POLICY**

It is a basic tenet of the Authority's contracting program that Contracts are procured in a fair, open, and competitive manner. Proposers shall use the forms provided in **Exhibit C, Form C-3**, when submitting an ELOR package to the Authority regarding any potential conflict of interest related to this procurement.

### **1.15.1 CONSULTANT ELIGIBILITY**

The Authority requires that consultants representing the Authority must be free of conflicting professional or personal interests.

A consultant firm, its affiliate, or Subconsultant that is under contract with the Authority to provide procurement support Services on this Project cannot be a Proposer or a Subconsultant to a Proposer. A contractor cannot team, as a prime, with other Contractors to submit more than one Proposal in response to this procurement.

The following consultant firms participated in the development of the Request for Proposal for this Project and are prohibited from proposing or participating with a Proposer to propose on this Project without approval from the Authority.

HNTB Corp.  
Gannett Fleming  
RS&H Inc.  
RK&K

The consultant firms identified above may not represent a comprehensive list. Consultant firms not listed above who performed Services or who are later retained to perform Services on this Project are also prohibited from proposing or participating with a Proposer to propose on this Project unless an exception is obtained from the Authority.

### **1.15.2 UNDUE INFLUENCE**

The Contractor represents and agrees that it has not attempted, and will not attempt to, improperly influence an officer or employee of the Tampa Hillsborough Expressway Authority regarding any award, extension, continuation, renewal, Contract Amendment or modification of any contract with the Tampa Hillsborough Expressway Authority.

## **1.16 CODE OF ETHICS**

The Authority has adopted a Code of Ethics which addresses the obligation of the Authority's Board members and employees to follow the Florida Statutes in reference to these issues. This includes, but is not limited to, the obligations of the Authority's Board members and employees with respect to having an interest in business



entities, outside employment, gratuities, divulgence of information, unauthorized compensation, and acceptance of gifts. Please be aware that any violation of this policy by a Proposer and/or any attempt to influence an Authority Board member or employee to violate the policy is sufficient cause for the denial of the right of the Proposer to propose on any contract or sell any materials, supplies, Equipment, or Services to the Authority for a period of time that is determined by the Authority. A copy of this policy is on the Authority's website <https://www.tampa-xway.com>.

## 1.17 NOTICE OF PROTEST

**Protests Prior to Notice of Award:** Any potential Proposer wishing to protest the Authority's procurement process or its Solicitation documents for the procurement of Services must file a Notice of Intent to Protest accompanied by a Protest Bond within 72 hours of the Authority's publication of the Solicitation documents, (excluding Saturdays, Sundays, and legal Holidays) or within 72 hours of Notice of Intended Shortlist and the Notice of Intended Final Ranking postings. The Protest Bond shall be equal to one (1) percent of the lowest bid submitted or Five Thousand Dollars (\$5,000), whichever is greater. A person may not file a protest for which he or she is not certified to propose pursuant to the RFP requirements. Within five (5) Calendar Days of the filing of the Notice of Intent to Protest and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the bid or Proposal package or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that the Authority erred in its interpretation or implementation of its Solicitation process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the Protesting party's position and arguments of law, including any evidence supporting the position.

**Protests After Notice of Award:** Any unsuccessful Proposer wishing to protest the Authority's actions leading up to a notice of recommendation to either reject any or all bids, or to make an award ("Notice of Decision"), must file a Notice of Intent to Protest, accompanied by a Protest Bond in the amount one percent (1%) of the Total Contract Amount proposed by the lowest Price Proposal submitted with the Authority within 72 hours of the Authority's publication of its Notice of Decision, (excluding Saturdays, Sundays, and legal Holidays). Within five (5) Calendar Days of the filing of the Notice of Intent to Protest and posting of bond, the protesting party must file a written protest stating with particularity the facts and law upon which the protest is based. The protest should: (1) state the specific provision(s) of the RFP or process applicable to the protest; (2) state the specific manner or method in which the protesting party alleges that the Authority erred in its interpretation or implementation of its Solicitation process, procedures or statutory provisions; (3) state the basis upon which the protest is premised; and (4) state the protesting party's position and arguments of law, including any evidence supporting the position.

The protest bond required by this **Section 1.17, Notice of Protest** shall be conditioned upon the payment of all costs which may be adjudged against the person filing the protest in the administrative hearing in which the action is brought and any subsequent appellate court proceeding. If, after completion of the administrative hearing process and any appellate court proceedings, the Authority prevails, it shall recover all costs and charges which shall be included in the final order or judgment, including attorney's fees and costs. Upon payment of such fees, costs and charges by the person filing the protest, the bond shall be returned. If the person filing the protest prevails, he or she shall recover from the Authority all costs and charges which shall be included in the final order or judgment, excluding attorney's fees. The entire amount of the bond shall be forfeited if the court determines that a protest was filed for a frivolous or improper purpose, including, but not limited to, the purpose of harassing, causing unnecessary delay, or causing needless cost for the Authority or parties.

## 1.18 PHASE 1 – PROCUREMENT PROCESS

### 1.18.1 GENERAL

The Authority is using a two-phase procurement process for this Solicitation. During Phase 1 of the procurement process, Proposers will be required to submit an ELOR package which will be reviewed and evaluated by the Evaluation Committee according to the criteria below. The contents of the ELOR package shall not discuss or reveal any price-related elements.

To be considered and receive details regarding the use of OneDrive, Proposers must contact the Authority's procurement office at **Procurement@tampa-xway.com** to inform the Authority of their intent to submit an ELOR package for this Solicitation. Once received, the Authority will setup a OneDrive folder for the Proposer's use in uploading submittals to the Authority.

The Authority shall share the OneDrive information only by inviting one point of contact for the Proposer. The recipient of the OneDrive information will receive an email invite from the Authority for OneDrive access. Shortlisted Proposers shall also use their designated OneDrive folder for submission of their Technical and Price Proposals. To be considered, Proposers must provide complete responses to all sections of the ELOR package, in accordance with the instructions and requirements of this section, and ELOR packages must be submitted in the format as instructed in this section, including sections, and heading descriptions. Omission of any section may render an ELOR package non-responsive, at the Authority's sole discretion, and it will not be evaluated.

### 1.18.2 ELOR PACKAGE SUBMITTAL DEADLINE

Proposers wishing to be considered for shortlisting must complete and submit an ELOR package per the deadline. ELOR packages shall be uploaded to the OneDrive folder provided by the Authority by the due date and time provided in **Table 1-1: Schedule of Events**. The Authority will not accept or consider ELOR packages received after the due date and time.

### 1.18.3 PHASE 1 ELOR PACKAGE SUBMITTAL PROCEDURE

ELOR packages shall only be submitted by uploading them in the Authority's OneDrive folder designated for the Proposer, in PDF format, including bookmarks for each section and with the ability to be searched using an Optical Character Recognition (OCR) tool. Bookmarks that provide links to content within the ELOR package are allowed. Bookmarks that provide links to information not included within the content of the ELOR package shall not be utilized. No macros shall be allowed.

Proposers shall be judicious regarding the inclusion of large, unnecessary images or other items not requested in this Solicitation (e.g. marketing materials) within their ELOR package.

ELOR packages transmitted by facsimile, e-mail or mail are non-responsive and will not be considered. Only one (1) ELOR package, in one (1), combined PDF file download, per legal entity is acceptable.

It is solely the Proposer's responsibility to ensure that their ELOR package is received by the Authority by the ELOR package due date and time. Proposers are encouraged to provide themselves with ample time to ensure ELOR packages are received by the Authority on time. The Authority is not responsible for any Proposer's delay or failure to successfully upload ELOR packages on time.

The ELOR package will be made up of three (3) sections: 1) the Pass/Fail Criteria, 2) Cover Letter and 3) the Scored Criteria, as noted below. The ELOR package shall be formatted using 8½"x11" pages, Times New Roman font, and a minimum font size of twelve (12).

The ELOR package does have page limitations. The Cover Letter and the Staffing, Experience/Qualifications and Approach Section of the ELOR package, as noted in the sections below, shall make up the eleven (11)



page limitation. The Pass/Fail Criteria and resumes shall not count toward the eleven (11) page limitation of the ELOR package. Reference **Table 1-2** and each section’s requirements below for additional details regarding the ELOR package page limitation.

**Table 1-2: Expanded Letter of Response – Page Limitations**

<b>Phase 1 - Expanded Letter of Response – Page Count</b>		<b>Maximum Page Count</b>
<b><u>Section 1 - Pass/Fail Criteria:</u></b>		
	<u>Pass/Fail Criteria</u> a. Proof of Insurance b. Proof of Bonding Capacity c. Claims Disclosure d. Conflict of Interest e. Financial Information f. Acknowledgment of Addenda	n/a
<b><u>Section 2 - Cover Letter:</u></b>		
	Cover Letter.	1 page
<b><u>Section 3 - Staffing, Experience/Qualifications and Approach:</u></b>		
A.	Proposed Staffing.	2 pages
B.	Proposer Experience and Qualifications.	5 pages
C.	High-level Approach to Design and Implementation and Operations and Maintenance.	3 pages
	<b>Total:</b>	<b>11 pages</b>

The Authority will not consider ELOR packages not in conformance with the requirements as outlined in this section. The Evaluation Committee also reserves the right to solicit from available sources relevant information concerning a Proposer’s past performance. The Evaluation Committee may consider all such information in its selection of shortlisted Proposers.

**1.18.4 ELOR PACKAGE REQUIREMENTS**

***1.18.4.1 ELOR PACKAGE SECTION 1 – THE PASS/FAIL CRITERIA***

The following Pass/Fail information must be submitted with the ELOR package and shall make up the first section of the ELOR package. Proposers must include each subsection as noted below (A-F) and label each section with the same section heading. Proposers that fail to meet and submit all of the Pass/Fail criteria below will not be shortlisted. All information required by this Pass/Fail section is excluded from the page count.

The Pass/Fail criteria are minimum criteria that a Proposer must meet and/or provide in order for its ELOR package to be considered responsive. The Pass/Fail evaluation includes a responsiveness review and a legal sufficiency review, as described in further detail below. All information provided in ELOR Section 1 may be used in the scoring of the Proposer’s ELOR package.

Proposers must meet and/or provide all of the criteria below to be considered responsive.

#### **A. PROOF OF INSURANCE**

Provide evidence of the Proposer’s ability to provide the insurance coverage required in **Exhibit D – Insurance Requirements, Coverages, and Limits**, either by means of an existing policy or other verifiable proof (such as an Agent/Broker commitment letter).

#### **B. PROOF OF BONDING CAPACITY**

Provide a letter by the Proposer’s Surety of the Proposer’s ability to provide Performance and Payment Bonds in the amount of \$10 million for a single Project together with evidence for maximum single Project bonding capacity and Proposer’s aggregate bonding capacity. The Surety must be rated no less than “A-” as to management and no less than “VIII” as to strength, by the latest edition of Best’s Insurance Guide, published by A.M. Best Company, Post Office Box 1107, Summit, New Jersey 07901.

Information shall be provided by the Surety on behalf of the Proposer on the Surety’s letterhead.

#### **C. CLAIMS DISCLOSURE**

Disclose all lawsuits, arbitrations and claims filed or raised by or against the Proposer over the last (5) years. Include the case name, case number, jurisdiction, amount at issue, and a brief description of the dispute. Identify any contracts where the Proposer has been terminated for cause or defaulted within the past five (5) years.

#### **D. CONFLICT OF INTEREST**

Proposers shall use the forms provided in **Exhibit C, Form C-3**, when submitting an ELOR package to the Authority regarding any potential conflict of interest related to this procurement.

Proposers shall follow the instructions on the forms, complete forms **C-3.1, Conflict of Interest Statement Form** and **C-3.2, Conflict of Interest Disclosure Form**, and include them in this section of the ELOR package as one (1) combined PDF.

#### **E. FINANCIAL INFORMATION**

Financial documentation may be submitted in a separate PDF with the ELOR package, with the cover page clearly labeled as follows: "Confidential Financial Records Submitted under Seal and Exempt from Florida Public Records Disclosure". Include the Project title on the cover page, "Confidential Financial Records" and section 119.071(1)(c), Florida Statutes on each page of the financial documentation submitted.

Proposers shall provide the following financial information:

1. Annual revenues for the last five (5) years for the Proposer and for the subsidiary, division or group responsible for this Project.
2. A copy of the Proposer’s audited financial statements for the past two years. If a Proposer does not produce audited financial statements, the Proposer shall submit any financial

statements that it does have (e.g. lines of credit, statements compiled by an outside accounting firm, etc.) and any other information the Proposer feels is pertinent in establishing the financial stability of its business/organization. The Authority reserves the right to review other publicly available information regarding the Proposer’s financial stability, as part of the evaluation. If a Proposer has questions about what evidence of the Proposer’s financial stability will be acceptable to the Authority, the Proposer should communicate with the Authority as set forth in **Section 1.14, Cone of Silence**.

## **F. ACKNOWLEDGMENT OF ADDENDA**

The Authority reserves the right to amend any item in this RFP if it is determined to be in the best interest of the Authority.

Proposers shall provide an acknowledgment of receipt of all Addenda issued to this RFP within the ELOR package by completing the form in **Exhibit C, Form C-8** and including it in this section of the ELOR package as a PDF.

### ***1.18.4.2 ELOR PACKAGE SECTION 2 – COVER LETTER***

A cover letter signed by a person with the authority to make legal commitments on behalf of the Proposer shall make up the second section of the ELOR package. The letter shall also include the name and contact information for the Contractor Project Manager. The Contractor Project Manager shall be the main point of contact for the Authority throughout the procurement process. The cover letter shall include the Proposer’s Statement of the following:

1. The full legal name, address and phone number of the legal entity that will contract with the Authority if awarded the Contract. Indicate all former names, if any, under which the Proposer has conducted business within the past ten (10) years and the years of operation under each name.
2. Name, address, email address, and telephone number of one (1) individual (the Contractor Project Manager) to whom all future correspondence and/or communications related to this Solicitation and the Project will be directed.

The cover letter narrative in this section shall be restricted to one (1) page and shall count toward the eleven (11) page limitation of the ELOR package.

### ***1.18.4.3 ELOR PACKAGE SECTION 3 – STAFFING, EXPERIENCE AND APPROACH***

In addition to the Pass/Fail Criteria, all Proposers must provide the following with their ELOR package. This shall make up the third section of the ELOR package. Proposers must include each subsection as noted below (A-C) and label each section with the same section heading.

#### **A. PROPOSED STAFFING (2 PAGES)**

1. Proposer shall provide a short narrative and biography describing each proposed Key Personnel (See Table 1-5). This description/biography shall include:
  - Staff name
  - Proposed position
  - Number of years of experience supporting Projects in a similar role
  - Primary discipline and related experience to their assignment on the Project

- Acknowledgment of the required experience and certifications
2. Proposer shall indicate the availability and commitment of each Key Personnel member for the Design and Implementation Phase and for the Operations and Maintenance Phase of the Project, including any Subcontractors or Subconsultants proposed for Key Personnel positions.
  3. In addition to the two (2) pages that provide the narrative on Key Personnel and their availability and commitment, Proposer shall provide resumes (not to exceed two (2) pages), for each of the Key Personnel within this section of the ELOR package. Resumes shall denote any certifications attained and held by Key Personnel. **Note:** Resumes are not included in the page limitation of this section of the ELOR package.

The Proposed Staffing narrative in this section shall be restricted to two (2) pages and shall count toward the eleven (11) page limitation of the ELOR package.

## **B. PROPOSER EXPERIENCE AND QUALIFICATIONS (5 PAGES)**

1. Proposers shall describe their firm and staff experience with On-premises, Cloud-based, and/or hybrid (e.g. mixture of On-premises and Cloud-based) architectures in the following areas, as it directly relates to the solution that is being proposed:
  - a. Design and Implementation – including System and Software Development, Testing, Transition, QA/QC and Data Migration.
  - b. Technical - including Scalability, Capacity & Performance, Modular Development, Database Optimization, Replication and Storage, External Interfaces, Security, Software, API and Network.
  - c. Operation – including Real Time Transaction Processing, GUI and Data Visualization, Business Intelligence Tools, Reporting and Dashboards, Data Retention and Backup, and Disaster Recovery.
  - d. Maintenance – including On-going monitoring, Maintenance ticket management system, Response, Vulnerability Management, Scans and Audits and System Updates.
2. Proposer shall submit a short narrative describing:
  - a. Past performance on three (3) projects of similar scope, complexity, and scale. One of the three (3) referenced projects must have been implemented within the last five (5) years and be under active operations and Maintenance by the Proposer.
  - b. For each of the three (3) projects included in the narrative above, the Proposer shall also include a description of the project scope, size, total dollar value and specific services provided. The Proposer shall also note the timeframes around each project (e.g. start and end dates for the Design and Implementation Phase and start and end date for Operations and Maintenance Phase).
  - c. For each of the three (3) projects, complete the Company Reference form provided in **Exhibit C, Form C-4** and submit them in this section of the ELOR package as one (1) combined PDF. The Company Reference Forms do not count towards the ELOR package page limit.

The Proposer Experience narrative in this section shall be restricted to five (5) pages and shall count toward the eleven (11) page limitation of the ELOR package.

**C. HIGH-LEVEL APPROACH TO DESIGN AND IMPLEMENTATION AND OPERATIONS AND MAINTENANCE (3 PAGES)**

1. Proposer shall provide a concise description of their proposed approach to the Design and implementation of the OBOS with specific information related to the proposed use of an On-premises and/or Cloud-based architecture.
2. Proposer shall provide a concise description of their proposed approach to operations and Maintenance of the OBOS with specific information related to the proposed operations and Maintenance of the proposed solution (On-premises and/or Cloud-based architecture).

The approach narratives in this section shall be restricted to three (3) pages and shall count toward the eleven (11) page limitation of the ELOR package.

**1.18.5 ELOR PACKAGE EVALUATION CRITERIA**

The criteria for evaluating the Phase 1 ELOR packages shall be as shown in Table 1-3 below:

**Table 1-3: Expanded Letter of Response – Evaluation Criteria**

<b>Phase 1 - Expanded Letter of Response – Evaluation Criteria</b>		<b>Maximum Point Value</b>
A.	Proposed Staffing	20
B.	Proposer Experience and Qualifications	50
C.	Approach to Design and Implementation and Operations and Maintenance	30
<b>Total:</b>		<b>100</b>

**The 100 total points are for determining the shortlist firms only and will not carry over to Phase 2.**

**1.18.6 PHASE 1 SCORING**

The ELOR packages will first be opened and reviewed for responsiveness and responsibility based on the Pass/Fail criteria.

Each Evaluation Committee Member shall then individually score each responsive Proposer, and an average score shall be computed by the Authority.

The Evaluation Committee will select no fewer than three (3) and no more than five (5) of the most qualified Proposers to recommend for shortlist to the Authority’s Board of Directors. The Authority will determine the most qualified based on the evaluation and scoring criteria outlined in the ELOR package evaluation criteria above. The Phase 1 ELOR package scores will be used to select Proposers for the shortlist only and will not carry through to Phase 2. If fewer than three (3) qualified firms submit responses, the Authority, at its sole discretion, may elect to continue the selection process, reconvene the shortlisting meeting for reconsideration of the shortlist, or re-advertise the Project. Shortlisted Proposers will proceed to Phase 2.

## **1.19 PHASE 2 – PROCUREMENT PROCESS**

### **1.19.1 GENERAL**

Phase 2 of the procurement process will require submission of a separate Technical Proposal and Price Proposal. The Proposer shall not discuss or reveal elements of the Price Proposal within their written Technical Proposals.

Technical and Price Proposals must be submitted in the format, including sections, and heading descriptions, as instructed in **Phase 2 – Technical Proposal Contents and Submission** and **Phase 2 – Price Proposal** below. To be considered, Proposers must provide complete Technical and Price Proposals, including all required sections, in accordance with the instructions. Omission of any section may render a Proposal non-responsive, at the Authority’s sole discretion, and it will not be evaluated.

### **1.19.2 TECHNICAL AND PRICE PROPOSAL SUBMITTAL DEADLINE**

Complete and separate Technical and Price Proposals shall be uploaded to the OneDrive folders designated by the Authority by the due date and time provided in **Table 1-1: Schedule of Events**. Proposers shall upload two separate files into separate folders: one (1) for the Technical Proposal and one (1) for the Price Proposal. The Authority will not accept Proposals submitted after the due date and time. Technical and Price Proposals received after that time will not be considered.

## **1.20 PHASE 2 – TECHNICAL PROPOSAL CONTENTS AND SUBMISSION**

### **1.20.1 TECHNICAL PROPOSAL SUBMITTAL PROCEDURE**

The Technical Proposal shall be limited to the information, paper size, and page limitation requirements as listed herein. Proposers shall be judicious regarding the inclusion of large, unnecessary images or other items not requested in this Solicitation (e.g. marketing materials) within their Technical Proposal.

The PDF portions of the Technical Proposal shall be one (1) PDF file. It is the Proposer’s responsibility to ensure all files are uploaded to the Authority.

Technical Proposals transmitted by facsimile, e-mail or mail are non-responsive and will not be considered. Only one (1) Technical Proposal package, in one (1), combined PDF file download, per legal entity is acceptable.

It is solely the Proposer’s responsibility to ensure that the Technical Proposal is received by the Authority by the Technical Proposal due date and time. Proposers are encouraged to provide themselves with ample time to ensure Technical Proposals are received by the Authority on time. The Authority is not responsible for any Proposer’s delay or failure to successfully upload their Technical Proposal on time.

#### ***1.20.1.1 SUBMISSION OF TECHNICAL PROPOSAL***

##### **1. Format of Technical Proposal.**

- a. The Technical Proposal shall only be submitted in the formats as noted in each section below. Documents submitted in PDF will include bookmarks for each section and will have the ability to be searched using an OCR tool. Bookmarks that provide links to content within the Technical Proposal are allowed. Bookmarks that provide links to information not included within the content of the Technical Proposal shall not be utilized. No macros will be allowed.

- b. All sections required in the Technical Proposal (e.g. Cover Letter, Executive Summary, Proposal Sections 1 – 7, Appendices and Forms and Submittals) shall be compiled into a single PDF file.
  - c. Any Technical Proposal exhibits, or information prepared either as graphics or with other programs, such as scheduling programs, shall be submitted in a PDF file without any other software required for review.
2. **Page Presentation.** Technical Proposal text shall be single-spaced, a minimum of 12-point, Times New Roman font. Each page header and/or footer should include the Proposer’s name page numbers, and date of the Proposal.

Headers and footers may be in different size font from that specified, but they must be legible. The Authority will not be responsible for reviewing portions of proposals with illegible text. Illegible text will be ignored.

**1.20.2 TECHNICAL PROPOSAL – MINIMUM INFORMATION REQUIRED**

The minimum information to be included in the Technical Proposals is as follows:

**1.20.3 CONTENT OF TECHNICAL PROPOSAL**

Proposals shall be prepared simply and economically, providing a straightforward, concise description of the Proposer’s ability to meet the requirements of the RFP. Refer to **Table 1-4: Technical Proposal Page Limitations** below for more information on page limitations.

**Table 1-4: Technical Proposal Page Limitations**

Technical Proposal Sections to be Completed by a Proposer	Page Count Limitations
Cover Letter	1 to 2 pages (not included in 50-page count limitation.)
Executive Summary	5 pages (not included in 50-page count limitation.)
Section 1: Proposer Experience and Qualifications	Limited to a combined total of 50 printed pages (excluding all table of contents, table of tables, or table of figures and the MS Project Schedule and PDF version of the Project Schedule)
Section 2: Staffing and Key Personnel Qualifications <b>Note:</b> Resumes do not count towards the page limitation.	
Section 3: Approach to Scope of Work	
Section 4: Preliminary Project Schedule	
Section 5: Adherence to the Scope of Work and Requirements, Terms and Conditions and Requirements Conformance Matrix	No limitations
Section 6: Technical Proposal Appendices	See requirements below for each Appendix page count limitations
Appendix 1: Sample Reports	5 pages (no more than 5 sample reports at 1 page per report. (not included in 50-page count limitation.)



Technical Proposal Sections to be Completed by a Proposer	Page Count Limitations
Appendix 2: Key Personnel Resumes	2 page limit per resume (not included in 50-page count limitation.)
Appendix 3: Organizational Charts	Not included in 50-page count limitation.
Section 7: Forms and Submittals	No limitations

Each numbered section designates a specific and separate section Proposers shall include in their Technical Proposal:

**A. COVER LETTER**

The Proposal shall include a cover letter signed by an officer of the proposing company with signature authority to enter into the proposed Contract with the Authority. This letter should be very brief, (per the noted page limitations) and provide the corporate commitment that the Proposal meets the scope and Requirements of the RFP. The letter shall also include the name and contact information for the Contractor Project Manager. The Contractor Project Manager shall be the main point of contact for the Authority throughout the procurement process.

**B. EXECUTIVE SUMMARY**

The executive summary shall summarize the Proposer’s Proposal and highlight the most important aspects of the Proposer’s Technical Proposal.

**C. PROPOSAL SECTION 1: PROPOSER EXPERIENCE AND QUALIFICATIONS**

Provide the following information regarding the Proposer’s experience and qualifications, including Subcontractors. Number and provide the information in the specific format provided below:

1. Company history and description of the Proposer’s organizational structure, including size, capability, and area(s) of specialization.
2. A detailed discussion of the Proposer’s (including any Subcontractors) qualifications and experience as it relates to this Project, in the following areas:
  - a. Designing, developing, implementing, and maintaining systems of similar scope, complexity, and scale to the OBOS required with this Solicitation.
  - b. Designing, developing, implementing and maintaining a system with a similar architecture to that being proposed (i.e. On-prem, Cloud-based or hybrid).
  - c. Designing, implementing, and maintaining a system that is scalable and modular.
  - d. Developing and maintaining a system that provides real time Transaction processing, GUI and data visualization, reporting and Dashboards.
  - e. Development of Interface Control Documents (ICD) and data exchange interfaces utilizing file exchanges and application programming interfaces (API).
  - f. Performing data migration from a legacy system, which is not the Proposer’s system, to a new system.



- g. Data replication, back-up, and Disaster Recovery.
  - h. Maintaining a system with on-going monitoring, a ticket management system, response and resolution, system update and adherence to KPIs.
  - i. System Security and vulnerability management.
3. Complete the List of Subcontractors Form from **Exhibit C, Form C-2** which includes the Subcontractor name, address, work to be performed and estimated percentage of total work value to be performed. Include the completed form in Section 7 of the Technical Proposal as a PDF.

**D. PROPOSAL SECTION 2: STAFFING AND KEY PERSONNEL QUALIFICATIONS**

Provide the following information regarding the Proposer’s Key Personnel qualifications, including Subcontractors. Please number and provide the information in the specific format provided below.

1. For each Key Personnel position listed in Table 1-5 below, provide the name, position, years of relevant experience and how the experience relates specifically to this Project. Also include their specific role on this Project, specify which positions identified below will support the Design and Implementation and/or Operations and Maintenance Phases of the Project, and the estimated percentage of time each will be dedicated to this Project in each phase.

**Table 1-5: Key Personnel Roles and Qualifications**

Key Personnel Roles and Qualifications	
Key Staff Position	Qualifications
<b>Contract Project Principal</b>	<i>Shall be responsible for the oversight of the Project Manager and Quality Assurance Manager and a point of contact for any escalated Project issues that cannot be resolved by the Project Manager and/or Quality Assurance Manager. Ultimate responsibility for delivery of Project.</i>
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Ten (10) years of experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of senior management responsibility for projects of similar scope.</li> </ul>
<b>Contractor Project Manager</b>	<i>Shall be responsible for managing day-to-day Work activities, the overall execution and delivery of the Project, and be the contact person for all Project matters for the Project team and the Authority.</i>

Key Personnel Roles and Qualifications	
Key Staff Position	Qualifications
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Seven (7) years of experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of experience as a project manager.</li> <li>• Project Manager for at least one transaction processing system of similar scope, including the Design, implementation, operation, and Maintenance.</li> <li>• Direct experience in the proposed architecture.</li> </ul> <p><b>Desired Certification:</b></p> <ul style="list-style-type: none"> <li>• Certification in Project Management or PMP</li> </ul>
<b>Quality Assurance Manager</b>	<p><i>Shall be responsible for ensuring consistent Quality Assurance and Quality Control throughout the duration of the Contract.</i></p> <p><i>Note: The Quality Assurance Manager and the Contract Project Manager shall not be the same individual.</i></p>
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience as a Quality Assurance Manager, implementing best practices for Quality Control and Quality Assurance for Projects of similar scope, including IT and database delivery.</li> </ul>
<b>Lead Software Developer</b>	<p><i>Shall be responsible for leading the development of the OBOS technology, systems, interfaces, and APIs.</i></p>
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Ten (10) years of software development experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of experience as a software development manager.</li> <li>• Served as the Software Development Manager for at least one transaction processing system, or system of similar scope, including the Design, implementation, and Maintenance.</li> <li>• Experienced in the proposed architecture.</li> </ul>
<b>System Architect</b>	<p><i>Shall be responsible for the structure of the OBOS, the use of 3rd party resources, Disaster Recovery, data retention, data backup, modularity, messaging, encapsulation, and abstraction.</i></p>

Key Personnel Roles and Qualifications	
Key Staff Position	Qualifications
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Seven (7) years of experience with system Design and architecture.</li> <li>• Five (5) years of experience with security for systems in transaction processing, payment processing or a similar industry.</li> <li>• Direct project experience architecting a transaction processing system, or system of similar scope.</li> <li>• Experienced in the proposed architecture.</li> </ul>
<b>Test Manager</b>	<p><i>Shall be responsible for all aspects of internal and Formal Testing for the Project from the development of Test Plans and Scripts; conduct of internal, dry-run and Formal Testing efforts; and recording and reporting of test results. Assures that all aspects of Requirements and Design are covered in testing.</i></p>
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience with testing, including both hardware and software.</li> <li>• Has led the planning and execution of testing for at least two (2) projects of similar size and scope and at least one (1) project that transitioned from an existing system to a new system.</li> </ul>
<b>Maintenance Manager</b>	<p><i>Shall be responsible for managing the on-going operation and Maintenance of the OBOS, including Maintenance resources, System and performance monitoring, preventative Maintenance, client coordination, issue resolution, and system security.</i></p> <p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience operating and maintaining a system of similar scope.</li> </ul>

2. Explain the number of employees within the company/firm that are responsible for this Project or qualified to support this type of Work.
3. Provide resumes (not to exceed two (2) pages each), for each of the proposed Key Personnel. Resumes shall denote any certifications attained and held by Key Personnel. Proposers are to include resumes in **Appendix 2** of the Technical Proposal.  
  
**Note:** Resumes do not count against the page limitation of the Technical Proposal.
4. Provide an organizational chart for the Design and Implementation Phase of the Project through System Acceptance. Proposers are to include the Design and Implementation Phase organizational chart in **Appendix 3** of the Technical Proposal. The Design and

Implementation Phase organizational chart shall be titled, “Design and Implementation Phase Organizational Chart”.

**Note:** The Design and Implementation Phase organizational chart does not count against the page limitation of the Technical Proposal.

5. Provide an organization chart for the Operations and Maintenance Phase of the Project. Proposers are to include the Operations and Maintenance Phase organizational chart in **Appendix 3** of the Technical Proposal. The Operations and Maintenance Phase organizational chart shall be titled, “Operations and Maintenance Phase Organizational Chart”.

**Note:** The Operations and Maintenance Phase organizational chart does not count against the page limitation of the Technical Proposal.

6. Proposers must complete the Key Personnel and Qualifications form in **Exhibit C, Form C-5** per the instructions on the form and provide the completed form in Section 7 of the Technical Proposal as a PDF.

### **E. PROPOSAL SECTION 3: APPROACH TO SCOPE OF WORK**

The Proposer shall provide their approach to implementing their proposed solution for each of the following areas within Section 3 of the Technical Proposal.

1. System Architecture – Proposers shall provide a system architecture diagram and provide a narrative on the architecture approach.
  - a. The Proposer shall document how the Proposer’s architecture provides scalability for future growth and functionality. Specifically address how the proposed architectures will be capable of processing up to 200% of a typical day's worth of data, on any day during the life of the Contract, and be easily scalable to accommodate future growth over the life of the Contract without experiencing System slowness or degradation.
  - b. For modularity, specify how the proposed solution will accommodate changes in technology given anticipated upgrades, growth, and technology advances during the Contract Term.
  - c. For any Cloud-based architecture elements, discuss the Proposer’s approach to choosing a Cloud provider, and their approach to evaluating Cloud providers to ensure longevity of the Cloud provider they choose to avoid transitioning from one provider to another during the Contract Term. Also describe considerations in choosing a Cloud provider to ensure the Cloud provider is capable of supporting the Proposer in meeting all System, performance, operations and Maintenance Requirements of the RFP throughout the Contract Term.
  - d. For any On-premise architecture elements, discuss the Proposer’s approach to the selection of hardware and the approach to meeting all System, Performance, operations and Maintenance Requirements of the RFP throughout the Contract Term including any necessary technology refresh.
2. Software Design – Based on the proposed solution, Proposers shall present how they have made the determination as to which of the OBOS Requirements will require the development of new Software, which will be included within the existing code/solution, which will be met using commercial off-the-shelf Software (COTS) and how this approach will benefit the Authority. Proposers shall describe the process they shall follow to obtain feedback and

Approvals from the Authority throughout the Design and development phase of the Project. Proposers will also present their approach to change management, Software Updates and patches and the associated coordination with the Authority. Discuss the Proposer's approach to the Design and development of Software graphical User interface(s) and how the Software Design will ensure ease of use for all Users and functions.

3. Database Design – Discuss how the Proposer will Design, document, test and provide for the proper administration of data and databases to ensure the system is optimized for performance and responsiveness. Please specifically address the following:
  - a. Describe how the Proposer's database Design will ensure proper indexing and deliver highly responsive reports and queries for the fields and reports identified during the Design and Implementation Phase.
  - b. Describe the approach the Proposer shall follow to address the need for new indexes as additional fields, reports, or queries are introduced over time.
  - c. Describe the processes used to identify and resolve poor database performance, including handling high query volumes and complex queries.
  - d. Discuss the methods and procedures the Proposer shall employ to proactively optimize and maintain database performance without impacting system availability or response times.
  - e. Describe the database replication approach proposed for the OBOS implementation, including synchronous vs. asynchronous replication, and how it supports fault tolerance (i.e. high availability) and Disaster Recovery (e.g. zero or minimal downtime during failover scenarios).
  - f. Outline the tools and processes used to continuously monitor database health, performance (including sizing and log file management), and security, as well as addressing how issues are detected and resolved before impacting system performance or availability.
  - g. Explain how the proposed OBOS database Design accommodates growth in data volume, Users, and Transactions without degrading performance.
4. System interfaces - Proposers shall provide their approach to designing, developing and/or implementing the external interfaces to other systems identified in the scope of work, and how future ICD changes can be accommodated most efficiently.
5. Reporting, Dashboards & Business Intelligence Tools – Discuss System capabilities to satisfy the reporting Requirements of the project. Please specifically address the following:
  - a. Identification of how reporting can be used to reconcile OBOS data with the various third-party entities including RTCS, TOBS, CCSS, collection agency and FLHSMV.
  - b. The relationship of reports and Dashboards to database architecture and how report and Dashboard generation is optimized.
  - c. The unique features of the Proposer's reporting and Dashboard system.
  - d. Configurability and support of ad-hoc report generation and self-service capabilities, including the scheduling of report generation and delivery.
  - e. How reports and Dashboards identified in the scope of work can be generated without a need for the User to have database analyst skills or even knowledge of the database.

- f. Proposers will describe and provide examples of the interface for the generation of reports and Dashboards.
    - g. Proposers shall describe the proposed Business Intelligence Software, how it was selected, and how the Software is anticipated to be used in conjunction with or in lieu of system reports and Dashboards.
6. Testing – Proposers shall present their approach to testing and the testing Requirements identified in the scope of work. Please specifically address the following:
  - a. Test preparation and any pre-testing activities to ensure the success of each test identified in the scope of work. Proposers should describe their approach to the informal demonstrations that are required in the scope of work and how these demonstrations will ensure both the success of the Formal Testing, but also the concurrence by the Authority of the System Design, User interfaces, System reports and Dashboards.
  - b. How the Proposer’s approach will ensure comprehensive testing to ensure the successful implementation of OBOS.
7. Data Migration – Discuss the key components of the Proposer’s Plan for migrating data from the existing operations back office (TOBS) to OBOS.
  - a. Describe the proposed processes and tools the Proposer shall use to ensure the migrated data conforms to the Proposer’s database schema, indexing strategies, and performance Requirements.
  - b. Explain how the Proposer shall validate that historical data is accurately migrated and continues to support existing reports and queries without performance degradation or data inconsistencies.
  - c. Describe the following aspects of the Proposer’s migration Plan and approach:
    - i. Ensure minimal downtime during the migration process.
    - ii. Data validation and reconciliation techniques and procedures.
    - iii. Risk mitigation strategies to mitigate opportunities for data loss or corruption.
  - d. Outline how the Proposer shall test and validate the migrated data to ensure it meets functional, performance, and accuracy Requirements.
8. Security – Discuss the Proposer’s approach to meeting the security Requirements identified in the scope of work and maintaining security compliance through the Contract Term. Please specifically address the following:
  - a. The Proposer’s approach to data security, network security, application security and access control.
  - b. How the Proposer remains on the cutting edge of emerging threats and technologies to ensure the security of OBOS?
  - c. Over the Contract period, there are likely to be changes in regulatory compliance and security standards, including NIST that will affect the OBOS. Please provide examples of how the Proposer has, and will, address changes to security Requirements and needs.
9. System Maintenance and Monitoring – Provide responses to the items below regarding the Proposer’s approach to the Operation and Maintenance of the OBOS.

- b. Proposers shall describe their Maintenance and monitoring system and their approach to System monitoring and System Maintenance. Please address the following:
    - i. Proposer’s approach to vulnerability management, system scans and audits.
    - ii. Proposer’s approach to incident management.
    - iii. Proposer’s operational approach to response and repair times and how the Proposer will manage the contractual KPIs.
  - c. Discuss the Proposer’s approach to the Operation and Maintenance of the OBOS that will meet or exceed all Contract KPIs.
  - d. Discuss the Proposer’s plan to coordinate Operation and Maintenance tasks with the RTCS team and other interfacing entities.
  - e. Discuss the tools and User interfaces the Proposer’s solution will offer both the Authority and the Proposer’s support team in monitoring the system, receiving alerts when issues are identified (either automatically or manually), how issues are tracked (from capture through resolution and confirmed, and the Proposer’s approach to system monitoring to ensure the system meets availability and issue response Requirements, as stated in **Section 4, System Scope of Work and Requirements**.
  - f. Describe the screens and reporting that will be made available to the Authority that will assist the Authority's inefficient, periodic audit and verification of the performance and accuracy Requirements.
  - g. Describe the reporting capabilities of your system’s Maintenance and monitoring solution, including those required to support the performance reporting as described in **Section 4, System Scope of Work and Requirements**.
  - h. Describe the available tools and functionality within the System to enable and support validation and reconciliation of all Transactions throughout a Transaction’s life cycle. Also describe how errors, exceptions, missing, and failed Transactions are identified and reported.
10. Data backup and retention and Disaster Recovery – Proposers shall document their approach and architecture for data backups and Disaster Recovery. Please specifically address the following:
- a. Location of the proposed Disaster Recovery data center.
  - b. How the approach and architecture support the Recovery Time Objective (RTO) and Recovery Point Objective (RPO).
  - c. The process for switching from the Primary OBOS data center to the Disaster Recovery data center and, after resolution of the OBOS data center issues that required the switch to the Disaster Recovery data center, the process for switching back to the Primary OBOS data center. Proposers should include an expected timeframe for the implementation of each process.

Because the Authority is seeking an innovative, yet highly cost-effective OBOS solution, Proposers are encouraged to incorporate value-added items into this section of the Technical Proposal. Additional System functionality, features, and other value-added items, while not specifically required as part of this RFP, are desired by the Authority if offered by the Proposer as part of a Proposer’s solutions without additional cost to the Authority.



If included, Proposers shall clearly describe items they intend to provide, how the item(s) will benefit the Authority, and any potential implementation risks (e.g. time to completion impacts, increased complexities, additional testing, etc.) associated with integrating the features. Proposers shall also format these items in such that they are clearly distinguishable from technical aspects that address the Authority's minimum requirements.

#### F. PROPOSAL SECTION 4: PRELIMINARY PROJECT SCHEDULE

Proposers shall provide the following information:

1. Provide a Preliminary Project Schedule that includes all milestones and tasks up to the Go-Live of OBOS. The Preliminary Project Schedule shall clearly show the completion of all sequential testing, up to the Disaster Recovery Test within the number of Calendar Days from NTP as specified in **Section 1.1.3 Time for Completion** and conforms to the requirements as outlined in these Procurement Documents. The Preliminary Project Schedule shall be developed in Microsoft (MS) Project and shall be provided in both MS Project and PDF file formats in this Proposal Section 4. The Preliminary Project Schedule shall be resource loaded, display the critical path with identified predecessor and successor tasks, identify each milestone separately, and utilize "finish no later than" constraints. The Preliminary Project Schedule shall not contain hidden lag durations and must display available slack. All major elements of the Project Requirements shall be addressed in the Preliminary Project Schedule, including draft submissions, review cycles and final Approvals.

**Note:** The Preliminary Project Schedule, both PDF and MS Project, does not count towards the Technical Proposal page limitation. Proposers are to include the Preliminary Project Schedule within **Section 4: Preliminary Project Schedule** of the Technical Proposal.

2. The Proposer shall describe any challenges and risks related to meeting the Preliminary Project Schedule as well as the action to be taken by the Proposer to mitigate these risks, and describe any special assistance or anticipated needs that will be requested from the Authority to meet the schedule. Also, discuss the Proposer's approach to coordination with the new RTCS vendor, the legacy roadside system lanes and TOBS provider, and other external systems to which the OBOS will interface to ensure the scheduled Go-Live date is achieved.
3. Describe the Proposer's approach to ensuring that all sequential testing, up to and including the Disaster Recovery Test, are completed in the timeframe identified in **Section 1.1.3 Time for Completion**.
4. Address the Proposer's approach to developing processes, procedures, and communication techniques (e.g. meetings, issues tracking, and Quality Control) to coordinate with internal and external entities and Project stakeholders to ensure timely communication and resolution of problems that may impact the OBOS schedule.

#### G. PROPOSAL SECTION 5: ADHERENCE TO THE SCOPE OF WORK AND REQUIREMENTS, TERMS AND CONDITIONS AND REQUIREMENTS CONFORMANCE MATRIX

1. The Proposer must complete and submit the Excel version of the Requirements Conformance Matrix which is provided in .XLSX format in **Exhibit C, Form C-6**. The matrix covers each of the Requirements set forth in the Scope of Work and Requirements. The Authority shall provide shortlisted Proposers **Exhibit C, Form C-6** via a OneDrive File Share after posting of the Board Approval of Shortlist on the date and time provided in Table 1-1 Schedule of Events.



**Note:** Proposers are not to modify the technical Requirements listed in the Requirements Conformance Matrix in any way, and must use the worksheets and instructions provided within to complete the matrix. The Proposer shall submit a PDF version of the completed matrix in Section 5 of the Technical Proposal: Adherence to the Scope of Work and Requirements, Terms and Conditions and Requirements Conformance Matrix of the Technical Proposal as a PDF, in addition to submitting the Excel version of the matrix, as directed in the Technical Proposal submittal procedure.

2. Within Section 5 of the Technical Proposal, Proposers may identify and describe any assumptions or exceptions against any portion of the RFP. Assumptions and exceptions noted by the Proposer may be considered during the Proposal evaluation process at the sole discretion of the Authority. An “assumption” is a Proposer’s stated expectation or supposition that would require a change to an item within the RFP or the addition or deletion of an item with the RFP.

**Note:** The Proposer shall identify the specific part (e.g. section/subsection number, title and page number) of the RFP when they identify an exception or an assumption.

## H. PROPOSAL SECTION 6: TECHNICAL PROPOSAL APPENDICES

The Proposer shall submit the following materials in the form of Proposal Appendices within Section 6 of the Technical Proposal:

- Appendix 1 – Sample Reports

Proposers shall attach five (5) sample reports to provide the Authority with an understanding of the basic layout, format, and types of reports the Proposer’s System is capable of providing based on Scope of Work and Requirements.

**Note:** This appendix shall be restricted to five (5) pages with the Proposer providing one (1) report per page. The five (5) pages shall not count towards the fifty (50) page limit of the Technical Proposal.

- Appendix 2 – Key Personnel Resumes

Proposers shall attach resumes for proposed Key Personnel to provide the Authority with an understanding of the proposed staff’s experience and expertise at each position.

**Note:** Resumes are restricted to two (2) pages, and resumes shall not count towards the fifty (50) page limit of the Technical Proposal.

- Appendix 3 – Organizational Charts

Proposers shall attach organizational charts for both the Design and Implementation Phase of the Project through System Acceptance and the Operations and Maintenance Phase of the Project.

Note: The organizational charts shall not count towards the fifty (50) page limit of the Technical Proposal.

## I. PROPOSAL SECTION 7: FORMS AND SUBMITTALS

Proposers shall complete and submit properly completed forms as required in this section. Please refer to

the checklist in the table below. The checklist identifies the location of the form or the submittal requirement in the RFP and where the form or submittal is to be included in the Proposal.

Proposers shall not modify any of the forms unless specifically instructed by the Authority to do so. Completion of forms will be checked during the initial Pass/Fail screening of the submitted Proposals. Proposals not adhering to this requirement may be considered non-compliant.

**Table 1-6: Forms and Submittal Checklist**

Form #	Form/Submittal Name	Location in RFP	Location of Form/Submittal in Proposal
<b>Forms to be Submitted</b>			
C-1	Proposal Affirmation	Exhibit C-1	Technical Proposal Section 7
C-2	List of Subcontractors (if any)	Exhibit C-2	Technical Proposal Section 7
C-3.1	Conflict of Interest Statement	Exhibit C-3.1	Technical Proposal Section 7
C-3.2	Conflict of Interest Disclosure (if any)	Exhibit C-3.2	Technical Proposal Section 7
C-5	Key Personnel and Qualifications	Exhibit C-5	Technical Proposal Section 7
C-6	Requirements Conformance Matrix	Exhibit C-6	Technical Proposal Section 5
C-8	Acknowledgment of Receipt of Addenda	Exhibit C-8	Technical Proposal Section 7

**The Proposer shall not discuss or reveal elements of the Price Proposal in the written Technical Proposal.**

**1.20.4 DEMONSTRATION AND INTERVIEW OVERVIEW**

The Authority will invite shortlisted Proposers to participate in demonstrations and interviews. The demonstration and interview portion of the technical evaluation will provide an opportunity for the Evaluation Committee to further its understanding of the Technical Proposals and the Proposer’s product offering. Any such demonstrations and interviews will be conducted in accordance with Section 286.0113, Florida Statutes.

Demonstration and Interview Format

Each demonstration and interview will last 90 minutes, and the agenda will be as follows:

- Proposer Room Setup – 10 minutes, which will not count towards the Proposer’s time.
- Authority Announcements and Procurement Rules – 5 minutes, which will not count towards the Proposer’s time.
- Presentation – 20 minutes
- Demonstration of Transaction Processing System Currently in Use – 25 minutes
- Question and Answer Period – 45 minutes

Demonstration and Interview Rules:

- Proposers must provide their own equipment necessary to conduct the demonstration and interview (e.g. laptop computer with HDMI or C-port connection, computers, projector, screen, etc.)
- Proposers will be required to submit to the Proposer's designated OneDrive a copy of their presentation twenty-four (24) hours in advance of the first Proposer's demonstration and interview.
- Each demonstration and interview will be conducted in closed door sessions with the Proposer, Authority staff, the Evaluation Committee and the Authority's Technical Advisors.
- Each demonstration and interview will be recorded.
- Proposers will not be allowed to ask any questions to the Authority during the demonstration and interview.
- Proposers will not be allowed to provide any handouts or leave any materials behind for the Authority other than business cards.

The Authority reserves the right to modify the demonstration and interview agenda and the rules. The Authority's Procurement Office shall include each Shortlisted Proposer's specific time and date in the **Notice of Invitation to Demonstration and Interview** to be distributed by the Authority.

### 1.20.5 TECHNICAL PROPOSAL EVALUATION

1. **Evaluation Committee.** An Evaluation Committee will be established by the Authority to review, evaluate and score all responses submitted in response to this Solicitation. The Authority reserves the right to request additional information and clarification of any information submitted, including any omission from the original response.
2. **Material Content Conformance and Responsiveness.** Technical Proposals will be evaluated on the conformance of the material content and their responsiveness to the requirements of **Section 1.20, Phase 2-Technical Proposal Contents and Submission** and the degree of adherence to the Scope of Work and Requirements set forth in this document.
3. **Demonstration and Interview.** While each demonstration and interview will provide an opportunity for the Evaluation Committee to further its understanding of the Technical Proposals and the Proposer's product offering, they will also factor into the Evaluation Committee's technical evaluation and scoring.
4. **Technical Scoring.** The evaluation process will consist of a quantitative scoring and ranking of the Technical Proposals in order to ascertain which Proposer best meets the Authority's needs for the OBOS. Following the demonstration and interview period, the Evaluation Committee will complete and submit its technical scores to the Authority's Contracts and Procurement Manager. The scoring will consider both the Technical Proposal and the results of the demonstrations and interviews with maximum potential technical score points for each Technical Proposal as shown in **Table 1-7** below.
5. **Responsive.** Any Technical Proposal that is found non-compliant with the requirements of the RFP or that is scored below 55 out of 75 possible total points on the evaluation will be considered non-responsive and will not be considered further. The Authority shall not open any Proposer's Price Proposal that does not meet the minimum score of 55.

**1.20.5.1 TECHNICAL PROPOSAL SCORING**

The Evaluation Committee shall individually evaluate the written Technical Proposal submitted by each responsive Shortlisted Proposer based on the categories outlined in this section. Each Evaluation Committee Member shall score each Shortlisted Proposer individually. An average score for each Shortlisted Proposer shall then be computed by the Authority. Prior scoring from the ELOR shall not carry over to the Technical Proposal Scores.

The Evaluation Committee will meet to confirm their scores of the Technical Proposal on the date, time and at the location stated in **Section 1.2.3, Current Schedule of Events**. Proposers are not required to attend; however, the meeting is open to the public.

**Table 1-7: Phase 2 Technical Proposal Scoring and Evaluation Criteria**

<b>PHASE 2 Technical Proposal – Evaluation Criteria</b>		<b>Maximum Point Value</b>
	<b><u>Scored Categories:</u></b>	
1.	Proposer Experience and Qualifications	15
2.	Staffing and Key Personnel Qualifications	10
3.	Approach to Scope of Work	40
4.	Preliminary Project Schedule	10
	<b>Total:</b>	<b>75</b>

The 75 total points are for scoring the Technical Proposal only and will be combined with the Price Proposal to provide a final, overall score.

After the ranking of the Proposers by the Evaluation Committee, the Price Proposals will be opened.

## 1.21 PHASE 2 – PRICE PROPOSALS - PROVIDED TO SHORTLISTED PROPOSERS

### 1.21.1 GENERAL

The Price Proposal shall include all costs associated with both the Design and Implementation Phase and the Operations and Maintenance Phase of the Project. Price Proposals shall be evaluated on the total cost of ownership, including initial capital cost and the operations and Maintenance costs, as identified in the Price Proposal instructions.

Shortlisted Proposers must provide complete Price Proposals in the format (including sections and heading descriptions) as instructed in the Price Proposal submittal procedure below, as well as those instructions found in **Exhibit B – Price Proposal Form and Instructions**. The Authority shall provide shortlisted Proposers Exhibit B via a OneDrive File Share after posting of the Board Approval of Shortlist on the date and time provided in **Table 1-1 Schedule of Events**.

Any Price Proposal that is incomplete, contains significant inaccuracies or inconsistencies, or does not comply with the requirements herein, may cause the Proposer’s Proposal to be rejected by the Authority.

Note: Proposers shall submit Price Proposals separately from Technical Proposals by uploading their Price Proposal to the Proposer’s OneDrive folder as identified in Section 1.21.2.2.

### 1.21.2 PRICE PROPOSAL SUBMITTAL PROCEDURE

The Authority strongly urges Proposers to read the instructions carefully to avoid mistakes in preparation of the Price Proposal.

#### 1.21.2.1 PRICE PROPOSAL SUBMITTAL REQUIREMENTS

Please refer to the detailed Price Proposal instructions included below.

1. The Price Proposal must be uploaded to the OneDrive folder as designated and directed by the Authority’s procurement office by the due date and time provided in **Table 1-1: Schedule of Events**. The Authority will not accept or consider Price Proposals received after the due date and time. It is the Proposer’s responsibility to ensure all files are uploaded to the OneDrive folder.
2. Price Proposals shall be provided in searchable PDF (Adobe Acrobat) and MS Excel (\*.xlsx) formats. Both versions of the Price Proposal may be packaged into a single .ZIP file to upload to the Proposer’s assigned OneDrive folder.
3. The file format for the electronic MS Excel copy of the Price Proposal shall be Microsoft Excel 2016 or later.
4. The Price Proposal for this Solicitation shall indicate clearly that it is the Price Proposal for this Solicitation and clearly identify the Proposer’s name and address, contact number, Project number, and Project description. Price Proposals transmitted by facsimile, e-mail or mail are non-responsive and will not be considered. Only one (1) Price Proposal per legal entity is acceptable.
5. Proposers shall not include any assumptions in their Price Proposals. If the Proposer includes assumptions in its Price Proposal, the Authority may reject the Proposal.
6. Any costs for Work that is not provided in the Price Proposal will be assumed as no charge to the Authority.

### **1.21.2.2 PRICE PROPOSAL SUBMITTAL LOCATION**

Price Proposals must be received by the Authority via upload to the designated OneDrive folder by the time specified in **Table 1-1: Schedule of Events**.

The Price Proposal, and associated files, shall be secured and unopened until the date specified for opening of Price Proposals. Price Proposals received after the due date specified in this Procurement Document will not be considered.

It is solely the Proposer's responsibility to ensure that the Price Proposal is received by the Authority by the due date and time. Proposers are encouraged to provide themselves with ample time to ensure Price Proposals are received by the Authority on time. The Authority is not responsible for any Proposer's delay or failure to successfully transmit their Price Proposal on time.

Price Proposals will be publicly opened and the contents noted at the time and place specified in **Section 1.2.3, Current Schedule of Events**. Proposers or their authorized Agents are invited to be present during the Price Proposal opening.

### **1.21.3 FLORIDA SALES AND OTHER TAXES**

The Proposer is responsible for paying to the appropriate governmental entity all applicable taxes. Any applicable tax shall be included in the Price Proposal provided by the Proposer, whether or not yet effective or merely scheduled to go into effect.

### **1.21.4 PRICE PROPOSAL GUARANTY**

**Price Proposal Guaranty.** A Price Proposal Guaranty in an amount of not less than five percent (5%) of the Total Contract Amount shall accompany each Proposer's Price Proposal. The Price Proposal Guaranty shall be in the form of wire transfer to the Authority. The Authority will provide wiring instructions to shortlisted Proposers.

The surety on any Price Proposal Guaranty shall be a company recognized to execute bid bonds for contracts of the State of Florida. The Price Proposal Guaranty shall stand for the Proposer's obligation to timely and properly execute the Contract and supply all other submittals due therewith. If the Proposer improperly withdraws its Technical and Price Proposal, or if the Proposer receives a Notice of Intent to Award the Contract and fails to execute and deliver to the Authority any of the Contract Documents or information required by this RFP within thirty (30) Calendar Days after the Authority's written request, the Authority shall be entitled to the full amount of the Price Proposal Guaranty, not as a penalty, but in liquidation of and compensation for damages. The amount of the Price Proposal Guaranty shall be a liquidated sum, which shall be due in full in the event of default, regardless of the actual damages suffered. A Notice of Intent to Award may then be provided to the next highest scoring, qualified, responsible Proposer whose Technical and Price Proposal is responsive to the Request for Proposals. The Price Proposal Guaranty of all Proposers shall be released upon the Authority's award of the Contract.

### **1.21.5 PRICE PROPOSAL SCORING**

Price Proposal scoring is the process of examining a prospective price without evaluation of the separate cost elements. Price analysis is conducted through the comparison of price quotations submitted. The procurement office will assign points based on the formula for Price Proposal points identified herein. The Price Proposal shall be worth a maximum of 25 points.

The criteria for Price Proposal scoring shall be based on the following formula:

*(Lowest Price Proposal of all Proposals / Proposer's Price) x Maximum Price Points (25 points) = Proposer's Price Proposal Points*



## 1.22 FINAL SELECTION AND BASIS OF AWARD

### 1.22.1 FINAL SELECTION FORMULA

The Authority shall publicly open the sealed Price Proposals and calculate a final score using the following formula:

$$\text{Technical Proposal Score} + \text{Price Proposal Score} = \text{Final Score}$$

### 1.22.2 FINAL SELECTION PROCESS AND BASIS OF AWARD

After the sealed Price Proposals are received, the Authority will have a public meeting for the announcement of the Technical Proposal scores and opening of Price Proposals. At this meeting, the Authority will announce the score for each member of the Evaluation Committee, by category, for each Proposer and each Proposer's technical score. Following the announcement of the technical scores, the Price Proposals will be opened and the final scores calculated. The Authority will document the preliminary results as presented in the meeting.

The scoring of firms based on the Evaluation Committee's evaluation will be presented to the Authority's Board for consideration and Approval with a recommendation that the highest scored firm be selected on the date, time and at the location stated for the **Board Approval of Final Ranking and Award of Contract** referenced in **Table 1-1: Schedule of Events**. The Authority's Board of Directors will review the recommendation of the Evaluation Committee and will make a final determination.

The Authority's Board reserves the right to correct any errors in the evaluation and selection process that may appear to have been made. The Authority's Board is not obligated to award the Contract and may decide to reject all Proposals. If the Authority's Board decides not to reject all Proposals and award the Contract, the results will be posted no later than the date, time and at the location stated for the posting of the **Final Ranking** referenced in **Table 1-1: Schedule of Events**.

All decisions regarding the award of the OBOS Contract shall be made by the Authority's Board at open public meetings in accordance with the requirements of Florida Statutes, Section 286.011, and all interested parties are invited to attend such meetings.

### 1.22.3 REJECTION OF PROPOSALS

A Proposal may be considered irregular and may be rejected if, in the Authority's sole discretion, the Proposal contains any omissions, alterations of form, additions not called for, conditions, limitations, unauthorized alternate Proposals or other irregularities of any kind. In addition, the Authority reserves the right to reject for any reason, in its sole discretion, all Proposals at any time prior to full execution of a Contract and delivery of same to the Proposer.

#### 1.22.4 EXECUTION OF THE CONTRACT

Unless all Proposals are rejected, a Notice of Intent to Award the OBOS Contract will be issued to the apparent successful Proposer. The Notice of Intent to Award does not create a contractual relationship between the parties. Rather, it triggers the Proposer's obligation to, within thirty (30) Business Days of the date of Notice of Intent to Award (or other such time fixed by the Authority in writing), execute and deliver to the Authority all of the required Contract Documents, including, but not limited to the following:

- The OBOS Contract in the form contained in the Contract Documents
- The Performance and Payment Bond each for not less than the amounts specified in **Section 1.9, Payment and Performance Bond Requirements**
- The Power of Attorney and Countersignature for the Bonds
- The Certificate of Insurance evidencing the required insurance coverage

The above documents must be furnished, executed, and delivered to the Authority before the Contract Documents will be executed by the Authority. The OBOS Contract shall not be deemed awarded and shall not be binding upon the Authority until it has been executed by the Authority and a copy of the fully executed Contract Documents, including a Notice to Proceed (NTP), is delivered to the successful Proposer. The original copy will be retained in the Authority's Office.

In the event that the apparent successful Proposer fails to execute the awarded OBOS Contract and to submit the above documents within the time prescribed, the Authority may annul the award, causing the Proposer to forfeit the Price Proposal Guaranty to the Authority as liquidation of damages sustained. The Authority may then award the Contract to the responsible Proposer with the next highest, final score, re-advertise, or accomplish the Project using alternate resources.

Proposers are hereby informed that the award of this Contract is contingent upon the Authority's available funding. The Authority reserves the right not to proceed with the award of the Contract for any reason, including, but not limited to, if the lowest Total Contract Amount exceeds the Authority's estimates or budget or funding is otherwise unavailable. The Authority shall have the right to rescind its Notice of Intent to Award without liability, except for the return of the Price Proposal Guaranty to the Proposer, at any time before the Contract Documents have been fully executed by all parties and delivered to the Proposer.

## **Section 2**

# **Defined Terms and Acronyms**

<b>2</b>	<b>DEFINED TERMS AND ACRONYMS .....</b>	<b>1</b>
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## 2 DEFINED TERMS AND ACRONYMS

The following terms and acronyms apply to the RFP and the Contract.

### 2.1 DEFINED TERMS:

Defined Term	Definition
Access Control List (ACL)	A list of permissions associated with a system resource. An ACL specifies which Users or system processes are granted access to resources, as well as what operations are allowed on given resources.
Addendum/Addenda	A written interpretation, correction, clarification or change to the Procurement Documents considered necessary by the Authority.
Agent	A representative designated to act on behalf of another party (e.g. the Authority, Contractor, etc.).
Alert	The automatic identification and notification to designated parties of an OBOS failure or an anomaly that requires a response. These alerts may be generated by the OBOS or received by the OBOS from external entities.
Amendments	A message that either alters the data included in a UFM or transaction record or conveys the current status of a UFM or transaction record. Most Amendments are received by the OBOS from either the CCSS or Collections, however, there may also be outgoing Amendments from the OBOS to CCSS.
Approve	The term “Approve” and its variations (e.g., “Approval” or “Approved”), when capitalized in the Contract refer to acceptance of a process, document, condition, action or Deliverable in writing by the Authority. Approval by the Authority shall not be construed to mean endorsement or assumption of liability by the Authority nor shall it relieve the Contractor of its responsibilities under the Contract.

Defined Term	Definition
Approved, Baseline Project Schedule	The Approved, Baseline Project Schedule is the schedule that has been baselined and Approved by the Authority pursuant to the Contract. Upon Approval by the Authority, this schedule shall be maintained by the Contractor and used to track and measure all Project activities and progress.
Approved Schedule Maintenance Period	A specific period of time, requested by the Contractor and Approved by the Authority, for which the OBOS may be unavailable due to Maintenance. This may include both preventive Maintenance or Maintenance required to address an issue.
As-built System Design Document	An updated version of the System Design Document that reflects the OBOS as developed after System Acceptance.
Authority	The Tampa Hillsborough County Expressway Authority (the “Authority”) is an independent agency of the state that owns, maintains, and operates toll facilities within Hillsborough County.
Authority Project Manager	The Authority’s duly authorized representative designated to manage this Work and Contract.
Business Day	A weekday, excluding the Authority observed Holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.
Business Intelligence Software	Software that ingests, retrieves and analyzes data and presents it in User-friendly views such as reports, Dashboards, charts and graphs.
Business Rules	A set of operational and System rules that detail how the OBOS operates based on Business Policies and Procedures and the Authority practices.
Calendar Day	Every day, including weekends and Holidays. beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.

Defined Term	Definition
Centralized Customer Service System (CCSS)	The commercial back office owned by Florida’s Turnpike Enterprise. The CCSS provides account management, customer contact, and initial processing of Transactions for the Authority including customer service, revenue collection coordination and collection of Interoperable Agency Transactions and management duties for its Transponder and invoice programs.
Certification	The Contractor’s written verification and validation, with full supporting Documentation (including test results where applicable) that the Contractor has completed development of the Deliverable and certified its readiness for Approval, testing or review, as applicable.
Chargeable Failures	A failure to meet or exceed a KPI which is not specifically identified as a Non-Chargeable Failure. Invoice Adjustments will be assessed at the Authority’s discretion, for Chargeable Failures.
Cloud	A third-party system of off premises Hardware and software services to provide IT solutions.
Cloud-based	Any software, service or application that is hosted at a remote data center and accessed over the internet.
Collectible	Transactions that include a valid Transponder or readable license plate number.
Collections	The process of attempting to collect unpaid tolls via the Authority’s third-party collection agency.
Completed Transaction	A fully formed Transponder or Image-based Transaction (including manual or automated (e.g. ALPR/OCR) Image processing) ready for transmission to the Authority Operational Back Office System as further set forth in the Scope of Work and Requirements.



Defined Term	Definition
Configuration Table	A table that shows the current and historical values of table-driven variables in a system.
Conformed Scope of Work and Requirements Document (CSWRD)	The updated Requirements as agreed to by the Authority, as identified in the Scope of Work. When the term “Scope of Work and Requirements” is referred to in the executed Contract Documents it is referring to the CSWRD, unless otherwise indicated.
Contract	The legally enforceable contract between the Authority and the Contractor covering the RFP solicitation; <b>Section 4, Scope of Work and Requirements</b> ; the Contract Terms and Conditions; procurement questions and answers; the Contractor’s Proposal; any appendices, exhibits, and attachments thereto; and any written Contract Amendments that may be agreed to during the Contract Term
Contract Amendment	A change in the Contract executed in writing made by adding, altering, or omitting a certain part or term.  Changes to the Project scope, cost, time to complete all Work prior to Go-Live, and/or modifications to Contract Terms are examples of activities that may result in a Contract Amendment being necessary to capture and quantify a change pursuant to <b>Section 3, Terms and Conditions</b> .
Contract Documents	The documents forming the executed Contract between the Authority and the Contractor including all Addenda, attachments, exhibits and appendices thereto, any supplemental agreements, Contract Amendments, Deliverables, Contract modifications, and all provisions required by law to be inserted in the Contract, whether actually inserted or not.
Contract Term	The period of time during which the Contract between the Contractor and the Authority is in effect, including any authorized renewals and extensions.

Defined Term	Definition
Contractor	The person, Proposer, corporation or entity undertaking the execution of the Work with whom the Authority has entered into a Contract.
Contractor Project Manager	The Contractor’s duly authorized representative designated to manage the Contractor’s performance of the Work in accordance with the Contract.
Custom Software	Any source code developed or modified specifically for the Authority, System or application customizations, and configuration settings, internal embedded Software, firmware provided for the Authority and to meet the obligations of this OBOS RFP.
Dashboard	A visual display of collected information that is consolidated, arranged, and displayed on a screen(s) in an interactive and intuitive manner so that the information can be monitored and interpreted at a glance. A Dashboard should include access to drill down links for more detailed information, including, but not limited to, additional screens, static and drill-down reports.
Data Dictionaries	A centralized repository of information about data such as meaning, relationships to other data, origin, usage, and format.
Data Migration Plan	A document that describes the complete transition/data migration approach.
Days	Calendar Days, unless otherwise specified.
Deliverable(s)	All Documentation and any items of any nature submitted by the Contractor to the Authority for review and Approval pursuant to the terms of the Contract.
Demographics	Customer name and address information.

Defined Term	Definition
Deposit Materials	The tangible and intangible assets a Software developer places into escrow with a neutral third-party as set forth in the Software Escrow Agreement.
Design	The process, Documentation and Deliverables that define and establish all elements of the System, including but not limited to the architecture, components, modules, interfaces and data for the System to satisfy the Project Requirements. Also meant to refer to the completed Design Document. See “Design Documentation”.
Design Documentation	Documentation, including Deliverables required with this Project that describe, document and elaborate the Design for review and Approval by the Authority.
Design and Implementation Phase	The phase of the Project, which begins at Notice to Proceed and ends at System Acceptance, that includes but is not limited to, the System Design, development, installation, testing, transition, data migration, Go-Live and System Acceptance Testing.
Disaster Recovery	A set of processes and techniques used to help an organization recover from a disaster and continue or resume routine business operations.
Disaster Recovery Plan	A document that describes the process for continued OBOS operations and performance of OBOS and business functions in the event of an unplanned service disruption.
Disaster Recovery Test	A Formal Test to ensure that the OBOS can be returned to a fully operational state in the event of a catastrophic failure of the Primary OBOS.

Defined Term	Definition
Documentation	Material, Submittals and Deliverables that provide official information or evidence that serves as a record in accordance with the Contract.
Electronic Toll Collection (ETC)	Transaction associated with a Transponder.
Environments	<p>All Software, Hardware, network and data resources under the direct control of the Contractor used to support the OBOS. The OBOS Environments include the following as defined within the Scope of Work and Requirements.</p> <ul style="list-style-type: none"> <li>• Primary</li> <li>• Disaster Recovery</li> <li>• Development</li> <li>• Test</li> </ul>
Equipment	<p>Refers to the electronic appliances and services related to the System, including peripherals necessary to facilitate communication between internal and external devices, as well as servers, routers, switches, power units, network devices, hard drives, racks, other computer Hardware and components, cabling, and related or ancillary Equipment, machinery, and components necessary for the System to operate.</p> <p>See also “Hardware.”</p>
Expanded Letter of Response	The Expanded Letter of Response (ELOR) is a package of information Proposers are required to provide first as part of the two-phased approach to this RFP.
External Interface Test	A Formal Test to ensure that the OBOS will interface properly with the defined external entities (with the exception of the RTCS which will be performed separately).

Defined Term	Definition
Extra Work	Extra Work is a task or project identified as necessary by the Authority, which is outside of the Contracted Scope of Work, such as modifications or new functionality for the OBOS. Extra Work shall be contracted in the form of a Purchase Order. See also Purchase Order.
Fiscal Year	The 12-month period (July 1 to June 30) in which the Authority reports its financial activity.
Florida’s Turnpike Enterprise	A District of the Florida Department of Transportation that operates toll roads in Florida.
Formal Test	A Test which is required by the Scope of Work.
Go-Live	The time at which the OBOS becomes the system of record, transmitting Transactions and/or data to the CCSS and other interfaces as defined in the Contract.
Hardware	The physical components of the System, including but not limited to associated peripherals (e.g. internal pieces and connected external devices), firmware, electrical and communications cabling and other materials and supplies, furnished by the Contractor, necessary to provide Services pursuant to the Contract Documents.
Help Desk Support	Telephone and email support provided by the Contractor to assist Users with the operation of the OBOS. This is not to be confused with Maintenance issues reported by the Users.
Holiday(s)	Days that are designated by the Authority as Holidays for purposes of the Contract.

Defined Term	Definition
Hover-text	A common graphical User interface element in which, when hovering over a screen element or component with a cursor, a text box displays information about that element, such as a description of a button's function.
Image	The photograph of the license plate from an IBT Transaction.
Image Based Toll (IBT)	A Transaction where the license plate and Images of the license plate, rather than a Transponder, are used to process a Transaction.
Incomplete Transactions	Transactions sent to the OBOS from the RTCS that are not ready for processing by the OBOS (e.g., IBTs that do not have license plate data).
Interface Control Document (ICD)	A formalized description of the methods and structures involved in providing for and receiving output from a specific system. It outlines the communication protocols between interconnected systems.
Internet Protocol Security (IPSec)	A secure network protocol suite that provides authentication and encryption for IP packets, ensuring secure communication between two computers over an Internet Protocol network. It is commonly used in Virtual Private Networks (VPNs) to establish encrypted communication channels between remote sites.
Interoperable Agency	A toll or non-toll entity that has reciprocal rights for processing Transactions with the Authority. Interoperable agency customers may utilize their home account mechanism (Transponder or license plate) to travel on the Authority's facilities and have their home account charged for the Authority's toll.

Defined Term	Definition
Intrusion Detection and Prevention Services (IDP)	Software that monitors a computer network or system for signs of possible incidents, such as violations of security policies, provides alerts and attempts to stop the intrusion.
Invoice Adjustment	A reduction in the Contractor’s invoice as a result of non-compliance with KPIs.
ITOL	A toll that automatically posts to an account based on matching license plate characters rather than a Transponder.
Key Performance Indicator (KPI)	A subset of Requirements that will be subject to Invoice Adjustments if the Requirement/KPI is not met or exceeded.
Key Personnel	Staff designated as “key” in the Authority OBOS Contract, subject to the Approvals and conditions set forth therein.
Maintenance	Services performed by the Contractor pursuant to the Scope of Work and Requirements. May also be referred to as “Maintenance Services.” See also Operations and Maintenance Phase.
Maintenance Plan	A comprehensive document that describes the Contractor’s approach and methodology to maintaining the System and ensuring the on-going operations, and performance in compliance with the Requirements.
Maintenance Services	The Maintenance and related Services required to be furnished by the Contractor, pursuant to the Contract Documents. See Operations and Maintenance Phase.
Master Test Plan	A document that describes in detail the key features of the overall testing program including both Formal Tests and informal demonstrations.
Monthly Implementation Progress Report (MIPR)	A required status report to be submitted by the Contractor during the Design and Implementation Phase of the Contract.



Defined Term	Definition
Monthly Maintenance and Performance Report (MMPR)	A required status report to be submitted by the Contractor during the Operation and Maintenance Phase of the Contract.
Multi-Factor Authentication (MFA)	Authentication using two or more different factors to achieve authentication.
National Institute of Standards and Technology (NIST)	An agency of the United States Department of Commerce. NIST is responsible for developing, maintaining and disseminating national standards for measurement science, technology and security.
National Interoperability (NIOP)	Agencies that abide by the agreement for Nationwide Electronic Toll Collection Interoperability which allows for the exchange and settlement of tolling Transactions.
Network Time Protocol (NTP)	An internet protocol used to synchronize with computer clock time sources in a network.
Non-Chargeable Failure	A failure to meet or exceed a KPI which is identified in the SOW as a Non-Chargeable Failure.
Non-custom Software	Any Software that is not Custom Software, including routines, libraries, tools, methodologies, processes or technologies (collectively, the "Development Tools") created, adapted or used by the Contractor in its business generally, including any or all associated intellectual property rights, licensed to the Authority that shall be and remain the sole property of the Contractor.
Notice	A formal communication addressing legal and Contractual matters.
Notice to Proceed (NTP)	A written communication issued by the Authority to the Contractor authorizing the Contractor to proceed with the Contract work. NTP is also referred to as the date that the Contractor is advised by the Authority, in writing, to commence work.

Defined Term	Definition
On-premises (On-prem)	Any software, service or application that is housed within the physical location of an enterprise, rather than in a hosted remote hosted data center.
Operational Back Office System (OBOS)	The toll Transaction system of record that is specified within this procurement that includes all components, functionality, processes, and interfaces employed by the Contractor to comply with the Requirements of the Scope of Work. Also referred to as the OBOS and System.
Operational Readiness and User Acceptance Test	A Formal Test of a fully functional OBOS using TOBS as a conduit for roadside Transactions.
Operations and Maintenance Phase	Project phase that commences with Go-Live and includes all System monitoring, Transaction processing, Maintenance, and performance in accordance with the requirements of this Contract and ends with the termination of the Contract.
Optical Character Recognition (OCR)	A Software process that automatically recognizes characters without requiring human intervention.
Order of Precedence	The order in which Contract documents control in the event of a conflict or ambiguity in such documents.
Personally Identifiable Information (PII)	Information that can be used to distinguish or trace an individual's identity either directly or indirectly through linkages with other information.
Pervasive Defect	A persistent or reoccurring issue or problem.
Plan(s)	Contractor Deliverable(s) that identifies the approach to a particular aspect of the Work submitted for Approval in accordance with the Contract.
POSI List	A list of the status of all Transponders that could be used in the Authority toll system.

Defined Term	Definition
Preliminary Project Schedule	The initial Project Schedule developed by the Proposer for the Design and Implementation Phase of the Project that lists all tasks related to the Design, development, data migration, testing, installation and deployment of the System as defined in the procurement documents.
Price Proposal	Contractor pricing provided in response to this RFP and in accordance with the instructions provided herein.
Primary OBOS	The OBOS utilized during operations.
Priority	Ranking and assignment of importance used in the identification, monitoring, correction and reporting of System problems, bugs, and failures.
Procurement Documents	The documents that are included or referenced in this RFP or provided to Proposers, including without limitation as made applicable to this Solicitation through the RFP (including, but not limited to, the advertisement, the attachments, the Scope of Work and Requirements (Section 4), the draft Contract, Certifications, Addenda, and the documents, reports, and information referenced in such RFP unless otherwise explicitly stated
Production Database	The OBOS database utilized during operations.
Project	The total Work set forth and detailed within the Contract Documents.

Defined Term	Definition
Project Management Plan (PMP)	A document that describes how the Contractor will implement and manage the Project, including staffing, scheduling, communication procedures for controlling all correspondence, Submittals and other communications between the Contractor and the Authority, as well as communications with other third-party entities.
Proposal	Contractor’s entire submission in response to this RFP. See also Technical Proposal and Price Proposal.
Proposer	An entity that has submitted a Proposal to this RFP.
Purchase Order	The mechanism used by the Authority to document details such as scope, schedule and cost of tasks or Projects, outside of the executed scope of work, to modify or enhance the System during the term of the Contract pursuant to <b>Section 3, Terms and Conditions</b> . Purchase Orders shall be negotiated between the Authority and the Contractor prior to the Contractor performing any work to Design, develop, test or implement the modification and/or enhancement. See also Extra Work.
Quality Assurance (QA)	The documented guidelines, processes and procedures to ensure a product, System or document does not have defects.
Quality Assurance and Quality Control Program/Plan (QA/QC)	A document that describes the Contractor’s approach and processes related to the provision and implementation of Quality Assurance and Quality Control measures throughout the duration of the Project.
Quality Control (QC)	The execution of the processes identified in Quality Assurance.

Defined Term	Definition
Recovery Point Objective (RPO)	The point in time, prior to a disruption or system outage, to which data can be recovered (given the most recent replication of the data) after an outage. It is a factor of how much data loss can be tolerated during the recovery process.
Recovery Time Objective (RTO)	The maximum amount of time that a system resource can remain unavailable before there is an unacceptable impact on the operations.
Registration Stop/Release	Term to indicate when a vehicle registration that has been flagged or released related to the non-renewal or suspension for non-payment of tolls.
Reporting Database	A database that replicates all the data from the Primary OBOS Database in near real time, to be used for all reporting purposes.
Request for Proposal (RFP)	The mechanism used to communicate Procurement specifications and to request responses from potential Proposers. An RFP may also be referred to as a "Solicitation." See also "Procurement Documents" and "Solicitation."
Requirements	Each of the required Work activities in numbered form as set forth in <b>Section 4, Scope of Work and Requirements</b> that the Contractor shall perform, including but not limited to technical, functional, project management, Maintenance and Performance.
Requirements Conformance Matrix (RCM)	A document included as an appendix to the RFP, that lists all Scope of Work Requirements, which must be completed by the Proposer and submitted as part of the RFP Proposal response.

Defined Term	Definition
Requirements Traceability Matrix (RTM)	A document, created and maintained by the Contractor and Approved by the Authority, based on the SOW Requirements. The RTM is based on the Requirements of the RFP and is used to document and ensure the Contractor's compliance with the Requirements of the RFP and Contract, as well as ensure each Requirement is traced to and included within the System Design, and Formal Tests.
Risk Management Plan	A document that describes the process used by the Contractor to identify, assess, and mitigate potential risks associated with the Project.
Roadside Toll Collection System (RTCS)	The new system being procured by the Authority to be deployed on Authority toll roads comprised of Hardware and Software components needed to identify and record customer toll Transactions for the purposes of collecting a toll. The software for the RTCS may be managed by others. The OBOS will need to interface with the RTCS.
Roadside Toll Collection System Interface Test	A Formal Test to verify that Transactions from the RTCS are received in real time and translated by the OBOS into a form compatible with UFM production as well as Dashboard and report generation.
Roadside Toll Collection System Toll Site Commissioning Test	A Formal Test to verify the OBOS compatibility with the RTCS in a full production environment and to determine that the Transactions from each RTCS gantry, as they go live, are being properly received and processed by the OBOS.
Role Based Access Control	A method of controlling and restricting system access based on the authorized roles of individual Users.
Security and Network Penetration Test	A Formal Test to ensure that the OBOS is secure from external threats and to ensure compliance with NIST standards for external threats.

Defined Term	Definition
Security Information and Event Management (SIEM)	A security solution that helps organizations recognize and address potential security threats and vulnerabilities before they have a chance to disrupt business operations. SIEM systems help enterprise security teams detect User behavior anomalies to automate many of the manual processes associated with threat detection and incident response.
Service Organization Control (SOC) 2, Type 1 Audit	A review, conducted by a licensed Certified Public Accounting (CPA) firm or agency accredited by the American Institute of Certified Public Accounts (AICPA), which evaluates an organization's cybersecurity controls at a single point in time. The goal is to determine whether the internal controls put in place to safeguard customer data are sufficient and designed correctly.
Services	All Contractor activities required by the Contract. Also referred to as “Work.”
Simple Network Management Protocol (SNMP)	An internet standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
Single Sign-on (SSO)	An authentication scheme that allows a User to log in with a single ID to any of several related, yet independent, Software systems.



Defined Term	Definition
Software	All computer programs, media, procedures, rules and associated Documentation pertaining to the control and operation of the data processing and data storage for the System. Software includes all associated features and functions described in the Contract, including all Updates, derivative works, enhancements, modifications or upgrades thereto, and all error corrections, patches and bug fixes provided by the Contractor and which is made part of the System, as well as all related or ancillary data files, modules, libraries, tutorial and demonstration programs, and other components thereof, all source and object code, firmware and all Documentation.
Software Development Plan	A document that describes the Contractors’ approach, methods, and process for ensuring the successful Design, development, implementation, on-going operation and Maintenance of the OBOS Software.
Software Escrow Agreement	The agreement established to ensure the System Software developed for this Project (e.g. source code or other critical materials) are securely held by a neutral third-party to be released to the Authority under pre-defined conditions, thereby ensuring the continuity of business operations for the Authority. Also referred to as “Escrow Agreement.”
Solicitation	See “Procurement Documents” and “Request for Proposal.”
Subconsultant	See “Subcontractor.”

Defined Term	Definition
Subcontractor	Any person, firm, Proposer or corporation, other than the Contractor’s employees, who contracts to furnish labor, or labor and materials, at the Site(s) or in connection with the Services, whether directly or indirectly, on the Contractor’s behalf and whether or not in privity with the Contractor. Also referred to as “Subconsultant”.
Submittal	See “Deliverable”.
Succession Event	The Authority’s formal notification to the Contractor to enact its Succession Plan.
Succession Plan	A document detailing the method for the orderly transfer of knowledge, data, manuals, documents, assets, licensing, warranties, and business relationships from the Contractor to the Successor.
Successor	The entity taking over the OBOS operation and Maintenance at the end of the Contract Term. The Successor may be the Authority, the Contractor or another Service provider.
System	All Software and components necessary under the Contract to meet the Requirements of the System, as set forth in the Contract Documents.
System Acceptance	The process of the Authority providing Acceptance of the Design and Implementation Phase once the Contractor has met all obligations under the Contract for the Phase.
System Acceptance Test (SAT)	A Formal Test in which the entire OBOS is utilized and scrutinized to verify that the OBOS is performing and functioning as required to Accept the System.

Defined Term	Definition
System Administration Manual	A document that shall address the tasks and responsibilities of the system administrator for maintaining and monitoring the System so that it continuously operates and performs in accordance with the Requirements.
System Design Document (SDD)	Document Deliverable that includes but is not limited to the defined architecture, components, interfaces, Design and functionality for the OBOS to satisfy applicable Requirements in the Contract, which is submitted by the Contractor for Approval by the Authority.
Tax Collector	An authorized entity of FLHSMV to place and release Registration Stops.
Technical Proposal	Technical details provided by Proposers in response to this RFP, and in accordance with the instructions provided herein.
Tolling Operational Back Office System (TOBS)	Tolling Operational Back-Office System. This is the Authority’s legacy operational back-office system.

Defined Term	Definition
Total Contract Amount	<p>The total, firm, fixed price of the OBOS Contract for both the Design and Implementation and Operations and Maintenance Phases of the Project, inclusive of all costs for the Contractor to implement and achieve System Acceptance for the System and all costs necessary for the Contractor to operate, monitor and maintain the System in accordance with the Scope of Work and Requirements, including, but not limited to: insurance, labor, Software, Hardware, licenses, subscriptions, bonding costs, any Cloud-based costs, escrow costs, etc. as detailed in the Price Proposal submitted in response to this Solicitation.</p> <p><b>Note:</b> Extra Work included in the Price Proposal is for evaluation purposes only and shall not be included in the Total Contract Amount. Any Extra Work, and associated costs, shall be negotiated between the Authority and Contractor during the development of future Purchase Orders.</p>
Training Plan	<p>A document that describes the Contractor’s training program and process for the initial training of the Authority, as well as addressing periodic training that may be necessary whenever there are material changes in the OBOS functionality or features and/or changes to key the Authority staff throughout the Contract Term.</p>
Transaction	<p>The record of a vehicle's detection at a toll point that is to be processed by the OBOS. The transaction includes all subsequent status information that is associated with the original toll record including amendments.</p>
Transmission Control Protocol/Internet Protocol (TCP/IP)	<p>A suite of communication protocols used to interconnect network devices on the internet.</p>

Defined Term	Definition
Transponder	A radio frequency (RF) device mounted within or on a vehicle and read by the RTCS RF antenna and reader Equipment in a toll lane for the purpose of toll payment through automatic vehicle identification.
Uncollectable	Transactions that cannot be processed for payment due to the lack of a valid Transponder read or a readable license plate Image.
Unified Threat Management (UTM)	A security process in which multiple security features or services are combined into a single device within your network.
Universal Financial Message (UFM)	A toll Transaction message sent by the OBOS to the CCSS that provides all Transactional information needed for processing a toll
Updated Project Schedule	The Updated Project Schedule is an update made by the Contractor to the Approved, Baseline Project Schedule due to changes in Work that affected the milestones, dates and/or tasks of the Approved, Baseline Project Schedule. The Updated Project Schedule does not replace the Approved, Baseline Project Schedule and the associated incentives and damages that are associated with not meeting milestones as identified in the Contract.
Updates	Generally, refers to a patch released for Software to fix any identified bugs, errors or security issues; may also include providing support for new Hardware, as well as performance tuning.

Defined Term	Definition
User	The staff and representatives of the Authority and the Contractor who have been permitted role-based access to the System such that permission granted to Users to perform functionality or operations is based on an authorization matrix defining the User’s role. In terms of Requirements within the Scope of Work, User shall mean an individual authorized to perform the task.
User Authorization Matrix	A table that defines access permissions for Users and access roles.
User Manual	An intuitive, easy-to-follow guide that contains detailed instructions for the use and operation of the system including navigation flows, flow diagrams and application screenshots.
Virtual Private Network (VPN)	A mechanism for creating a secure, encrypted connection over the internet between a computing device and a computer network, or between two networks.
Warranty	An assurance by the Contractor that the Services in furtherance of this Contract are guaranteed by the Contractor and the Services provided will operate in conformity with specifications as defined in the Contract.
Work	The Services required by the executed Contract. This also includes all other labor, materials, Equipment and Services provided or to be provided by the Contractor for the proper execution and completion of the Contractor’s obligations. See also “Services”.
Work Product	See also “Deliverables”.

**2.2 ACRONYMS:**

Acronym	Meaning
ACL	Access Control List
AICPA	American Institute of Certified Public Accounts
API	Application Programming Interface
BOM	Bill of Materials
COTS	Commercial Off-the-Shelf
CPA	Certified Public Accounting
CSV	Comma Separated Values
CVE	Common Vulnerabilities & Exposures
DB	Database
DMT	Data Migration Test
DR	Disaster Recovery
DR/BC	Disaster Recovery / Business Continuity
DRDC	Disaster Recovery Data Center
DRT	Disaster Recovery Test
EIT	External Interface Test
ETC	Electronic Toll Collection (normally associated with a Transponder account)
FAT	Factory Acceptance Test
FIPS	Federal Information Processing Standards
FLHSMV	Florida Department of Highway Safety and Motor Vehicles
FTE	Florida Turnpike Enterprise
FTP	File Transfer Protocol
GLT	Go-Live Test
GUI	Graphical User Interface
HTML	Hyper Text Markup Language
HTTPS	Hypertext Transfer Protocol Secure
IBT	Image Based Toll (non-Transponder Transaction)



Acronym	Meaning
ICD	Interface Control Document
ICT	Toll Site Commissioning Tests
IDP	Intrusion Detection and Prevention Services
IP	Internet Protocol
IPSEC	Internet Protocol Security
ISO	International Standards Organization
KPI	Key Performance Indicators
LDB	Local Developing-Business
MB	Megabyte
MFA	Multi-Factor Authentication
MIPR	Monthly Implementation Progress Report
MMPR	Monthly Maintenance and Performance Report
MS	Microsoft
NIOP	National Interoperability
NIST	National Institute of Standards and Technology
NTP	Network Time Protocol
NTP	Notice to Proceed
OCR	Optical Character Recognition
ORT	Operational Readiness Test
OFCCP	Office of Federal Contract Compliance Programs
OWASP	Open Worldwide Application Security Project
PDC	Primary Data Center
PDF	Portable Document Format
PII	Personally Identifiable Information
PTES	Penetration Testing Execution Standards
QA	Quality Assurance
QC	Quality Control
RBAC	Role Based Access Control

Acronym	Meaning
RCM	Requirements Conformance Matrix
REST	Representational State Transfer
RFP	Request for Proposal
RIT	RTCS Interface Test
RPO	Recovery Point Objective
RPT	RTCS Parallel Test
RTCS	Roadside Toll Collection System, which is the new system being procured by the Authority.
RTM	Requirements Traceability Matrix
RTO	Recovery Time Objective
SAT	System Acceptance Test
SBE	Small Business Enterprise
SDD	System Design Document
SFTP	Secure File Transfer Protocol
SIEM	Security Information and Event Management
SOC	Service Organization Control
SOW	Scope of Work
SPT	Security Penetration Test
SSL	Secure Sockets Layer
SSO	Single Sign-on
TCP/IP	Transmission Control Protocol/Internet Protocol
THEA	Tampa-Hillsborough Expressway Authority
TLS	Transport Layer Security
UAM	User Authorization Matrix
UAT	User Acceptance Test
UFM	Universal Financial Message
UTM	Unified Threat Management
VBE	Veteran-Owned Business Enterprise
VPN	Virtual Private Network

# **Section 3**

## **Terms and Conditions**

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### 3 TERMS AND CONDITIONS

#### 3.1 CONTRACT TERMS AND CONDITIONS

##### 3.1.1 PAYMENT TERMS AND CONDITIONS

1. Payment terms are net thirty (30) Calendar Days after receipt of a correct invoice. The Authority is responsible for all payments under the Contract. A “correct” invoice is one that contains an accurate description of the amounts due, has no errors, includes all required supporting information including payment Approvals, and meets all other requirements for invoicing set forth in the Contract.
2. During the Design and Implementation Phase, for all Work related to the Design and Implementation Phase, up to and including System Acceptance, the Authority will pay the Contractor the price identified in the Price Proposal for the Design and Implementation Phase, less retainage. The Authority shall retain five (5) percent of each payment milestone amount. Retainage shall be paid in full to the Contractor upon the Authority providing the Contractor System Acceptance. The price in the Price Proposal is all-inclusive of costs and expenses including but not limited to travel and meals, and any and all labor, material, Software licenses, profit, overhead, insurance, taxes, and subcontractors costs incurred by the Contractor. For all Work related to the Design and Implementation Phase, the Contractor shall invoice the Authority based on milestone percentages set forth in **Exhibit A – Project Payment Milestones**.
3. During the Operation and Maintenance Phase, the Authority will pay the Contractor fixed monthly amounts as set forth in the Contractor’s Price Proposal, less any invoice adjustments for failure to meet KPIs as identified in the Contract. This amount is all inclusive of costs and expenses including but not limited to travel, meals, and any and all labor, material, third-party Maintenance and support agreements, all Hardware and Software support, Maintenance, renewal and replacement costs, all security Updates, profit, overhead, insurance, taxes and all Subcontractor costs. Adjustments to these payments may be made if the Contractor’s performance is below the required Key Performance Indicators.
4. Extra Work is anticipated to be completed during the life of the Contract and includes tasks or projects identified as necessary by the Authority, such as modifications or new functionality for the OBOS. All Extra Work shall be contracted in the form of a Purchase Order as set forth in **Section 3.2.2, Purchase Orders**. Purchase Orders shall be contracted based on the labor rates identified in the labor rate card in the Contractor’s Price Proposal. Labor hours and materials costs for Purchase Orders shall be negotiated between the Authority and the Contractor. While Purchase Orders may be negotiated as a fixed cost (e.g. lump sum) or as time and materials (T&M), the Contractor shall be required to provide a thorough breakdown of labor costs by staff positions and hours with associated costs being based on the labor rates provided in the Contractor’s Price Proposal. Any labor rates not included in the Contractor’s Price Proposal shall be negotiated between the Authority and the Contractor.

##### 3.1.2 CONTRACT TERM

The base term of the Contract, which includes the Design and Implementation Phase as well as the Operations and Maintenance Phase, is eight (8) years. At the sole discretion and option of the Authority,

the Contractor shall provide continued Services to the Authority in the form of renewal(s) for up to two (2), two (2)-year optional, operations and Maintenance periods. Such options shall be in accordance with the terms and conditions of this Contract. Any exercised renewal option shall specify the renewal price not to exceed the prices set forth in the Contractor’s Price Proposal for such option year(s), except that the Authority may negotiate lower pricing. Renewal is contingent upon satisfactory performance evaluations and subject to the availability of funds.

### 3.1.3 PROJECT INCENTIVES AND DAMAGES

#### 3.1.3.1 INCENTIVES AND LIQUIDATED DAMAGES

The Authority requires the Contractor to work with its Subcontractors, Agents, consultants, external entities, and other stakeholders, as directed, to ensure project milestones are met without time extensions. In the event the Contractor performs more quickly than required by the Approved, Baseline Project Schedule, the Authority will increase the amount paid for the critical milestones described below.

It is also agreed by the Parties to the Contract that in the event of a delay in completing specified milestones beyond required dates set forth in the Approved, Baseline Project Schedule, subject to extensions as authorized by the Authority, damage may be sustained by the Authority, and that it is or will be impracticable to determine the actual amount of the damage by reason of such delay. The parties therefore agree the Authority may impose liquidated damages, as described below, in the event of the Contractor’s delay in completing the specified milestones beyond the required date. For the purposes of this section, the use of the term “Days” means “Calendar Days.”

#### 1. Completion of Milestones 1 through 9

##### a. Performance Incentive for successfully completing payment milestones one (1) through nine (9)

If the Contractor successfully completes payment milestones one (1) through nine (9) of **Exhibit A – Project Payment Milestones**, fourteen (14) Calendar Days or more prior to the date set forth in the Approved, Baseline Project Schedule, the Authority will increase the percent payment associated with the Disaster Recovery Test by 5%, raising the milestone payment percentage from 5% to 10%.

**Note:** If the Contractor receives the incentive for this milestone, the subsequent milestone for System Acceptance will be reduced by the percent increase for this milestone. For example, if the Contractor achieves the incentive, the Disaster Recovery Test milestone payment percentage will be increased from 5% to 10%, and the System Acceptance milestone will be reduced from 10% to 5%. The Contractor will only be owed the remaining 5% of the total amount for the Design and Implementation Phase and the full retainage amount upon completion of the System Acceptance milestone. Refer to **Exhibit A – Project Payment Milestones** for Project payment milestones and associated percentages. The Authority shall provide shortlisted Proposers Exhibit A via email after posting of the Board Approval of Shortlist on the date and time provided in **Table 1-1 Schedule of Events**.

If the Contractor is unable to complete milestones one (1) through nine (9) in advance of the date specified in the Approved, Baseline Project Schedule by the required fourteen (14) Calendar Days, the Contractor is not entitled to any incentive increase in the milestone payment amount. No partial incentive for partial completion of any Work will be made.

b. Liquidated Damages for Delay in completing payment milestones one (1) through nine (9)

Should the Contractor be delayed in meeting the completion of milestones one (1) through nine (9) set forth in the Approved, Baseline Project Schedule, the Authority may assess liquidated damages in the amount of \$1,000 for the first Calendar Day, or portion of a Calendar Day, that the Contractor is late in completing the milestones.

For every subsequent Calendar Day, or portion of a Calendar Day, from day two (2) through sixty (60) the Contractor is late in completing milestones one (1) through nine (9), the Authority may assess \$2,500 for each Calendar Day, or portion of a Calendar Day, the Contractor is late in completing the milestones.

Beginning on day sixty-one (61) the Contractor is late in completing milestones one (1) through nine (9), the Authority may assess \$5,000 for each Calendar Day, or portion of a Calendar Day, due to the Contractor being late in completing the milestones.

2. **Provisions Applicable to All Performance Incentives**

The following applies to the possible performance incentive described in **Section 3.1.3, Project Incentives and Damages**.

- a. By accepting a performance incentive payment, the Contractor waives, releases, and discharges any claim for any payment for delay that may have occurred prior to the completion of milestones one (1) through nine (9), and for payment related to any Purchase Order arising from Work associated with any work prior to the completion of milestones one (1) through nine (9).
- b. If the Authority grants a Purchase Order, and there is a dispute over whether such Purchase Order relates to the incentive milestones, and the Contractor is otherwise entitled to receive an incentive payment, no such payment will be due until the parties resolve the dispute in accordance with **Section 3.3.4.8, Dispute Resolution**.

3. **Provisions Applicable to Liquidated Damages Related to Project Milestones**

- a. For delays in completing milestones one (1) through nine (9) solely caused by a Force Majeure Event (as defined in Section 3.3.4.13) beyond the reasonable control of the Contractor, the Contractor will be granted an extension of time, provided first that the Contractor notifies the Authority's Project Manager in writing of the causes of delay within five (5) Calendar Days from the beginning of any such delay. The Authority's Project Manager will then ascertain the nature of the delay and determine whether an extension of time is warranted, which determination will be final and conclusive. The Contractor has the burden of proof that the delay was beyond its control.
- b. In the event the Contractor believes it will be unable to meet the dates scheduled for completion of specified milestones and is subject to liquidated damages, the Contractor must notify the Authority in writing of the delay. Such notification must set forth the cause(s) of the delay and measures and actions the Contractor is taking to remedy or minimize the delay.
- c. The total and cumulative amount assessed by the Authority for liquidated damages for delay in completing milestones one (1) through nine (9) shall not exceed twenty-five percent (25%) of the total amount of the Design and Implementation Phase of the Contract as described in **Section 3.1.1, Payment Terms and Conditions**, the Contractor's Price Proposal and/or as modified by any Purchase Orders.



- d. The Authority may recover all liquidated damages by deducting the amount thereof from any monies due or that may become due to the Contractor.
4. In the event that liquidated damages are disallowed for any reason whatsoever, the Authority shall be entitled to actual damages incurred by the Authority, including any and all consequential or incidental damages resulting from delay in Contractor completing milestones one (1) through nine (9).
5. Nothing herein contained shall be construed as limiting the Authority's rights to recover from the Contractor any and all other amounts due or that may become due to the Authority, or any and all costs and expenses sustained by the Authority for improper performance hereunder, or for breach or breaches in any other respect including, but not limited to, defective workmanship or materials.
6. Nothing herein shall be construed to negate, abridge, or otherwise reduce any other right of indemnity that Authority may have as to any party or person. The indemnity obligation of the Contract shall not be limited by any liquidated damages or actual damages remedy, it being the intent of the parties for such remedies to be cumulative and mutually exclusive.

### **3.1.3.2 ACTUAL AND CONSEQUENTIAL DAMAGES**

1. The Contractor acknowledges that its performance after Go-Live, once the OBOS becomes the OBOS of record, is critical to the operation of the Authority in so much as the Services to be provided pursuant to the Contract directly involve the Authority's revenue and customer service. The Contractor agrees the actual and consequential damages set forth below, resulting from a failure of the OBOS, are fair and reasonable and shall be incurred by the Contractor in the event of unsatisfactory performance.
2. The Contractor shall reimburse the Authority for lost toll revenue, which the Authority identifies as having been lost due to the sole fault of the Contractor and cannot be reasonably recovered. The Authority may choose, in its sole discretion, to recover such lost toll revenue from the Contractor that has been demonstrated and documented by the Authority to have been lost due to the sole fault of the Contractor by deducting such amounts from any payments otherwise due and owing from the Authority to the Contractor. Lost toll revenue includes, but is not limited to, such events as lost Transactions; lost Images; lost or corrupt data; Transactions that are not able to be collected due to delays caused solely by the Contractor in Contractor processing; delays solely caused by the Contractor in escalation, sending the CCSS incorrect information resulting in Transactions posting to a customer account in error or to the wrong customer's account. Delays, as defined in this paragraph, shall be defined as any of the listed events occurring where the pursuit of the Transaction is more than ninety (90) Calendar Days after the lane exit date of the Transaction.

In the event the Authority incurs a loss of revenue due to the action or inaction of the Contractor, the Contractor shall be obligated to make payment to the Authority for all lost revenue and other direct damages associated with the loss. In the event that the Authority is unable to determine the amount of lost revenue because data is lost or otherwise unavailable, the Parties agree that lost revenue shall be based on historical revenue as determined by the Authority.

3. The Contractor shall be responsible for any other damages and costs incurred, which are the results of its improper handling of these Services, including but not limited to such things as the effort required (from the Authority's staff or consultants) to investigate and/or implement corrective actions, for special mailings to customers to notify them of issues with their toll Transactions due to Transaction gathering and processing failures and inaccuracies.
4. The Contractor shall be responsible for any damage to any property of the Authority arising out of, or alleged to have arisen out of, or in connection with the performance of Services pursuant to the Contract; the risk of loss or damage to any property of the Contractor's Agents, employees, and Subcontractors arising out of, or alleged to have arisen out of, or in connection with the performance of Services pursuant to the Contract.
5. Except for events resulting in Liquidated Damages being assessed for delay in completing Project payment milestones one (1) through nine (9), the Authority reserves the right to recoup actual damages from the Contractor whenever they occur throughout the term of the Contract. The Authority's failure or decision not to seek recovery for its damages from the Contractor for such event or any other event giving rise to damages.

#### **3.1.4 CONTRACTOR COOPERATION**

1. During the Contract, the Authority may undertake or award other agreements for additional Work. It is critical that close coordination with interfacing contractors occurs throughout the term of the Contract. The Contractor shall fully cooperate with the Authority and the parties to all other contracts and carefully integrate and schedule the Contractor's Work with said parties.
2. The Authority will expect the Contractor and all Subcontractors to comply with all technical specifications, special provisions and other terms and conditions applicable to the Contract at all times during the performance of the Contract. In the event of a dispute between contractors, clarifications may be sought from the Authority; provided Contract Terms, conditions and/or obligations shall remain in effect, except in instances wherein a Purchase Order or other Contract Amendment is duly executed in writing; however, contractors shall engage in all efforts to resolve disputes prior to participation of the Authority and further, such participation by the Authority does not imply or represent the Authority's responsibility for resolution or payment of claims that arise out of a dispute between two contractors.
3. **Interface Control Document Development and Ongoing Cooperation Requirements**

The Contractor shall fully cooperate with the Authority and its designated Agents, consultants, stakeholders, and/or contractor(s) as necessary to develop and/or support all required Interface Control Documents (ICDs). The ICDs shall specify all specifications, parameters, System Requirements, programming interfaces and all other elements to effectively and completely interface to RTCS components and other external interfaces being provided by the various interfacing contractors and/or agencies.

#### 4. Additional Coordination and Cooperation Requirements

Should problems in coordination with other contractors occur, the Contractor shall make the Authority aware of these problems immediately and shall take steps to address the problems and mitigate any delays or additional costs. The Contractor shall not commit or permit any act that will interfere with the performance of Work by any other contractor or by the Authority.

### 3.1.5 WARRANTIES

#### 3.1.5.1 *SYSTEM WARRANTY DURING OPERATIONS AND MAINTENANCE PHASE*

A full System Warranty shall be provided by the Contractor on all System Equipment, Hardware and Software for the term of the Contract and any extensions thereof regardless of whether the Contract implements a Cloud-based and/or On-premise based solution. As a result, the Authority shall not pay any additional charges above the prices set forth in the Contractor's agreed-to Price Proposal for the Design and Implementation Phase or the Operations and Maintenance Phase Work, other than Work related to agreed-to Force Majeure Events or agreed-to out of scope work requested by the Authority, pursuant to the Contract. Notwithstanding the foregoing, in the period prior to Go-Live, all operations and Maintenance responsibilities and Work shall also be at the Contractor's sole expense. Such Work shall be at no charge to the Authority and shall include replacement on any unit of Equipment, Hardware or Software, or part or component thereof, (including Equipment Upgrades, Software patches/fixes, Software/System enhancements, Service Provider System modifications, etc.) and/or revision of Software defects or Software which the Authority deems defective or insufficient, or which the Authority deems to have failed to comply with the Scope of Work and Requirements. All transportation, labor and fees associated with restocking canceled or returned orders shall also be the responsibility of the Contractor. All defective Equipment replaced by the Contractor will become the property of the Contractor.

Contractor shall ensure that each third-party service provider engaged by Contractor (a "Service Provider") to provide software services ("Software Services") or Cloud-based Systems ("Service Provider Systems") represents, warrants and covenants as follows: (a) the Software Services and the Service Provider Systems will perform in accordance with applicable Specifications contained in the latest release of the Documentation; (b) it is the owner of or is duly authorized to provide all Services, including all Software Services and the Service Provider Systems; (c) it has the right to grant the licenses set forth in this Contract, and generally to provide the Software Services and Service Provider Systems as contemplated by this Contract; (d) the Software Services and the Service Provider Systems do not and will not infringe or otherwise violate any statutory, common law or other rights of any Third-Party in or to any Intellectual Property Rights therein; and, to Service Provider's knowledge, no Third-Party has asserted, is asserting, has threatened, or has any reasonable basis to assert a claim of any of the foregoing; (d) the Software Services, the Service Provider Systems, and all supporting Documentation will be complete and will enable Customer personnel, with appropriate skills and experience, to fully utilize the Service Provider Systems and the Software Services for all purposes for which they are intended; and (e) the Software Services and the Service Provider Systems, as applicable, will be virus-free and will not include any Trojan horses, trap doors, lock outs, interrupt mechanisms or similar disabling Software or code that does or can disable, damage, corrupt, interfere with or delete any element of Software, data, computer or electronic records or files of Customer or any Affiliate of Customer including any such code that allows Service Provider or any Third-Party, including any Service Provider Personnel, to access or to perform any unauthorized operations on Customer's Systems or the Systems of a Customer Affiliate without Customer's prior authorization in each instance.

After expiration and termination of the Contract, Contractor shall have no liability with respect to any representation or Warranty set forth in this **Section 3.1.5, Warranties**, except with respect to 3<sup>rd</sup> party warranties that are still in effect shall be transferred to the Authority and the Authority may make claims for latent defects.

### **3.1.5.2 DESIGN AND SOFTWARE WARRANTIES**

1. Upon Approval of the System Design, the Contractor shall assume responsibility for the Design to the extent that if the OBOS does not meet the Key Performance Indicators of this Contract, the Contractor shall be responsible for the costs of any redesign and/or any other costs associated with the sub-standard performance. The Contractor shall be responsible for coordinating with the Authority to review and Approve any necessary system redesign.
2. The Software shall operate in accordance with the Scope of Work and Requirements. The Contractor warrants that, upon Go-Live and for the Contract Term, thereafter, including any extensions thereof, the Software and each module or component and function thereof shall:
  - a. be free from defects in materials and workmanship when used in accordance with applicable Documentation;
  - b. remain in good working order, be free from viruses; trap doors; disabling devices; Trojan horses; disabling codes; back doors; time bombs; drop-dead devices; worms, and any other type of malicious or damaging code or other technology or means which has the ability to interfere with the use of the System by the Authority or its designees, or permit access to the Authority's computing systems without its knowledge or contrary to its System connectivity policies or procedures;
  - c. operate and function fully, properly and in conformity with the warranties in the Contract,
  - d. operate fully and correctly in the operating environment, including by means of the full and correct performance of the Software, and all Updates, enhancements, or new releases of the Software, on or in connection with the Equipment, any Updates, enhancements, or new releases to such Equipment, and any other Software used by or in connection with any such Equipment;
  - e. be fully compatible and interface completely and effectively with external interfaces and interfacing entities, the Equipment, including other Software programs provided to the Authority hereunder, such that the other Software and Equipment combined will perform and continuously attain the Key Performance Indicators as specified in the Scope of Work and Requirements, and
  - f. accurately direct the operation of the System, as required by the Scope of Work and Requirements, and the descriptions, specifications and Documentation set forth therein and herein.
3. During the term of the Contract, including any extensions, the Contractor shall provide Services to maintain the Software provided hereunder in good working order, keeping it free from defects such that the System shall perform in accordance with the Contract and the warranties set forth herein.

4. The Contractor shall provide technical support and shall remedy any failure, malfunction, defect or non-conformity in Software, in accordance with the Contract, but in any event not later than the deadline(s) in the Scope of Work and Requirements for Maintenance and Repair Times.
5. The Contractor shall promptly provide Notice to the Authority in writing of any defects or malfunctions in the Software provided hereunder, regardless of the source of information. The Contractor shall promptly correct all defects or malfunctions in the Software or Documentation discovered and shall promptly provide the Authority with corrected copies of same, without additional charge. If Software can only be corrected in conjunction with additional or revised Hardware, the Contractor shall provide such Hardware to the Authority, and the cost of such Hardware shall be borne solely by the Contractor.
6. No Updates or enhancements shall adversely affect the performance of the System, in whole or in part, or result in any failure to meet any Requirements.
7. The Contractor shall ensure continued satisfactory performance of the Software in accordance with the Key Performance Indicators.
8. With regard to Software, the Contractor shall provide Software Services in accordance with the Contract.
9. The Contractor shall be responsible for obtaining and maintaining agreements, licenses and/or subscriptions for the implementation and Maintenance of third-party Software throughout the term of the Contract. The Contractor shall secure such agreements, licenses and/or subscriptions for the same duration and upon the same terms and conditions as the Maintenance provisions between the Contractor and the Authority. All third-party contracts, subscriptions and licenses shall be assignable to the Authority. The Contractor shall also be responsible for monitoring and managing all Software license and subscription renewals on behalf of the Authority, and shall not let any agreement, license or subscription expire without express written direction from the Authority.
10. In the event that the Software does not meet or exceed the Key Performance Indicators, the Contractor is obligated to promptly repair or replace such Software at the Contractor's sole cost and expense or, if expressly agreed to in writing by the Authority, provide different Equipment or Software or redesign, and perform Services required to promptly meet the Key Performance Indicators set forth in the Contract.
11. In the event of any defect in the media upon which any tangible portions of the Software are provided, the Contractor shall provide the Authority with a new copy of the Software.
12. Without releasing the Contractor from its obligations for Warranty (during an applicable Warranty period), support, or Maintenance of the Software, the Authority shall have the right to use and maintain versions of the Software provided by the Contractor which are one or more levels behind the most current version of such Software and to refuse to install or delay installation of any Updates or enhancements if, in the Authority's discretion, installation of such Updates or enhancements would interfere with its operations. The Contractor shall not, however, be responsible or liable for the effect of any error or defect in the version of the Software then in use by the Authority that occurs after the Contractor has both (i) offered, by written Notice to the Authority, a suitable correction (by way of Update, enhancement or otherwise) of such error or defect and (ii) provided the Authority

a reasonable opportunity to implement such existing correction, provided that the Contractor establishes that neither the Implementation nor the use of such correction would limit, interfere with, adversely affect, or materially alter the functionality or quality of the System.

13. All provisions of this **Section 3.1.5.2, Design and Software Warranties** referring or relating to obligations to be performed pursuant to an applicable Warranty period that extends beyond the term hereof, shall survive the expiration, cancellation, or termination of the Contract.

### ***3.1.5.3 THIRD-PARTY WARRANTIES***

In addition to the foregoing warranties, the Contractor shall, upon completion of the Work, assign to the Authority, and the Authority shall have the benefit of, any and all Subcontractors' and suppliers' warranties and representations with respect to the System and Services provided hereunder. The Contractor's agreements with Subcontractors, suppliers and any other third-parties shall require that such parties (a) consent to the assignment of such warranties and representations to the Authority, (b) agree to the enforcement of such warranties and representations by the Authority in its own name, and (c) furnish to the Authority, the warranties set forth herein. At the Authority's request, the Contractor shall provide supporting Documentation that confirms that these warranties are enforceable in the Authority's name.

### ***3.1.5.4 SERVICES WARRANTIES***

The Contractor warrants that all Services shall be performed in a high-quality, professional manner by qualified and skilled personnel in compliance with the Authority's Requirements as set forth in the Contract. In the event the Authority determines, in its sole discretion, that any Services do not conform to the foregoing Warranty, the Authority shall be entitled to elect one of the following remedies: (i) re-performance of the Services by the Contractor until the Authority deems them to be in conformity with the Requirements and Warranty in this Section 3.1.5.4, at no charge to the Authority; (ii) refund from the Contractor for all fees paid in connection with the Services, which the Authority deems were not as warranted, subject to the provisions of the Contract such that the Contractor is not required to refund fees for non-provision of Services for which liquidated damages have been assessed, (iii) reimbursement by the Contractor for the Authority's costs and expenses incurred in having the Services re-performed by the Authority or someone other than the Contractor. Notwithstanding the foregoing, nothing in this **Section 3.1.5.4, Services Warranties** shall be construed to limit the Authority's rights pursuant to **Section 3.2.5.2, Termination for Cause**.

### ***3.1.5.5 DATA ACCURACY***

The Contractor acknowledges and understands that the data and/or information it collects, processes and/or provides to the Authority and the external interface partners will be relied upon by the Authority and other persons or entities that are now or will in the future be under Contract with the Authority. Should information derived and provided by the Contractor be inaccurate due to a failure by the Contractor to perform its obligations under the Contract, and cause the Authority to incur damages or additional expenses, the Authority shall notify the Contractor and the Contractor shall immediately place any applicable insurance carrier on Notice of a potential claim. This provision shall survive termination of the Contract, and the Contractor agrees to waive any applicable limitation periods consistent with enforcement of this provision.



### ***3.1.5.6 ADDITIONAL WARRANTIES***

The Contractor warrants the following:

1. All guarantees and warranties made herein are fully enforceable by the Authority acting in its own name.
2. The Equipment and Systems the Contractor installs and places into operation will not result in any damage to existing facilities, walls or other parts of adjacent, abutting or overhead buildings, structures, surfaces, or any physical/mental damage to any individual utilizing any units(s) of Equipment.
3. All provided Equipment is new and unused.

### ***3.1.5.7 PERVASIVE DEFECTS***

The Contractor agrees to promptly remedy, at no cost to the Authority, any defects determined by the Authority to be Pervasive, such that if the Authority determines that any Equipment, component, sub-component or Software is experiencing continued or repetitive failure, the Contractor agrees that a “Pervasive Defect” shall be deemed to be present in such affected types of Equipment or Software. The Contractor shall promptly, and at its own expense, perform an investigation of the issues and prepare a report that includes a reason for the failure and its Plan for remedy. Such correction shall be in a time and manner satisfactory to the Authority and that permanently addresses the problem and corrects the defect so that such defect does not continue to occur.

The obligations set forth in this section shall be in addition to any Warranty obligations set forth in the Contract. After expiration and termination of the Contract, Contractor shall have no liability whatsoever with respect to any representation or Warranty set forth in this Section **3.1.5.7, Pervasive Defects**, except with respect to latent defects and claims made by the Authority whereby the basis for such claim arose prior to such expiration and termination.

### ***3.1.5.8 GENERAL GUARANTY***

Neither acceptance of the System and Services or payment therefor, nor any provision in the Contract, nor partial or entire use of the System and Services by the Authority shall constitute an acceptance of System and Services not performed in accordance with the Contract or relieve the Contractor of liability for any express or implied warranties or responsibility for faulty materials or workmanship.

## **3.1.6 SOFTWARE AND LICENSE**

A Software license and escrow agreement shall be required for this Contract, and shall include the Terms and Conditions set forth below in this section, and **Section 3.1.7, Escrow**.

### ***3.1.6.1 DESCRIPTION OF LICENSE***

The Contractor hereby grants to the Authority, for purposes of operating the System, an unlimited, fully-paid-up, royalty-free, perpetual, universal, irrevocable, non-exclusive license: (i) to use, maintain, disclose, modify, adapt, and improve any and all Software and other Equipment; notwithstanding the foregoing, any modifications not made by the Contractor, its Subcontractors or Agents shall be subject to Contractor validation in order to continue to maintain applicable warranties. (ii) to use all resulting versions,

modifications, adaptations and improvements of any and all Software and other Equipment; (iii) to make, have made, use, distribute and display copies, reproductions, and derivative Works of any and all Software and Documentation; (iv) to use all Contractor Property (defined below) in connection with the Authority's use of any and all Software and other Equipment; and (v) to permit any other person or entity providing Services to the Authority to do any and all of the foregoing (i) through (iv). "Contractor Property" shall mean all intellectual property, technology, know-how, methodologies, works of authorship, Software, Systems, processes, applications, technical data specifications and other materials in use by the Contractor pre-existing the Contract, or created, acquired, or licensed by the Contractor separately from the Contract, or created in the performance of the Contract which are not specific to the Authority, including any modifications, enhancements, improvements, or derivative works. The foregoing license includes the right to use any Systems, processes, methods, applications, technical data specifications and other Documentation (including those provided by the Contractor, any third-party or currently used by the Authority) comprised or practiced by the Equipment or that are necessary or useful to operate the System.

### **3.1.6.2 SCOPE OF LICENSE**

All rights, licenses, and subscriptions granted to the Authority under the Contract shall be exercisable at any time by the Authority and each of the persons and entities provided Services by the Contractor. The license shall permit the Authority to add at any time, entities or persons to receive Contractor Services with no additional license or subscription fees charged to the Authority. The foregoing shall apply to the Authority, and such persons and entities and their respective successors and assigns. Contractor shall include, without requirement of any payment or provision of any consideration other than or in addition to that which is expressly specified by the Contract, the right of the Authority and each other person or entity referred to in this subparagraph:

1. to utilize the System (including all Equipment and related Documentation), in whole or in part, in connection with Services provided by or to the Authority or such other persons or entities, without regard to present or future location, including for purposes of technical support, Maintenance or repair;
2. to make multiple copies of the Software and related Documentation for purposes of the exercise of the Authority's rights and licenses hereunder;
3. to use the Software and related Documentation on or in connection with multiple processors, components obtained by or on behalf of the Authority from the Contractor or third-parties, and Systems (including the System) utilized by the Authority or any person or entity providing Services to or on behalf of the Authority;
4. to maintain and modify the Software subject to the Contractor validation set forth in **Section 3.1.6.1, Description of License** and to use the resulting versions and modifications thereof;
5. to sell or distribute User technology, device or method permitting public access to and use of the User interface of the System, to any person or entity; and
6. to exercise any and all such rights and licenses under the Contract through the Services of its employees, Agents, independent contractors or Subcontractors, or such other persons or entities as it may employ or engage in its own discretion, and to disclose the Software and related Documentation, in whole or in part, to such persons or entities for such purposes.



For the avoidance of doubt, nothing in the Contract shall restrict or preclude the Authority from providing to any other person or entity, or any such other person or entity from using, any of the Equipment, Software or other materials provided to the Authority hereunder by the Contractor, in connection with the provision of any products or Services to or on behalf of the Authority, or to any person or entity providing Services to or on behalf of the Authority.

Contractor Property shall remain the property of the Contractor and nothing in the Contract shall be construed to provide title to such Contractor Property to the Authority, subject to the license or subscription provided in the Contract.

### ***3.1.6.3 SOFTWARE AND INTELLECTUAL PROPERTY***

The Contractor represents that Custom Software (developed or modified) may be necessary under this Contract. If the Contractor develops or modifies the Software to meet the Deliverables under this Contract it will provide to the Authority all firmware upgrades, service releases, and patch releases as part of this Contract subject to the Contractor's commercial terms for Software/firmware license rights to embedded intellectual property. Separate and apart from the embedded intellectual property rights the Contractor has licensed to the Authority, the following provisions shall apply.

### ***3.1.6.4 INTERNAL/EMBEDDED SOFTWARE LICENSE***

1. This section on Software licenses applies to any source code developed or modified for the Authority, System or application customizations and configuration settings, internal embedded Software, firmware and unless otherwise provided in this, the Authority's OBOS RFP, or in an attachment hereto ("Custom Software").
2. Deliverables, as used herein, include "Work Product" and shall comprise all Project materials, analyses, conclusions, opinions, recommendations, ideas, techniques, know-how, Designs, programs, enhancements, goods, all Custom Software, Software licenses/subscriptions, technical information, specifications, drawings, records, Documentation, and data created during the performance or provision of Services hereunder. Deliverables are the property of the Authority. Contractor Property licensed to the Authority shall be identified to the Authority by the Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Embedded Software or firmware shall not be a severable Deliverable. All Contractor Property is the property of the Contractor ("Licensor") and is licensed nonexclusively to the Authority in perpetuity, at no additional license fee, pursuant to the terms of the Software license contained herein.
3. Work Product Deliverables shall be considered Works made for hire (as that term is used in the United States Copyright Act, 17 U.S.C. Section 101, or in analogous provisions of other applicable laws) provided by Contractor for the Authority and shall belong exclusively to the Authority and its designees, unless specifically provided otherwise by mutual agreement of the Contractor and the Authority. If by operation of law any of the Work Product, including all related intellectual property rights, is not owned in its entirety by the Authority automatically upon creation thereof, the Contractor agrees to assign, and hereby assigns to the Authority and its designees the ownership of such Work Product, including all related intellectual property rights. The Authority shall grant the Contractor a royalty-free, fully paid worldwide, perpetual, irrevocable, non-exclusive license to use Custom Software and any other material or information that might be considered Work Product in connection with other Contractor Software improvements. The Contractor

agrees to provide, at no additional charge, any assistance and to execute any action reasonably required for the Authority to perfect its intellectual property rights with respect to the aforementioned Work Product.

Notwithstanding any provision of this Contract to the contrary, any Contractor Property including, but not limited to, any Software which is not Custom Software, routines, libraries, tools, methodologies, processes or technologies (collectively, the "Development Tools") created, adapted or used by the Contractor in its business generally, including any or all associated intellectual property rights, shall be and remain the sole property of the Contractor, and the Authority shall have no interest in or claim to such Contractor Property, Work, materials or Development Tools, except as necessary to exercise its rights in the Work Product. Such rights belonging to the Authority shall include, but not be limited to, the right to use, execute, reproduce, display, perform and distribute copies of and prepare derivative works based upon the Work Product, and the right to authorize others to do any of the foregoing, irrespective of the existence therein of Contractor Property, materials and Development Tools, except as specifically limited in the Solicitation documents or any attachment or exhibit to this Contract.

The Contractor and its Subcontractors shall be free to use and employ their general skills, knowledge and expertise, and to use, disclose, and employ any generalized ideas, concepts, knowledge, methods, techniques or skills gained or learned during the course of performing the Services under this Contract, so long as the Contractor or its Subcontractors acquire and apply such information without disclosure of any confidential or proprietary information of the Authority, and without any unauthorized use or disclosure of any Work Product resulting from this Contract.

4. Deliverables comprising goods, Equipment, or products (Hardware) may contain Custom Software, embedded Software or firmware that is generally not sold or licensed as a severable Software product. Software may be provided on separate media or may be included within the Hardware at or prior to delivery. Such Software is proprietary, copyrighted, and may also contain valuable trade secrets and may be protected by patents. The Contractor grants the Authority a license to use the source and object code (or any replacement provided) on, or in conjunction with, the Deliverables purchased, or with any System identified in the Solicitation documents. The Authority shall have a worldwide, nonexclusive, fully-paid up, royalty-free, perpetual, irrevocable sub licensable license to use such Software and/or Documentation for its internal use. The Authority may make and install copies of the Software to support the authorized level of use described in this Contract. Provided, however that if the Hardware is inoperable, the Software may be copied for temporary use on other Hardware. The Authority shall promptly affix to any such copy the same proprietary and copyright Notices affixed to the original. The Authority may make one copy of the Software for archival, back-up or Disaster Recovery purposes.
5. Outsourcers, facilities management or service bureaus retained by the Authority shall have the right to use the Deliverables thereof to maintain the Authority's business Operations, including data processing, for the time period that they are engaged in such activities, provided that the Authority gives Notice to Contractor of such party, site of intended use of the Deliverables, and means of access.

Any third-party with whom the Authority has a relationship to perform an Authority function or business operation shall have the temporary right to use Deliverables, provided

that such use shall be limited to the time period during which the third-party is using the Deliverables for the function or business activity.

6. The parties acknowledge and agree that the Authority shall own all rights, title and interest in and to the copyright in any and all Software, technical information, specifications, drawings, records, Documentation, data and other Work Products first originated and prepared by the Contractor for delivery to the Authority ("Deliverables"). To the extent that any Contractor Property or Contractor Technology (defined below) is contained in any of the Deliverable, the Contractor hereby grants the Authority a royalty-free, fully paid worldwide, irrevocable, perpetual, non-exclusive license to use such Contractor Property and Contractor Technology in connection with the Deliverable for the Authority's business purposes. Contractor shall not acquire any right, title and interest in the copyrights for goods, any and all Software, technical information, specification, drawings, records, Documentation, data or derivative Works thereof, or other Work Products provided by the Authority to Contractor.
7. As the Authority's business operations may be altered, expanded or diminished, licenses or subscriptions granted hereunder may be transferred or combined for use at an alternative or consolidated site not originally specified in the license or subscription, including transfers between Agencies ("permitted license transfers"). The Authority will not have to obtain the approval of the Contractor for permitted transfers but must give thirty (30) Calendar Days prior written Notice to Contractor. There shall be no additional license, subscription or other transfer fees due to the Contractor.
8. The Contractor shall provide to the Authority an executable copy of all Software developed for the Authority, including source code Documentation and application information. Included with the provision of source code, the Contractor shall demonstrate to the Authority that the provided executables are the correct Software for the Systems as delivered.

### ***3.1.6.5 PATENT, COPYRIGHT AND TRADE SECRET PROTECTION***

1. Contractor has created, acquired, or otherwise has rights in, and may, in connection with the performance of Services for the Authority, employ, provide, create, acquire, or otherwise obtain rights in various concepts, ideas, methods, methodologies, procedures, processes, know-how, techniques, models, templates and general-purpose consulting and Software tools, utilities and routines (collectively, the "Contractor Technology"). To the extent that any Contractor Technology is contained in any of the Deliverables including any derivative Works, the Contractor hereby grants the Authority (including without limitation its officers, directors, employees, contractors, and agents) a royalty-free, fully paid, worldwide, perpetual, non-exclusive, non-assignable, non-sublicensable, and irrevocable license to use such Contractor technology in connection with the Deliverables for the Authority's purposes.
2. Contractor shall not acquire any right, title, and interest in and to the copyrights for goods, any and all Software, technical information, specifications, drawings, records, Documentation, data or derivative Works thereof, or other Work Products provided by the Authority to Contractor. The Authority hereby grants the Contractor a royalty-free, fully paid, worldwide, perpetual, non-exclusive license for the Contractor's internal use to non-

confidential Deliverables originated and prepared by the Contractor for delivery to the Authority.

3. The Contractor, at its own expense, shall indemnify, hold harmless and defend the Authority's Board of Directors, the Authority and its officers, employees and anyone directly or indirectly employed by either of them from and against any action, suit, proceeding, claim, demand, loss or liability of any kind (an "Action") brought against the Authority, including, but not limited to, all litigation costs and expenses, attorney's fees, settlement payments and damages, to the extent that such Action is based upon a claim that the Services or Deliverables supplied by the Contractor, or the operation of such Deliverables pursuant to a current version of Contractor-supplied Software, infringes a patent, copyright, trademark, or other intellectual property right or violates a trade secret in the United States. The Contractor shall pay those costs and damages finally awarded against the Authority in any such action. Such defense and payment shall be conditioned on the following:
  - a. That the Contractor shall be notified within a reasonable time in writing by the Authority of any such claim; and,
  - b. That the Contractor shall have the sole control of the defense of any action on such claim however, the Contractor may not settle any Action without the prior written consent of the Authority unless such settlement relieves the Authority of any and all liability and obligation and such settlement does not limit, unduly interfere, or otherwise adversely affect the rights granted herein or the Authority's obligations under this Contract The Authority shall have the option to participate in such action at its own expense.

These obligations shall survive termination of the Contract and survive acceptance of any goods, Services, and/or performance and payment therefore by the Authority.

4. Should any Services or Software supplied by Contractor, or the operation thereof become, or in the Contractor's opinion are likely to become, the subject of a claim of infringement of a patent, copyright, trademark, or a trade secret in the United States, the Authority shall permit the Contractor, at its option and expense, either to procure for the Authority the right to continue using the goods/Hardware or Software, or to replace or modify the same to become non-infringing and continue to meet procurement specifications in all material respects. If neither of these options can reasonably be taken, or if the use of such goods/Hardware or Software by the Authority shall be prevented by injunction, the Contractor agrees to take back such goods/Hardware or Software and refund any sums the Authority has paid Contractor less any reasonable amount for use or damage and make every reasonable effort to assist the Authority in procuring substitute Deliverables. If, in the sole opinion of the Authority, the return of such infringing Deliverables makes the retention of other items of Deliverables acquired from the Contractor under this Contract impractical, the Authority shall then have the option of terminating the Contract, or applicable portions thereof, without penalty or termination charge. The Contractor agrees to take back such Deliverables and refund any sums the Authority has paid the Contractor less any reasonable amount for use or damage.

5. Nothing stated herein, however, shall affect the Contractor's ownership in, or rights to, the Contractor Property, including its pre-existing Software intellectual property and proprietary rights.

### ***3.1.6.6 TOLLS DATA OWNERSHIP AND SECURITY***

1. All Project materials, Designs, programs, enhancements, goods, technical information, specifications, drawings, records, Documentation, data, reports, and operations history information shall remain property of the Authority at all times during the life of the Contract and after Contract termination.
2. The Contractor(s) shall ensure that no unauthorized personnel will have access to individual facilities, cabinets, data and records, payment histories, or any personal information of existing or potential Authority toll customers. Paper records shall be locked when not in use; Systems shall have secure password and ID controls for any data access.
3. Personally Identifiable Information (PII) of existing or potential Authority toll customers shall not be accessible to persons outside of the United States. Such data includes unmasked detailed Transaction data, Transponder and license plate data, and demographic information. Data used in test systems that is derived from production data that is accessible to persons outside of the United States shall be masked or otherwise anonymized. Persons outside of the United States accessing the production system for Maintenance or monitoring shall not be able to view or download unmasked PII.

### ***3.1.6.7 SOFTWARE MAINTENANCE/SUPPORT SERVICES***

1. This general requirement applies unless otherwise provided in the Authority's Solicitation document or in an attachment hereto.
2. For the first year and all subsequent Contract years, the Contractor agrees to provide the following Services for the current version and one previous version of any Software provided with the Deliverables, commencing upon Go-Live:
  - a. **Error Correction.** The Contractor shall use reasonable efforts to respond, resolve or provide a working solution for the error or defect at the Contractor's expense according to the Key Performance Indicators in the Scope of Work and Requirements. The Authority shall comply with all reasonable instructions or requests of the Contractor in attempts to correct an error or defect in the Program. The Contractor shall act promptly and in a reasonably timely manner in communicating error or defect logs, other related information, proposed solutions or workarounds, and any action as may be necessary or proper to obtain or effect Operation and Maintenance Services under this paragraph.
  - b. The Contractor shall immediately notify the Authority of any material errors or defects in the Deliverables known or made known to the Contractor from any source during the Contract Term that could cause the production of inaccurate or otherwise materially incorrect, results. The Contractor shall initiate actions as may be commercially necessary or proper to effect corrections of any such errors or defects.
  - c. **Updates.** The Contractor shall provide to the Authority, at no additional charge, all new releases and bug fixes (collectively referred to as "Changes") for any Software

Deliverable developed or published by the Contractor and made generally available to its other customers at no additional charge. All such Updates shall be a part of the Program and Documentation and, as such, shall be governed by the provisions of this Contract.

- d. **Telephone Assistance.** The Contractor shall provide the Authority with telephone access to technical support engineers for assistance in the proper installation and use of the Software, and to report and resolve Software errors and defects.

### 3.1.7 ESCROW

#### 1. Establishing the Escrow Agreement

Prior to Go-live, the parties shall enter into a Software Escrow Agreement (“Escrow Agreement”). Prior to finalizing the Escrow Agreement and prior to depositing the Software and related Documentation into escrow, the Contractor shall submit the name of the escrow Agent, the Escrow Agreement, any associated costs born by the Contractor, including any optional costs, to the Authority for its review and Approval. The form of Escrow Agreement used by the escrow Agent shall be subject to the Authority’s review and potential revision prior to the Authority providing written Approval of the Escrow Agreement. If Escrow Agreement used by the escrow Agent is not Approved by the Authority or if mutual agreement on revisions to the Escrow Agreement cannot be reached, then the Contractor shall select another escrow Agent. If the escrow Agent’s form of Escrow Agreement is Approved by the Authority, said Escrow Agreement shall be used.

#### 2. Deposits

Pursuant to the terms of the Escrow Agreement, the Contractor shall deposit with the escrow Agent, without charge to the Authority, all Deposit Materials (as hereinafter defined) necessary or useful to: (i) use, reproduce, modify, repair and maintain the Software; (ii) operate, modify, repair and maintain the Equipment, and (iii) operate, use, modify, repair and maintain the System in accordance with the Contract. Access to and rights in the materials in the escrow shall be governed by the terms and conditions hereof and as further defined in the Escrow Agreement.

Materials so deposited (“Deposit Materials”) shall include but not be limited to: all Software programs (including all source and object code with respect thereto); configuration files; ICDs; operator’s and User’s manuals, and other associated Documentation; reports; control files, utilities, and packages; operating Systems; data base Systems; network packages; Maintenance items (including test programs and program specifications); functional Documentation, compilers, instructions for generating the Software, and any proprietary Software tools that are necessary in order to maintain the Software and other Equipment. A list of all Deposit Materials shall accompany the Deposit Materials.

The Contractor shall deposit a complete set of Deposit Materials at Go-Live and shall make deposit updates no less frequently than quarterly and when major Updates are made to Software.

In the event the Contractor revises or supplements any of the Deposit Materials or creates



additional materials related to the System, the Contractor shall deposit a complete set of such revised, supplemented, or additional Deposit Materials with the above-named escrow Agent within thirty (30) Calendar Days of such revision, supplement or addition and shall indicate with each deposit which documents and which pages have been revised, supplemented or added since the last deposit. Any deposits made pursuant to the two preceding sentences shall become part of the Deposit Materials.

The Contractor shall provide Notice to the Authority confirming and describing the content of any deposits made within thirty (30) Calendar Days of such deposits, certifying that all such deposits are complete and include accurate copies of the required materials.

To the extent the Software includes components developed by third-parties, the Contractor shall ensure that the Deposit Materials include copies of license agreements, computer programs, disks and Documentation for all Software obtained by the Contractor from third-parties. At the Contractor's expense, the Contractor shall ensure that all third-party licenses are transferable to the Authority at the time of any release of the escrow provided for hereunder.

3. Payment for Costs of Escrow

The Contractor shall be responsible for payment of all costs arising in connection with the establishment and maintenance of the escrow, referred to in this **Section 3.1.7, Escrow**, throughout the Contract Term, including any fees of the escrow Agent, and the Authority shall not be charged by the Contractor for its time in compiling and depositing Deposit Materials. The Contractor's obligation to maintain the escrow in place shall continue until the release of escrow deposit terms are met.

4. Verification of Escrow Deposits

The Contractor shall provide to the Authority, for each Escrow Deposit, a detailed summary of all Deposit Materials, both existing and newly deposited. From time to time while the escrow is in place, the Authority may, at its sole discretion, verify directly, using the escrow Agent, or hire a contractor qualified and mutually and reasonably acceptable to both parties, to provide verification of the applicable escrow deposits at the Authority's expense, and to prepare a report. The agreement between the Authority and such contractor will include non-disclosure provisions deemed appropriate by the Authority. Should any deficiencies or differences be noted between the System implemented under the Contract and the applicable deposits delivered to the escrow Agent, the Authority shall provide Notice to the Contractor and shall provide the Contractor with a copy of the audit report. Within thirty (30) Calendar Days after its receipt of such notification and accompanying audit report, the Contractor shall deliver to the escrow Agent for deposit the applicable Deposit Materials necessary to make the escrow deposits consistent with the System.

5. Release of Escrow Deposits

Except as may be otherwise provided in the Escrow Agreement, the Deposit Materials are to remain in escrow unless or until withdrawal of such Deposit Materials is permitted pursuant to this Contract, or upon end of the Contract, whether due to termination or expiration, at which time such Deposit Materials shall be provided to the Authority and shall be incorporated into the licenses granted to the Authority hereunder.

In addition, effective upon any release of the Deposit Materials to the Authority, the Contractor hereby grants to the Authority and its designees a perpetual, irrevocable, universal, non-exclusive, fully-paid-up, royalty-free license to use, reproduce, adapt, modify, enhance and reverse engineer the Non-custom and custom source code form of the Software and all Deposit Materials for the purpose of supporting and maintaining the System, and for using, making, and having made derivatives of the Software and Deposit Materials in connection therewith. The license granted hereunder shall cover the full definition of Software, including components directly owned, developed, or licensed by the Contractor, as well as components owned, developed or licensed by any Contractor affiliates, licensors, or Contractor parties, including third-party Software suppliers.

### **3.1.8 AUTHORITY OF PROJECT MANAGER**

The Authority's Project Manager shall determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, the Contract including, without limitation: questions as to the value and acceptability of the Services; questions as to either party's fulfillment of its obligations under the Contract; negligence, fraud or misrepresentation before or subsequent to the execution of the Contract; questions as to the interpretation of the Scope of Work and Requirements; and claims for damages, compensation and losses. The Authority's Project Manager is authorized to reject Work that does not conform to the Contract Documents. Whenever the Authority's Project Manager considers it necessary or advisable, the Authority's Project Manager is authorized to require additional inspection, examination, or testing of the Work regardless of the stage of completion or delivery of the Work.

### **3.1.9 KEY PERSONNEL**

The Contractor has designated an individual Project Principal, who is an officer authorized to sign the Contract, any Contract Amendments and to speak for and make commitments on behalf of the Contractor. The Contractor shall designate a Contractor Project Manager, identified in the Proposal, who shall act as the primary point of contact in all matters on behalf of the Contractor. The Contractor Project Manager shall assign other individuals as contacts with regard to specific functional areas of the Work, subject to the Approval of the Authority. The Authority shall have input into determining who shall be assigned as Contractor Project Manager and the Contractor may not change the Contractor Project Manager without consulting with the Authority and obtaining Approval from the Authority as set forth in the following paragraph.

The Contract identifies certain job categories as "Key Personnel" for the Contract. The Authority, in part, awarded the Contract based on the Authority's confidence and reliance on the expertise of the Contractor's Key Personnel. Key Personnel for this Project are identified in the Contractor's Proposal, in accordance with this RFP, and shall be required to work in the position and be committed to the Project, as indicated in the Contract. Other than in the case of an unexpected departure, the Contractor shall not substitute Key Personnel assigned to this Contract or make any significant reduction in the level of effort/commitment for such Key Personnel until and unless the Authority, in its sole discretion, Approves a replacement in writing. In the event of an unexpected departure of Key Personnel, the Contractor must: 1) inform the Authority of the departure with as much advance Notice as reasonably possible, and 2) provide a transition Plan including the Contractor's identification of the proposed resource for replacement of the key position, how the position will be handled until a permanent staff is assigned and the plan and schedule for the identification and presentation for Approval of the replacement. The transition Plan shall be provided for the Authority's review and Approval within ten (10) Business Days of the time the Contractor becomes aware of the unexpected departure.



The Authority reserves the right to direct the removal of any personnel when, in the Authority's opinion, the individual's performance is unsatisfactory. Replacement of personnel does not excuse the Contractor from compliance with all requirements of the Contract. If the Authority becomes dissatisfied with the performance of any person designated as Key Personnel performing under the Contract, the Authority shall notify the Contractor in writing. Within ten (10) Business Days of receipt of such Notice, the Contractor shall either propose a replacement person for evaluation and Approval by the Authority, or present to the Authority a Plan for correcting the incumbent's performance deficiencies within a period of thirty (30) Calendar Days thereafter. If either the Authority rejects the Plan presented by the Contractor or the incumbent's performance deficiencies are not corrected to the Authority's satisfaction within the thirty (30) Calendar Day Plan period, the Contractor shall, within ten (10) Business Days after rejection of the Plan or expiration of the thirty (30) Business Day Plan period, propose to the Authority a replacement person for evaluation and Approval by the Authority.

When making a request to replace Key Personnel, the Contractor shall provide a resume detailing the proposed personnel's work history for the Authority's review and Approval, as well as professional references, with contact information. Replacement Key Personnel being proposed must meet the minimum qualifications for the position. The Authority will Approve or disapprove the request in a timely manner.

Should the Authority determine during the term of the Contract, and if the list of Key Personnel does not include personnel essential to the successful performance of the Work, the Authority may require the Contractor to add any existing job category to such list.

The Contractor shall maintain detailed and up to date organizational charts, escalation charts, and related contact information, so the Authority may expeditiously escalate issues up the chain of command, if needed. Such information will be reviewed and updated regularly (and as needed) for accuracy and submitted to the Authority as modifications are made.

### **3.1.10 ACCEPTANCE FOR PROJECT PHASES**

Refer to the section below regarding conditions the Contractor must achieve to be granted acceptance for the Design and Implementation Phase.

#### ***3.1.10.1 SYSTEM ACCEPTANCE OF THE DESIGN AND IMPLEMENTATION PHASE***

System Acceptance of the Design and Implementation Phase shall be deemed to have occurred when the following conditions have been met:

1. The Contractor shall provide a System Acceptance letter Certification to close out the Design and Implementation Phase of the Project. The Certification shall include but not be limited to: total amounts associated with the Phase, date of Work completion and any additional required information contained in items 2 through 10 below, if applicable;
2. Successful completion and the Authority's Approval of all Formal Tests defined in the Scope of Work and Requirements, up to and including the System Acceptance Test;
3. The Contractor has provided the Authority with all required materials, Equipment and Software, Documentation and manuals (including As-built Documentation). All such materials have been verified by the Authority to be in good, working order;
4. The Contractor has provided all required training;

5. Any and all punch list items have been satisfactorily completed and Approved by the Authority;
6. The Contractor has deposited all current escrow materials required under the Contract, including all necessary Documentation and support materials;
7. An Affidavit has been delivered to the Authority signed by the Contractor, stating all debts and claims of suppliers and Subcontractors have been paid and/or settled;
8. All Contractor claims for the Design and Implementation Phase are deemed to be resolved by the Authority, and the Contractor has submitted a statement that no such requests or protests will be applied for; any and all claims under the Contract are resolved, and that no such claims will be made;
9. All Requirements for the Design and Implementation Phase shall be verified and Certified by the Contractor to be successfully delivered, and shall be Approved by the Authority; and
10. The Authority shall have delivered to the Contractor a Notice of System Acceptance for the Phase.

### **3.1.11 CONTRACT DOCUMENTS AND ORDER OF PRECEDENCE**

The Contract is subject to the terms and conditions of this Solicitation, which, in case of conflict, shall have the following order of precedence:

1. Executed Contract Amendments, including all exhibits and attachments RFP **Section 3, Terms and Conditions**, including Addenda
2. RFP **Section 1, Administrative**
3. RFP **Section 4, Conformed Scope of Work and Requirements**, including Attachments and Addenda
4. Contractor's Price Proposal
5. Contractor's Technical Proposal, including Exhibits and Appendices other than Price Proposal

The more stringent requirements shall apply in the event any conflicts cannot be resolved by applying the order of precedence. The Authority's standards, guidelines, specifications, quantity and quality requirements represent the minimum standards and may not be lessened by omission, modification or revision.

### **3.1.12 INSURANCE OBLIGATIONS**

The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the Contract.

Before commencing Work for the Authority and as a condition of payment, the Contractor shall purchase and maintain insurance that will protect it from claims arising out of its Work under the Contract, whether

the Work is performed by the Contractor, or any of its consultants or Subcontractors or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and, at a minimum, coverage and limits must meet the requirements as specified in **Exhibit D – Insurance Requirements, Coverages, and Limits**. The Contractor shall not allow any Subcontractor to commence Work on this Project until all insurance required of the Subcontractor has been obtained. Liability insurance coverage must be considered as primary and not as excess insurance to any coverage carried by the Authority and shall be non-contributory. The Contractor shall furnish a certificate evidencing such coverage, with the Authority named as an additional insured on a primary and non-contributory basis, except for professional liability, workers' compensation and employer's liability.

The Contractor shall submit the required Certificate(s) of Insurance to the Authority's Procurement Office in accordance with **Section 1.22.4, Execution of the Contract**. Certificate(s) shall remain in force during the duration of the Project/Services and will not be canceled or non-renewed until thirty (30) Calendar Days after the Authority receives written Notice of such change. All insurance must be with an insurance company with a minimum BEST rating of A-VII and licensed to do business in the State of Florida (must be acknowledged on the Proposal response form).

The Contractor shall assume all responsibility for risks or casualties of every description, for any and all damage, loss or injury, to persons or property arising out of the nature of the Work, including but not limited to the negligence or failure of its Subcontractors (as well as Contractor's employees) to comply with Contract Documents.

## 3.2 CONTRACT CHANGES AND TERMINATION

### 3.2.1 GENERAL

The Authority may, at any time, by written Amendment, make changes within the SOW and Services described in the Contract. If such changes cause an increase or decrease in the budgeted cost of or the time required for the performance of the agreed upon Work, an equitable adjustment as mutually agreed will be made in the limit on compensation as set forth in **Section 3.1.1, Payment Terms and Conditions**, or in the time of required performance as set forth in **Section 1.1.3, Time for Completion**, or both.

### 3.2.2 PURCHASE ORDERS

The Authority may request the Contractor to modify or enhance the System during the term of the Contract. Upon the Authority's request, the Contractor shall be responsible for coordinating with the Authority to fully document and submit a Purchase Order for the Authority's review and Approval. Purchase Orders shall contain, but not be limited to, the following information as directed by the Authority:

- Detailed scope of work describing the desired modification and/or enhancement
- Impacts of the change on the system, including system function, Maintenance and operation
- Level of effort to make the change (e.g. detailed hourly breakdown by Contractor staff)
- Testing needs and impacts
- Proposed, detailed implementation schedule and timeline
- Proposed price for the Design, development, testing and implementation of the modification and/or enhancement

Purchase Orders shall be negotiated between the Authority and the Contractor prior to the Contractor performing any work to Design, develop, test or implement the modification and/or enhancement.

Any proposed, pricing for Purchase Orders shall be developed using the Contractor's labor rates identified on the labor rate card in the Contractor's Price Proposal. While Purchase Orders may be negotiated as a fixed cost (e.g. lump sum) or as time and materials (T&M), the Contractor shall be required to provide a thorough breakdown of labor costs by staff positions and hours with associated costs being based on the labor rates provided in the Contractor's Price Proposal. Any labor rates not included in the Contractor's Price Proposal shall be negotiated between the Authority and the Contractor.

Purchase Orders shall be payable based on the terms of the Purchase Order Approved by the Authority. Approved revisions to any Requirement must be tracked in the Requirements Traceability Matrix (RTM) to be incorporated into the System Design and tests and/or as-built Documentation.

### **3.2.2.1 DISPUTED PURCHASE ORDER**

In the event the Contractor and the Authority are unable to agree on the terms of a Purchase Order, the Contractor shall perform the scope of work as outlined in the Purchase Order as directed by the Authority, and in such cases, the cost for the work shall be based on the Contractor's actual cost, based on the labor rates provided in the Contractor's Price Proposal, plus a reasonable profit margin, as defined in this Contract or, if undefined, at an industry-standard rate. The Contractor shall provide detailed Documentation supporting their costs (e.g. Contractor staff utilized and associated hours, meetings attended, work produced, etc.), and the reasonable profit margin shall be agreed upon by both parties, or determined by an independent third-party if necessary. The Contractor shall furnish weekly status reports regarding such Work, including such Documentation as the Authority may require in order to support all costs.

### **3.2.3 TIME EXTENSIONS AND SCHEDULE CHANGES**

In the event that Contractor believes it will be unable to meet the date within the Approved, Baseline Project Schedule for Go-Live, the Contractor must notify Authority of the delay in writing. Such notification must set forth the cause(s) of the delay and measures and actions the Contractor is taking to remedy or minimize the delay. The Authority may require that the Contractor propose a schedule recovery Plan to the Authority for Approval. The following provisions shall apply to time extensions and schedule changes:

1. Submission of a schedule recovery Plan made against the Approved, Baseline Project Schedule (in the form of a proposed, Updated Project Schedule) shall not release or relieve the Contractor from full responsibility for completing the Work within the time set forth in the Approved, Baseline Project Schedule.
2. Any changes to the Approved, Baseline Project Schedule, as proposed in an Updated Project Schedule, requires the Authority's written Approval.
3. Daily reports, applications for payments, requests for information and other administrative documents required by the Contract do not constitute written Notice of a claim for additional time or compensation.
4. Unless otherwise expressly agreed to by the Authority, the Contractor shall not receive extra compensation or damages for any time extension Approved by the Authority for completion of additional and/or altered Work, with the exception of executed Purchase Orders for which compensation for the work shall be documented in the Purchase Order.

### 3.2.4 SUSPENSION OF WORK

1. The Authority may in its sole discretion suspend any or all activities under the Contract or Purchase Order, at any time, when in the best interests of the Authority to do so. The Authority shall provide the Contractor with a written Notice outlining the particulars of suspension. Examples of the reason for suspension include but are not limited to, budgetary constraints, declaration of emergency, or other such circumstances. After receiving a suspension Notice, the Contractor shall comply with the Notice. Within ninety (90) Calendar Days, or any longer period agreed to by the Contractor, the Authority shall either (1) issue a Notice authorizing the resumption of Work, at which time activity shall resume, or (2) terminate the Contract or Purchase Order. Suspension of Work shall not entitle the Contractor to any additional compensation. The Contractor shall be granted an appropriate extension of time, which shall not exceed the day-for-day period of suspension and shall be granted an equitable adjustment to the Contractor's compensation for the increased direct costs of maintaining and securing the Project during the suspension period.

### 3.2.5 CONTRACT TERMINATION

#### 3.2.5.1 *TERMINATION GENERAL REQUIREMENTS*

1. The Contract issued for OBOS Services will terminate at the end of the Contract Term(s) set forth above, inclusive of any operations and Maintenance and/or extension periods as noted in **Section 3.1.2, Contract Term**, unless otherwise terminated earlier as set forth below.
2. The Authority may terminate the Contract, in whole or in part, for cause or convenience subject to the default provisions set forth below.
3. Any required Notices of termination made under this Contract shall be transmitted via U.S. Mail, Certified Return Receipt Requested, via email from the Authority's General Counsel or personal delivery to the Contractor's contract administrator. The period of Notice for termination shall begin on the day the return receipt is signed and dated or upon personal delivery to the Contractor(s) contract administrator.
4. The Authority may terminate this Contract, in whole or in part, pursuant to the Terms and Conditions in the Contract.
5. The Authority will notify the Contractor at least ninety (90) Calendar Days prior to the termination of the Contract in the absence of termination for cause. This notification will require the Contractor to initiate succession responsibilities and hand off operations and Maintenance activities to replacement entities. These actions shall include:
  - a. Acknowledgment of receipt of end of Contract notification, and
  - b. Act in accordance with **Section 3.2.5, Contract Termination** and **Section 3.2.6, End of Contract and Succession**.

**3.2.5.2 TERMINATION FOR CAUSE**

1. In the event, any Equipment, Hardware Software, or Services furnished by the Contractor during the performance of any Contract Term fails to conform to any material requirement of the Contract, and the failure is not cured within the specified time after providing written Notice thereof to Contractor, the Authority may terminate the Contract and procure the Work or Services from other sources; holding Contractor liable for any excess costs occasioned thereby. The rights and remedies of the Authority provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. The Contractor shall not be relieved of liability to the Authority for damages sustained by the Authority arising from the Contractor's breach of this Contract; and the Authority may, in its discretion, withhold any payment due as a setoff until such time as the damages are finally determined or as agreed by the parties..
2. Cause shall mean a material breach of the Contract by the Contractor. Without limiting the generality of the foregoing and in addition to those instances referred to elsewhere in the Contract as a breach, a material breach shall include the following:
  - a. the Contractor failed to receive, transmit and/or process Transactions and data in accordance with the Contract;
  - b. the Contractor materially inhibited the Authority's collection of toll revenue;
  - c. the Contractor has not submitted acceptable Deliverables to the Authority on a timely basis;
  - d. the Software/Equipment proves incapable of meeting the Requirements set forth in the Contract;
  - e. the Contractor exhibits a pattern of missing deadlines and/or milestone dates negatively impacting the Approved, Baseline Project Schedule or the schedule of other Project entities, like that of the RTCS.
  - f. the Contractor refused or failed, to supply enough properly skilled workers or proper materials to properly perform the Services required under the Contract;
  - g. the Contractor failed to make prompt payment to Subcontractors or suppliers for materials or labor;
  - h. the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received from the Contract for the benefit of its creditors, or it has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's property or affairs have been put in the hands of a receiver;
  - i. any case, proceeding or other action against the Contractor is commenced in bankruptcy, or seeking reorganization, liquidation or any relief under any bankruptcy, insolvency, reorganization, liquidation, dissolution or other similar act or law of any jurisdiction, which case, proceeding or other action remains undismissed, undischarged or unbonded for a period of thirty (30) Calendar Days;



- j. the Contractor fails to maintain insurance policies and coverages or fails to provide proof of insurance or copies of insurance policies as required by the Contract;
  - k. any Warranty, representation, certification, financial statement or other information made or furnished to induce the Authority to enter into the Contract, or made or furnished, at any time, in or pursuant to the terms of the Contract or otherwise by the Contractor, or by any person who guarantees or who is liable for any obligation of the Contractor under the Contract, shall prove to have been false or misleading in any material respect when made;
  - l. any intentional violation by the Contractor of the ethics provisions, or applicable laws, rules or regulations;
  - m. the Contractor has failed to obtain the Approval of the Authority where required by the Contract;
  - n. the Contractor's Audited Financial Statements or those of its parent company submitted to the Authority do not fairly represent the Contractor or its parent's true financial position;
  - o. the Contractor has failed in the representation of any warranties stated herein;
  - p. the Contractor makes a statement to any representative of the Authority indicating that the Contractor cannot or will not perform any one or more of its obligations under the Contract;
  - q. the Contractor fails to remedy Pervasive Defects;
  - r. any act or omission of the Contractor or any other occurrence which makes it improbable at the time that the Contractor will be able to perform any one or more of its obligations under the Contract;
  - s. any suspension of or failure to proceed with any part of the Services by the Contractor which makes it improbable that the Contractor will be able to perform any one or more of its obligations under the Contract;
  - t. a pattern of repeated failures to meet the Key Performance Indicators of the Contract;
  - u. the suspension or revocation of any license, permit, or registration necessary for the performance of the Contractor's obligations under the Contract;
  - v. the Contractor's appearance on any applicable debarment list; or
  - w. the default in the performance or observance of any of the Contractor's other obligations under the Contract and the continuance thereof for a period of thirty (30) Calendar Days after the Notice given to the Contractor by the Authority.
3. Cure/Warning Period. Prior to terminating the Contract for cause, the Authority may issue a Notice of cure/warning to the Contractor(s) thirty (30) Calendar Days prior to the termination date if the Authority determines such breach can be curable. The Notice will

be transmitted via U.S. Mail Certified Return Receipt Requested, commercial overnight carrier, or personal delivery to the Contractor(s) contract administrator, and may send a copy of such Notice via email (read receipt requested) to the Contractor contract administrator. The period of Notice for termination shall begin on the date the Return Receipt is signed and dated, upon delivery to the Contractor contract administrator, or upon delivery of such Notice via email, whichever occurs first. The Notice will specify the corrective actions/Work required to be taken by the Contractor to come into compliance with the terms and conditions of the Contract. If the corrective actions/Work is performed within the cure/warning period, in a manner acceptable to the Authority, the Contract will remain in effect in accordance with the terms and conditions thereof.

4. Termination Without Notice of Cure/Warning. If (1) the Authority determines that the breach is not curable; or (2) the Authority has issued two (2) Notices of cure/warning to the Contractor, upon the issuance of the third or subsequent Notice, the Authority reserves the right to terminate the Contract without further Notice. The failure of the Authority to exercise this right on any occasion shall not be deemed a waiver of any future right.

### **3.2.5.3** *TERMINATION FOR CONVENIENCE WITHOUT CAUSE*

1. The Authority may terminate the Contract without cause, in whole or in part by giving ninety (90) Calendar Days prior Notice in writing to the Contractor. The Contractor shall be entitled to sums due as compensation for Deliverables provided and Services performed in conformance with the Contract prior to termination. In the event the Contract is terminated for convenience, the Authority will pay for all Work performed and products delivered in conformance with the Contract up to the date of termination.

### **3.2.6** **END OF CONTRACT AND SUCCESSION**

If the Contract is not renewed at the end of the base term or the Contract, or has completed the Contract Term extensions, or is canceled prior to its expiration, for any reason, the Contractor shall cooperate with the Authority to facilitate a smooth succession to the Authority's selected successor for the expired or canceled portion of the Services, whether the successor is the Authority or a third-party, to enable the Authority's System and operations to continue without interruption or adverse effect. Succession Services provided prior to the end of the Contract shall be provided as set forth in the requirements of the Contract.

Prior to beginning succession Services for the Authority, the Contractor and the Authority shall meet to discuss succession needs, and expectations, as well as payment terms. For example, the Authority may pay the Contractor, based on a time and materials basis, for any resources utilized in performing such transition assistance at the most current rates provided by the Contract for Contract performance.

Upon completion or termination of the Contract and as outlined within the SOW and Requirements, the Contractor shall provide the Authority with copies of all data, owned by the Authority, and all documents, in-progress or completed created for this Project, and provide reasonable assistance with ensuring that such data is accessible, readable and usable by the Authority.

While providing succession Services to the Authority, the Contractor shall be required to submit a Succession Status Report weekly to the Authority to track activities the Contractor performed in support of succession activities and related expenses. The content of the status report shall include, at a minimum: a list of all activities the Contractor performed for the week, broken down by staff and/or position and associated labor rate, activities performed and/or meetings attended and hours spent by staff members on



each activity. The Succession Status Report shall be the total cost to be invoiced to the Authority for the week's Work. The Contractor shall invoice the Authority monthly for succession support.

If the Authority cancels the Contract for cause, then the Authority shall be entitled to offset the cost of paying the Contractor for the additional resources the Contractor utilized in providing succession assistance with any damages the Authority may have otherwise accrued as a result of said cancellation.

Upon termination or expiration of this Contract, Contractor shall promptly and at its sole cost, where permitted under the terms of the applicable agreements, take all steps and undertake all measures necessary, including the execution of documents, to assign to the Authority all rights, title, and interest in and to any contracts or agreements with Cloud service providers related to Cloud-based Services utilized under or in relation to the Contract.

### **3.3 GENERAL TERMS AND CONDITIONS**

#### **3.3.1 CONTRACTOR RESPONSIBILITY**

The Contractor shall be responsible for the proper execution of all Work, including but not limited to, all required and necessary internal and external agency coordination; schedule development and management, updates and execution; workshop facilitation to refine all Business Rules and Work Requirements; meeting facilitation to update the Authority on Project status; preparation of all Documentation related to the Work for Authority's Approval; and completion of System Design, development, data migration, testing, implementation, monitoring, operation and Maintenance; and ensuring the System meets all Requirements set forth in the Contract.

The Contractor shall be responsible for compliance with the Requirements set forth in the Contract Documents.

The Contractor shall be responsible for coordinating with the Authority regarding Business Rules and/or SOW Requirements conformance and/or any information related to legacy TOBS, System interfaces, or other information necessary for the Contractor to complete the Work. The Contractor will not be compensated for any additional costs or time associated with Re-evaluation(s) or re-work resulting from proposed Design changes due to Contractor assumptions or poor coordination or resulting from proposed changes that are not coordinated through or Approved by the Authority in advance of the change being made.

The Contractor shall be required to provide complete transparency to the Authority during all phases of the Project. For example, during the Design and Implementation Phase of the Project, the Contractor shall provide full transparency to the Authority regarding Project progress, schedule updates (via Updated Project Schedules) and impacts related to changes and delays, OBOS Design, development progress, internal testing results (providing insight into the number and severity of bugs/issues, especially ahead of all Formal Tests), data migration progress, and Go-Live planning. During the Operations and Maintenance Phase of the Project, the Contractor shall provide the Authority with transparency into System issues, test results, and the implementation of any System update/patch/modification.

The Contractor shall demonstrate good project management practices while working on this Project. These include communication with the Authority and others as necessary and as directed by the Authority, management of time and resources, and Documentation.

### 3.3.2 SUBCONTRACTING

1. The Contractor may subcontract the performance of required Services with other contractors or third-parties, or change Subcontractors, only with the prior written consent of the Authority. The Contractor shall provide the Authority with complete copies of any agreements made by and between the Contractor and all Subcontractors. The Contractor remains solely responsible for the performance of its Subcontractors. Subcontractors, if any, shall adhere to the same standards required of the Contractor. Any contracts made by the Contractor with a Subcontractor shall include an affirmative statement that the Authority is an intended third-party beneficiary of the Contract; that the Subcontractor has no agreement with the Authority; and that the Authority shall be indemnified by the Contractor for any claim presented by the Subcontractor. Notwithstanding any other term herein, The Contractor shall timely exercise its contractual remedies against any non-performing Subcontractor and, when appropriate, substitute another Subcontractor.

### 3.3.3 CONTRACTOR'S REPRESENTATION

1. The Contractor warrants that qualified personnel shall provide Services in a professional manner. "Professional manner" means that the personnel performing the Services will possess the skill and competence consistent with the prevailing business standards in the information technology industry. The Contractor agrees that it will not enter into any agreement with a third-party that might abridge any rights of the Authority under this Contract. The Contractor will serve as the prime Contractor under this Contract. Should Subcontractors be contracted by the Contractor, the Contractor shall be legally responsible for the performance and payment of the Subcontractor(s). Names of any third-party contractors or Subcontractors of Contractor may appear for purposes of convenience in Contract Documents; and shall not limit Contractor's obligations hereunder.
2. Intellectual Property. The Contractor represents that it has the right to provide the Services and other Deliverables without violating or infringing any law, rule, regulation, copyright, patent, trade secret or other proprietary right of any third-party. Contractor also represents that its Services and other Deliverables are not the subject of any actual or threatened actions arising from, or alleged under, any intellectual property rights of any third-party.
3. Inherent Services. If any Services or other Deliverables, functions, or responsibilities not specifically described in this Contract are required for Contractor's proper performance, provision and delivery of the Services and other Deliverables pursuant to this Contract, or are an inherent part of or necessary sub-task included within the Services, they will be deemed to be implied by and included within the scope of the Contract to the same extent and in the same manner as if specifically described in the Contract.
4. The Contractor warrants that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that the Contractor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against the Contractor that could materially adversely affect the performance of this Contract; and that entering into this Contract is not prohibited by any contract, or order by any court of competent jurisdiction.

### 3.3.4 OTHER GENERAL PROVISIONS

#### 3.3.4.1 *GOVERNMENTAL RESTRICTIONS*

1. In the event any restrictions are imposed by governmental requirements after execution of the Contract that necessitates alteration of the material, quality, workmanship, or performance of the Deliverables offered prior to delivery thereof, the Contractor shall provide written notification of the necessary alteration(s) to the Authority. The Authority reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract. The Authority may advise the Contractor of any restrictions or changes in specifications required by Federal or Florida legislation, rule or regulatory authority that require compliance by the Authority. In such event, the Contractor shall use its best efforts to comply with the required restrictions or changes. If compliance cannot be achieved by the date specified in the Contract, the Authority may terminate this Contract in accordance with **Section 3.2.5, Contract Termination**, or elect to enter into a Purchase Order to effectuate such compliance.

#### 3.3.4.2 *ADVERTISING / PRESS RELEASE / PUBLICITY*

1. The Contractor, its employees, Subcontractors, and/or Agents will not publicly disseminate any information concerning the Contract or this Project, or refer to the Authority for use any logos, Images, or photographs of the Authority for any commercial purpose, including, but not limited to, advertising, promotion, or public relations, without the Authority's prior written consent. Such written consent will not be required for the inclusion of the Authority's name on a customer list.

#### 3.3.4.3 *PUBLIC RECORDS, CONFIDENTIAL MATTERS AND DATA OWNERSHIP*

1. The Contractor agrees all data, Documentation, records and information that are property of or licensed to the Authority, are the subject of this Contract, and which the Contractor, its Agents and employees, obtain access, remains at all times exclusively the property of the Authority or its licensors (other than Contractor). The Contractor agrees all such data, Documentation, records, Plans and information constitutes and shall be treated at all times by the Contractor as proprietary information of the Authority. The Contractor agrees that it will not disclose, provide, or make available any of such Authority data, Documentation, records or information in any form to any person or entity, except as authorized by the Authority. In addition, the Contractor agrees it will not use any names or addresses contained in such data, records, Documentation, Plans and information for the purpose of selling or offering for sale any property or Service to any person or entity who resides at any address in such data. In addition, the Contractor agrees it will not sell, give or otherwise make available to any person or entity any names or addresses contained in or derived from such data, Documentation, records and information for the purpose of allowing such person to sell or offer for sale any property or Service to any person or entity named in such data. The Contractor agrees it will take all reasonable steps and the same protective precautions to protect the Authority's proprietary information from disclosure to third-parties as with the Contractor's own proprietary and confidential information. The Contractor agrees that all data, regardless of form that is generated as a result of this Contract is the property of the Authority.

- a. Care of Information: Contractor agrees to use commercial best efforts to safeguard and protect any data, documents, files, and other materials received from the Authority during the performance of any contractual obligation from loss, destruction or erasure.
- b. The Contractor warrants that all its employees and any approved third-party contractors or Subcontractors are subject to a non-disclosure and confidentiality agreement enforceable in Florida. The Contractor will, upon request of the Authority, verify and produce true copies of any such agreements. Production of such agreements by the Contractor may be made subject to applicable confidentiality, non-disclosure or privacy laws; provided that the Contractor produces satisfactory evidence supporting exclusion of such agreements from disclosure under the Florida Public Records Law in Chapter 119. The Authority may, in its sole discretion, provide a non-disclosure and confidentiality agreement satisfactory to the Authority for the Contractor's execution. The Authority may exercise its rights under this subparagraph as necessary or proper, in its discretion, to comply with applicable security regulations or statutes including, but not limited to 26 USC 6103 and IRS Publication 1075, (Tax Information Security Guidelines for Federal, State, and Local Agencies), HIPAA, 42 USC 1320(d) (Health Insurance Portability and Accountability Act), any implementing regulations in the Code of Federal Regulations, and any future regulations imposed upon the Office of Information Technology Services or the Florida Department of Revenue pursuant to future statutory or regulatory requirements.
- c. Nondisclosure: Contractor agrees and specifically warrants that it, its officers, directors, principals and employees, and any Subcontractors, shall hold all information received during the performance of this Contract in the strictest confidence and shall not disclose the same to any third-party without the express written Approval of the Authority.
- d. The Contractor shall protect the confidentiality of all information, data, instruments, studies, reports, records, and other materials provided to it by the Authority or maintained or created in accordance with this Contract. No such information, data, instruments, studies, reports, records, and other materials in the possession of the Contractor shall be disclosed in any form without the prior written consent of the Authority. The Contractor will have written policies governing access to and duplication and dissemination of all such information, data, instruments, studies, reports, records, and other materials.
- e. All Project materials, including Software, data, and Documentation created during the performance or provision of Services hereunder that are not licensed to the Authority or are not proprietary to the Contractor are the property of the Authority and must be kept confidential or returned to the Authority, or destroyed.
- f. Proprietary Contractor materials shall be identified to the Authority by Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Derivative Works of any Contractor proprietary materials prepared or created during the performance of provision of Services hereunder shall be subject to a perpetual, royalty free, nonexclusive license to the Authority.

- g. The Contractor shall mark all documents or Deliverables created during the performance or provision of Services hereunder as confidential and/or proprietary **only** if a document or Deliverable contains information that would result in harm to the Contractor if it's released, and **only** with the Approval of the Authority. The Contractor shall be judicious in marking documents and other Deliverables created for the Project as confidential and shall avoid over-utilization of confidential and/or proprietary markings on all Deliverables (e.g. meeting agendas, meeting notes, etc.). The Contractor acknowledges that the Authority is subject to Florida's public records laws and therefore cannot guarantee the confidentiality of any document provided by the Contractor to the Authority, regardless of its markings.
2. When the Contractor receives any request to inspect or copy any records that relate to the Contract, it shall promptly provide the Authority with a copy of the request. The Authority will respond to each such request on behalf of itself and the Contractor and the Contractor agrees to fully cooperate with the Authority with regard to all records requests and comply with all decisions made by the Authority regarding the production/disclosure. The Contractor shall:
    - a. Keep and maintain public records that ordinarily and necessarily would be required by the Authority in order to perform the Services being performed by the Contractor.
    - b. Upon request from the Authority's custodian of public records, provide the public with access to public records on the same terms and conditions that the Authority would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, as amended, or as otherwise provided by law.
    - c. Except as authorized by law, ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed for the duration of the Contract Term as well as following completion or termination of the Contract if the Contractor does not transfer the records to the Authority.
    - d. Upon completion or termination of the Contract, transfer, at no cost, to the Authority all public records in possession of the Contractor or keep and maintain the public records required by the Authority and the law to perform the Service. If the Contractor transfers all public records to the Authority upon completion or termination of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion or termination of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Authority in a format that is compatible with the information technology systems of the Authority.
    - e. Failure to grant such public access or otherwise comply with the Authority's request for records will be grounds for immediate termination of the Contract by the Authority. In the event of such failure, the Authority shall also enforce the Contract provisions in accordance with the Contract.

- f. Failure to provide the public records to the Authority within a reasonable time may also subject the Contractor to penalties under section 119.10, Florida Statutes.
- g. If a civil action is filed against the Contractor to compel the production of public records relating to the Contract, the Contractor will be solely responsible and liable for its attorney's fees and any resulting damages.

**IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT, THE CONTRACTOR MUST CONTACT THE AUTHORITY'S CUSTODIAN OF PUBLIC RECORDS, WHO CAN BE REACHED AT: (813-272-6740); AND 1104 E. Twiggs Street, Suite 300 Tampa, FL, 33602.**

#### **3.3.4.4 CLOUD PROVIDER AGREEMENTS**

1. In the event the solution proposed by the Contractor and accepted by the Authority has OBOS deployed within a Cloud-based environment/architecture and prior to deployment, the Contractor shall provide any agreements/contracts, language, associated costs, service level agreements (SLA), licensing, or other agreements between the Contractor and the Cloud service provider to the Authority for review and Approval.
2. The Contractor and/or Cloud provider shall not alter or change any agreements/contracts, language, associated costs, service level agreements (SLA), licensing, or other agreements between the Contractor and the Cloud service provider without the Authority's Approval.
3. The Contractor shall request and provide the results of the most recent information security audit report for the Cloud provider to the Authority for review and Approval prior to deploying the OBOS within a Cloud-based environment.

#### **3.3.4.5 LATE DELIVERY, BACK ORDER**

1. The Contractor shall advise the Authority immediately upon determining that any Deliverable will not, or may not, be delivered at the time (as specified in the Approved, Baseline Project Schedule or latest Updated Project Schedule) or place specified. Together with such Notice, the Contractor shall state the projected delivery time and date. In the event the delay projected by the Contractor is unsatisfactory, the Authority shall so advise the Contractor and may proceed to procure substitute Deliverables or Services.

#### **3.3.4.6 ASSIGNMENT**

1. The Contractor may not assign this Contract or its obligations hereunder except as permitted in this paragraph. The Contractor shall not sell, assign or transfer any of its rights, duties or obligations under the Contract, or under any Purchase Order issued pursuant to the Contract, without the prior written consent of the Authority. In the event of any assignment, the Contractor remains secondarily liable for performance of the Contract,



unless the Authority expressly waives such secondary liability. The Authority may assign the Contract with prior written Notice to the Contractor of its intent to do so.

The Contractor shall provide reasonable Notice of not less than thirty (30) Calendar Days prior to any consolidation, acquisition, or merger. Any assignee shall affirm this Contract atoning to the terms and conditions agreed, and the Contractor shall affirm that the assignee is fully capable of performing all obligations of the Contractor under this Contract.

An assignment may be made, if at all, in writing by the Contractor, Assignee and the Authority setting forth the foregoing obligation of the Contractor and Assignee.

### **3.3.4.7 CLAIMS**

1. Time limits and claim substantiation. All claims by the Contractor must be made within fourteen (14) Calendar Days after occurrence of the event giving rise to such claim or within fourteen (14) Calendar Days after the Contractor first recognizes the condition giving rise to the claim, whichever is later. Claims must be initiated by written Notice to the Authority and contain a thorough description of the basis of the claim, with copies served on the Authority and the Authority's Project Manager. Daily reports, applications for payments and other administrative documents required by the Contract do not constitute written Notice of a claim.
2. The responsibility to substantiate a claim shall rest with the party making the claim. All claims made by the Contractor shall be substantiated and quantified within thirty (30) Calendar Days of the written Notice by an itemized, detailed cost breakdown sufficient to analyze the value and impact of the claim, stating applicable cost and time. Failure to comply with the time requirements for providing written Notice and substantiation of claims shall result in a waiver of the applicable claim. Under no circumstances shall the Contractor be entitled to any indirect, incidental, special, or consequential damages in any proceeding arising out of or relating to the Contract or the breach thereof.
3. Continuing Contract Performance. Pending final resolution of a claim, including, but not limited to during the process set forth in **Section 3.3.4.8, Dispute Resolution**, the Contractor shall proceed diligently with the performance of the Work. Neither the Authority's payment on an application for payment pending final resolution of a claim nor the Authority's agreement to relief in connection with a claim, Purchase Order request, or otherwise shall be deemed to expressly, impliedly, by course of conduct or otherwise waive the requirement for Notice and substantiation of claims.
4. By making the final payment, the Authority does not waive any claim that arises from: (a) liens, claims, security interests, or encumbrances arising out of the Contract and unsettled at the time final payment is made; (b) latent defects; (c) failure of the Work to comply with the Contract Documents; (d) terms of special warranties required by the Contract Documents; or (e) any claim for overpayment, including, but not limited to, those resulting directly or indirectly from any erroneous measurement, estimate, or quantity.
5. Claims for Concealed, Unforeseen or Unknown Conditions. If conditions are encountered at the site that are (1) concealed physical conditions that differ materially from those indicated in the Contract or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent

in construction activities of the character provided for in the Contract, then the Contractor shall give written Notice to the Authority's Project Manager promptly before conditions are disturbed and in no event later than seven (7) Calendar Days after first observance of the conditions. This Notice shall include a written description of the concealed or unknown condition and the Contractor's proposed method to resolve the concealed or unknown condition. If the Authority's Project Manager determines that the conditions at the site are not materially different from those indicated in the Contract, and that no change in the terms of the Contract is justified, the Authority's Project Manager shall so notify the Contractor in writing. The Contractor shall notify the Authority's Project Manager of any opposition to the determination by the Authority's Project Manager within seven (7) Calendar Days after the Authority's Project Manager has given Notice of its determination. Substantiation and quantification of any claims related to concealed or unknown conditions must be provided within thirty (30) Calendar Days of the date that the Contractor's claim Notice is received by the Authority's Project Manager or thirty (30) Calendar Days from the date that the Authority's Project Manager has issued direction on how to resolve the concealed or unknown condition. If such concealed or unknown site conditions are encountered, and if the critical path is directly impacted as a result, the Contractor shall be entitled to an adjustment in the Contract time for performance for the delay caused by the correction of concealed or unknown conditions, subject to the requirements of **Section 3.2, Contract Changes and Termination**. If such concealed or unknown site conditions are encountered, requests for compensation for the reasonable direct costs that are caused solely by the delay are subject to the requirements of Section 3.2. If the concealed or unknown condition causes a decrease in the cost of performing the Work, the Authority shall be entitled to deduct the decreased cost from the Total Contract Amount.

6. Injury or Damage to Person or Property. If the Contractor suffers injury or damage to person or property because of an act or omission of the Authority, of the Authority's employees or Agents, or of others for whose acts the Authority is legally liable, written Notice of such injury or damage, whether or not insured, shall be given to the Authority, and no later than fourteen (14) Calendar Days after first observance. The Notice shall provide sufficient detail to enable the Authority to investigate the matter.
7. The Contractor shall, within fifteen (15) Business Days from delivery of Notice from the Authority or Authority's Project Manager, produce for examination by the Authority, Authority's Project Manager, or an authorized representative of either of them, all of the Contractor's records related to the Work or under the Contract, including, but not limited to, books of account, bills, invoices, payrolls, Subcontracts, Subcontractor payment requests, time sheets/cards, progress records, daily logs, daily reports, cost accounting records, correspondence, and any other document or record regarding all of the Contractor's acts and transactions in connection with or relating to or arising by reason of the Contract, and provide appropriate personnel familiar with such records to explain such records and answer questions regarding any claims made under the Contract. The Contractor's failure to furnish the requested information or appear for examination shall result in the Contractor's waiver and release of all claims arising out of, relating to, or by reason of the Contract, except for the sums certified by the Authority's Project Manager to be due under the provisions of the Contract. In addition to the foregoing, to the extent any claim by the Contractor includes any claims by Subcontractors or Subconsultants, arising under or by reason of the Contract, the Authority shall also have the right through its designees, upon written Notice, to require the Subcontractor to produce the above described records related to Work in connection with the Contract in the Subcontractor's



or Subconsultant's possession and to submit itself and persons in its employ to similarly explain its records and answer questions, within fifteen (15) Business Days from delivery of written Notice from the Authority to the Contractor requesting same. The Contractor shall ensure that the Subcontractor or Subconsultant timely complies with this provision.

### **3.3.4.8 DISPUTE RESOLUTION**

1. In the event of any dispute whatsoever arising out of or relating to the Contract Documents, the Work or the Project, the disputing party must furnish a written Notice to the other party, setting forth in detail the dispute. Such Notice must be addressed to the other party's Project Manager. Within five (5) Business Days after the receipt of the Notice by the receiving Project Manager, the two Project Managers shall meet in the Authority's offices to attempt to resolve the dispute. If the Project Managers cannot resolve the dispute then, within fourteen (14) Calendar Days after the date of written Notice by either Project Manager to the Executive Director of the Authority and the Project Principal, the Executive Director of the Authority and the Project Principal shall meet in the Authority's offices to attempt to resolve the dispute. If the Executive Director of the Authority and the Project Principal cannot resolve the dispute or otherwise agree to extend the time within which to attempt to resolve the dispute, then either Party may pursue those remedies as allowed under this Contract.
2. **MANDATORY PRE-SUIT MEDIATION.** All Claims, disputes, or other matters in question arising out of or relating to the Contract, shall be subject to mandatory pre-suit mediation under the auspices of a mediator to be selected by the parties. Mediation must occur before a lawsuit is filed. Discovery prior to the scheduled mediation shall be limited to one (1) request for production of documents and two (2) depositions per party not exceeding 8 hours total time per deposition. Each party shall equally bear the costs of mediation and shall be solely responsible for its own attorneys' fees and other legal costs prior to and during the mediation process. In the event the case does not settle at mediation, the parties may re-depose either or both witnesses on non-repetitive matters.
3. The parties agree that all legal proceedings that relate in any way to the Contract shall be brought only in the Circuit Court of the Thirteenth Judicial Circuit in and for Hillsborough County, Florida. It is further stipulated and agreed that no person or entity has power to waive any of the foregoing provisions of this section, and that in any action against the Authority to recover on any claim or any sum in excess of the sums certified by the Authority's Project Manager to be due under or by reason of the Contract, the Contractor must allege in its complaint, and prove at trial, compliance with the provisions of this section.
4. **CERTIFICATION OF SUBCONSULTANT OR SUBCONTRACTOR CLAIM.** For any Claim made by the Contractor against the Authority, the basis of which includes a Claim by a Subconsultant, Subcontractor, or any other person or entity under the Contractor's control, for acts or omissions allegedly attributable to the Authority, the Contractor must certify by affidavit that it has carefully examined each Subconsultant's or Subcontractor's Claim and has verified the truth and accuracy of each Claim. Such certification under oath must be made by the Contractor prior to the submission of any Subconsultant or Subcontractor Claim to the Authority and shall constitute an express condition precedent to the Contractor having a cause of action against the Authority that includes a Subconsultant's Claim or a Subcontractor's Claim. A copy of such certification shall be

provided to the Authority contemporaneously with the submission of any Subconsultant or Subcontractor Claim to the Authority. The Authority will not consider any Claim that has not been properly certified by the Contractor, nor is the Contractor entitled to relief by the Authority unless the certification contemplated by this section has been properly furnished to the Authority.

#### **3.3.4.9 DEFAULT**

1. In the event any Deliverable furnished or Work performed by the Contractor during performance of the Contract Term fails to conform to any requirement of the Contract, a Notice of cure/warning shall be issued to the Contractor by the Authority, and if the failure is not cured within thirty (30) Calendar Days, or the Contractor fails to meet the acceptance Requirements of the Contract, the Authority may cancel and procure the articles or Services from other sources; holding Contractor liable for any excess costs occasioned thereby, subject only to the limitations of liability and the obligation to informally resolve disputes as provided in these Terms and Conditions. Default may be cause for debarment. The Authority reserves the right to require performance guarantees from the Contractor without expense to the Authority. The rights and remedies of the Authority provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. The Authority allows for thirty (30) Calendar Days to cure a termination, pursuant to paragraph **3.2.5.2, Termination for Cause**.
2. If the Contractor fails to deliver Deliverables within the time required by this Contract, the Authority may provide written Notice of said failure to Contractor, and by such Notice require payment of liquidated damages.
3. The Contractor will use reasonable efforts to mitigate delays, costs or expenses arising from assumptions in the Contractor's bid documents that prove erroneous or are otherwise invalid.
4. The Contractor shall provide a plan to cure any default if requested by the Authority. The plan shall state the nature of the default, the time required for cure, any mitigating factors causing or tending to cause the default, the details regarding the plan to cure, and such other information as the Contractor may deem necessary or proper to provide.
5. This **Section 3.3.4.9, Default** shall survive termination, cancellation, or expiration of the Contract.

#### **3.3.4.10 WAIVER OF DEFAULT**

1. Waiver by the Authority of any default or breach by the Contractor shall not be deemed a waiver or any subsequent default or breach and shall not be construed to be a modification or novation of the terms of this Contract.

#### **3.3.4.11 CONTRACTOR'S LIABILITY FOR INJURY TO PERSONS OR DAMAGE TO PROPERTY**

1. The Contractor shall be liable for damages arising out of personal injuries and/or damage to real or tangible personal property of the Authority, employees of the Authority, persons designated by the Authority for training, or person(s) other than Agents or employees of the Contractor, designated by the Authority for any purpose, prior to, during, or subsequent

to delivery, installation, acceptance, and use of the Deliverables either at the Contractor's site or at the Authority's place of business, provided that the injury or damage was caused by the fault or negligence of the Contractor.

2. The Contractor agrees to indemnify, defend and hold the Authority and its Officers, employees, Agents and assigns harmless from any liability relating to personal injury or injury to real or personal property of any kind, accruing or resulting to any other person, Contractor or corporation furnishing or supplying Work, Services, materials or supplies in connection with the performance of this Contract, whether tangible or intangible, arising out of the ordinary negligence, willful or wanton negligence, or intentional acts of the Contractor, its officers, employees, Agents, assigns or Subcontractors, in the performance of this Contract.
3. The Contractor shall not be liable for damages arising out of or caused by an alteration or an attachment not made or installed by the Contractor, or for damage to alterations or attachments that may result from the normal operation and Maintenance of the Contractor's goods.

#### **3.3.4.12 FLORIDA SALES AND OTHER TAXES**

1. The Proposer is responsible for paying to the appropriate governmental entity all applicable taxes. Any applicable tax legally enacted when the Proposals are received shall be included in the Total Contract Amount by the Proposer, whether or not yet effective or merely scheduled to go into effect.

#### **3.3.4.13 FORCE MAJEURE**

1. Neither party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached the Contract, for any failure or delay in fulfilling or performing any term of the Contract, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: acts of God; flood, fire or explosion; war, invasion, riot or other civil unrest; actions, embargoes or blockades in effect after the date of the Contract; pandemic or epidemic; or national or regional declared emergency (each of the foregoing, a "Force Majeure Event"). A party whose performance is affected by a Force Majeure Event shall give Notice to the other party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event. Notwithstanding the foregoing, it is specifically acknowledged, understood and agreed that the terms and conditions set forth herein, including, without limitation the Project milestones and schedule reflect and include all considerations necessitated by the COVID-19 pandemic ("COVID") including, without limitation, delays, suspensions and interruptions of work and/or Services that are in place or scheduled, as well as restrictions on the working environment, construction means and methods, supply chain manufacturing lead times, and logistical methods, including freight and delivery time frames. Accordingly, the parties hereby acknowledge and agree that in no event shall either party be entitled to claim COVID or the impacts thereof (including, without limitation, supply chain or logistical issues, staffing shortages, changes in market prices or conditions, or financial distress) as a Force Majeure Event. Force Majeure Events shall not otherwise limit the Authority's rights to enforce contracts.

**3.3.4.14 WAIVER**

1. The delay or failure by the Authority to exercise or enforce any of its rights under this Contract shall not constitute or be deemed a waiver of the Authority's right thereafter to enforce those rights, nor shall any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right.

**3.3.4.15 SEVERABILITY**

1. In the event that a court of competent jurisdiction holds that a provision or requirement of this Contract violates any applicable law, each such provision or requirement shall be enforced only to the extent it is not in violation of law or is not otherwise unenforceable and all other provisions and requirements of this Contract shall remain in full force and effect. All promises, requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statute, including statutes of repose or limitation.

## **Section 4**

# **Scope of Work and Requirements**



*Tampa Hillsborough County Expressway Authority*

## **REQUEST FOR PROPOSALS**

**For**

**Operational Back Office System**

**Scope of Work and Requirements**

**Project Number: T-2325**

**Issued: December 2, 2024**

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## 1 Introduction

The Tampa Hillsborough Expressway Authority's (THEA or the Authority) Operational Back Office (OBOS) will replace the aging legacy Tolling Operational Back Office System (TOBS) currently used by the Authority. The OBOS will serve as the Authority's System of record for tolls data, functioning similar to the legacy TOBS. The new OBOS is expected to provide a modern, modular, scalable System design and architecture that has high security, high availability and low capital, operational and maintenance costs. The System is expected to provide state-of-the-art Business Intelligence tools to allow the Authority to track, report and develop projections for the Authority's toll Transactional data and information.

The OBOS will receive and validate Transactions from the Authority's Roadside Toll systems (initially the legacy roadside system and eventually the Authority's new Roadside Toll Collection System (RTCS)). The OBOS will send the Transaction data received from the Roadside Toll Systems to the Florida Turnpike Enterprise (FTE) Centralized Customer Service System (CCSS) where the Transactions are applied to prepaid customer accounts or processed on customer invoices. As Transactions are processed by the CCSS, the OBOS receives status updates such as "paid", "invoiced", "no ROV found", etc. Transactions that remain unpaid through the CCSS process may be sent by OBOS to the Authority's collection agency, where the Collections agency will pursue the debt, sending Transaction statuses to OBOS. In a parallel process and concurrent with the Collection agency's pursuit of the debt, OBOS may place a vehicle Registration Stop with the Florida Department of Highway Safety and Motor Vehicles (FLHSMV) on the Florida vehicle registration associated with the unpaid tolls.

As identified in the preceding paragraph, the Authority is also contracting, through a separate process, a new Roadside Toll Collection System. While the OBOS and RTCS projects are initially developed separately, the new RTCS will eventually connect to the OBOS and will require cooperation between both the RTCS Contractor and the OBOS Contractor in the development, testing and implementation of a new RTCS-OBOS Interface.

Several key aspects of the OBOS Project and System are provided below:

- The OBOS Contractor shall be responsible for the end-to-end execution of designing, building, and maintaining the OBOS.
- The Authority will own and have access to all OBOS data.
- The OBOS shall be designed and configured to ensure uninterrupted operation, twenty four (24) hours a day, seven (7) days a week, and three hundred and sixty five (365) days a year.
- The OBOS shall be designed with high security and protection of both the System and data.
- The OBOS shall support multiple Transponder protocols and National Tolling Interoperability (NIOP).
- The Contractor shall provide an established data analytics tool such as Power BI, or Tableau for User research and reporting.
- The OBOS shall be designed and configured to ensure it is a fast, reliable, stable, accurate, timely and scalable System.

- The Contractor shall coordinate with the new RTCS contractor, external entities and agencies as directed by the Authority.
- The Contractor shall ensure a seamless transition from TOBS to OBOS.

### 1.1 Conceptual Diagrams

It is the Authority’s desire for Proposers to propose the most effective and efficient solution that meets or exceeds all Requirements of this Scope of Work. The proposed OBOS solution may be an On-premises, Cloud-based or a hybrid On-premises/Cloud-based approach. For informational and illustrative purposes only, conceptual overviews of the OBOS are shown in Figure 1 (a completely Cloud-based example) and Figure 2 (a completely On-premises based example) below. The salient components of the System are shown in the figures together with a number in a yellow circle (note that non-production elements such as the Development and Test Environments are not shown). The discussion following the figures trace the path of a toll Transaction through each of the numbered components. Note: These figures are meant only to convey the basic functions of the OBOS and external interfaces and should not be considered to dictate the required OBOS architecture. For example, rather than a separate Reporting Database, Proposers may propose a solution for report generation that provides high availability and no impact on Production Database performance.

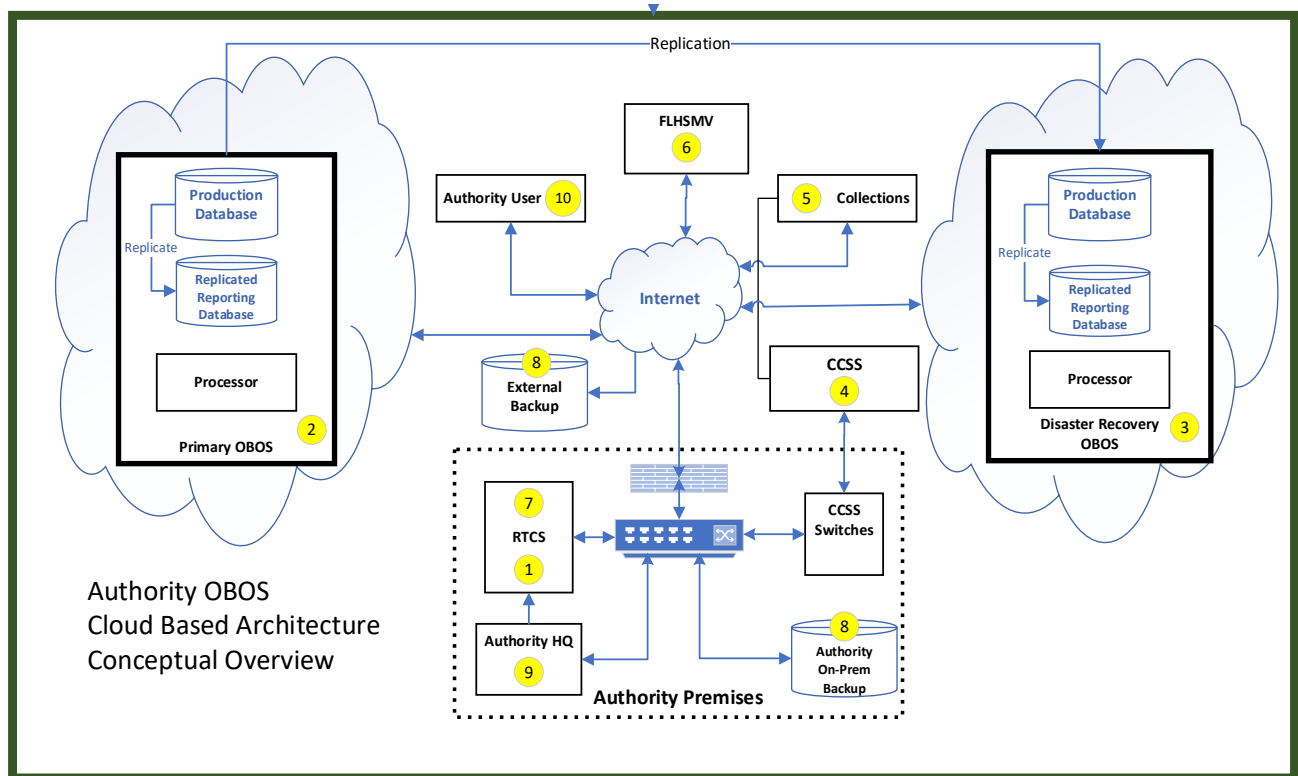


Figure 1 – Authority OBOS - Cloud Based Architecture Conceptual Overview

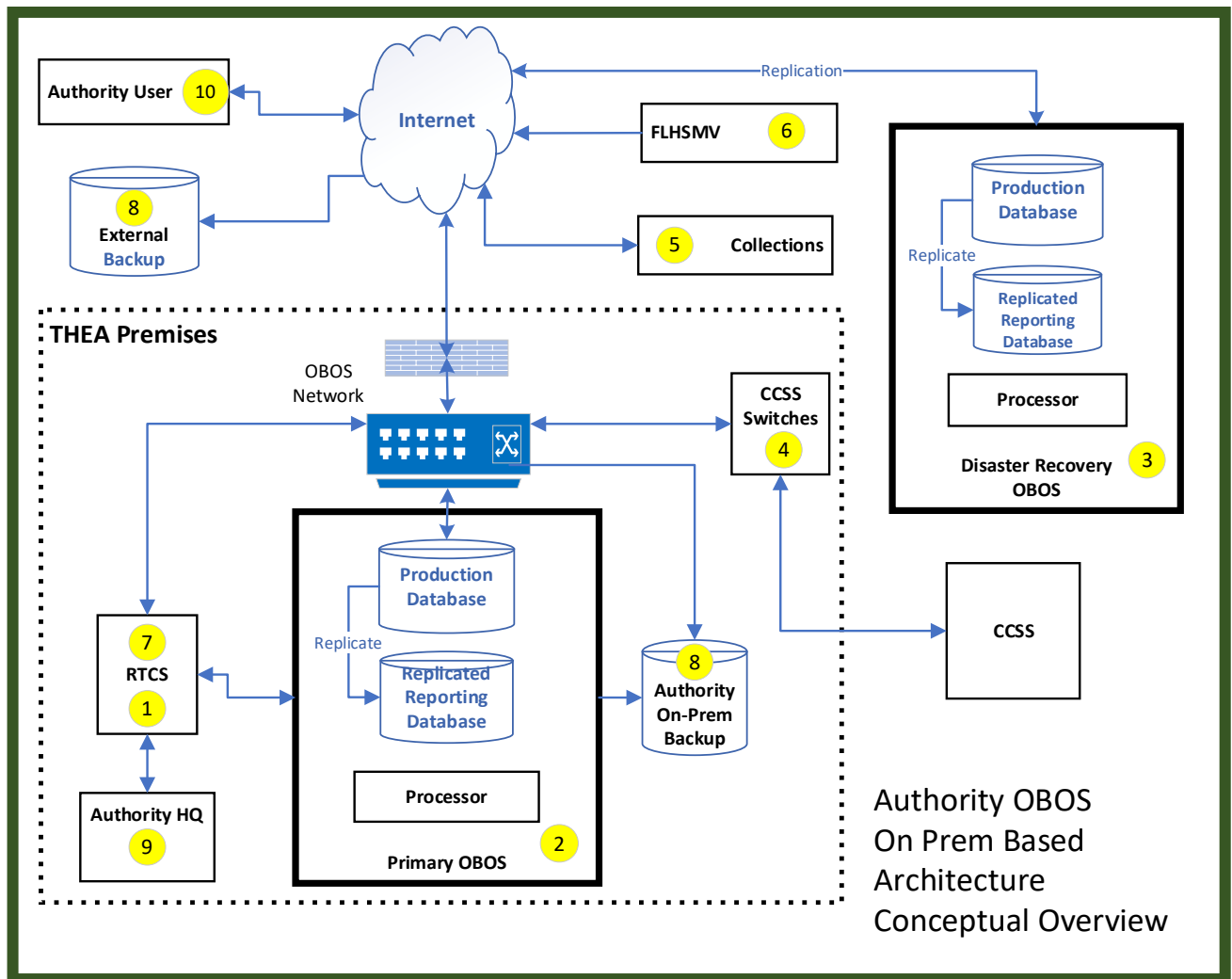


Figure 2 – Authority OBOS - On Premises Based Architecture Conceptual Overview

- The RTCS will create a Transaction consisting of toll amount, Transponder ID (if available), license plate number (and image), vehicle classification, time, date, and other information for every vehicle passing under a toll gantry. Transactions are either Transponder Based Toll Transactions (ETC) or license plate Image Based Toll Transactions (IBT) and are sent to the OBOS in real time. ETC Transactions, based on valid Transponders as indicated on a POSI list previously sent to the RTCS, are considered “Completed” and are immediately ready for further processing. IBT Transactions are “Incomplete” until the license plate number is extracted by the RTCS image processing system and sent to the OBOS. In addition to the plate number, this second message for IBT Transactions will inform the OBOS of the Image location and if a plate number could not be extracted, i.e., “Uncollectable” thereby completing the Transaction. Upon receiving a license plate number, the OBOS will retrieve and store the license plate Image from the RTCS. All RTCS Transactions are uniquely and sequentially numbered.

- 2 As RTCS Transactions are received by the OBOS they are stored in the Primary Production OBOS database and replicated to various other locations in the OBOS. Replication of data in all cases shall not impact the processing of Transactions. Completed Transactions fall into two categories as defined by the RTCS: Collectable (potentially) and Uncollectable. This status is indicated by the RTCS in the Transaction messages. Uncollectable Transactions (e.g., no transponder or license plate) are stored in the OBOS database with no further processing. Each Collectable Transaction is packaged as a Universal Financial Message (UFM) and sent, in real time, to the CCSS operated by FTE.
  
- 3 The Primary OBOS is continuously replicated to the Disaster Recovery (DR) OBOS located remotely from the production System.
  
- 4 The CCSS provides services to support the collection of tolls for the Authority. This includes posting to SunPass accounts, posting to Interoperable accounts, and sending invoices to customers with no ETC tolling accounts or whose toll could not be posted to a local or Interoperable Agency account. During this process, the CCSS will send Amendments to the OBOS indicating the progress (i.e., status) of the Transaction. The Transactions sent to the CCSS by the OBOS are divided by the CCSS into the following categories:
  1. Transactions whose Transponder or plate number matches an existing SunPass account. Barring any exceptions to the Transaction or the account these Transactions will post to the SunPass account and reconcile back to the OBOS within seven (7) Calendar Days.
  2. Transactions whose Transponder or plate number is valid on an Interoperable Agency account. These Transactions could take up to thirty (30) Calendar Days to cycle through the Interoperable Agency's system and reconcile back to the OBOS.
  3. IBT Transactions whose plate number does not match any account or cannot be posted to a valid prepaid account will follow the CCSS customer invoicing process provided the name and address (Demographics) of the vehicle owner can be found. The CCSS continuously searches to obtain Demographic information for the vehicle.
  4. If Demographic information is obtained, and the CCSS cannot collect the toll via the invoicing process, it will notify the OBOS via an Amendment wherein the OBOS will proceed with Collections via the Authority's third-party collection agency.
  
- 5 If the CCSS indicates that the Transaction could not be collected via the invoice process, the OBOS will request the Demographic information from the CCSS and send this along with the Transaction information to the Authority's collection agency who will then send notices to inform customers that their toll is due. Payment information is tracked by Collections Amendments that are sent to the OBOS by the collection agency. If the toll has not been collected after two notices and the vehicle is registered in Florida, Collections will request that the OBOS send a Registration Stop to FLHSMV. If the toll is paid in full, Collections will request that OBOS send a Stop Release to FLHSMV. Unpaid tolls remain in Collections until the toll is paid or written off by the Authority management.



- 6 The OBOS will pass Registration Stops and Releases to FLHSMV as requested by Collections. All payments for Transactions held in Collections are made directly to Collections or a designated Tax Collector’s office. OBOS is notified by Collections when a payment is made and OBOS will pass the registration release to FLHSMV as appropriate.
- 7 To facilitate the detection of lane level errors or trends, the final disposition of every Transaction is fed back to the RTCS. Appendix B – RTCS/OBOS ICD Overview contains an initial list of these dispositions. The final disposition list will be completed in the Design and Implementation Phase.
- 8 The Contractor shall provide for a periodic backup of all data and all System Software to both an off-premises location and the Authority provided On-premises location.
- 9 Access to the OBOS will be granted to various employees and consultants working at the Authority Headquarters. Access will be role based depending on the person’s position and need.
- 10 Some of the Authority employees will be granted external access to the OBOS. All OBOS access, internal and external, will be via a firewall-protected Virtual Private Network (VPN) and Multi-Factor Authentication (MFA).

## 1.2 Project Phases

The Project will follow the general project phases below.

- **Design and Implementation Phase** – This phase begins at Notice to Proceed and continues through System Acceptance. This phase includes:
  - Schedule development
  - Progress meetings
  - Development of required plans
  - System Design and Documentation
  - Transition/data migration
  - System implementation
  - Testing
  - Training
- **Operations and Maintenance Phase** – The Operations and Maintenance Phase begins upon Go-Live and continues until the end of the Contract. The Authority anticipates that the OBOS will Go-Live before the first RTCS installation. The following stages are based on this assumption, although the Contractor will be expected to support a scenario where the first RTCS installation occurs before the OBOS is ready to Go-Live. The Operations and Maintenance Phase begins when OBOS goes live and is the System of record for Transaction processing and continues until the end of the contract. The Authority anticipates that there will be three (3) Stages that will occur during the Operations and Maintenance Phase as follows:
  - Stage 1 - No new RTCS Lanes are operational and OBOS is receiving only Transactions from the legacy Roadside System lanes via TOBS and communicating with all required

internal/external interfaces. The current Image review function will continue to interface with the external Image review Contractor via TOBS.

- Stage 2 - The first RTCS Lane is installed and interfaces to OBOS. OBOS is transmitting POSI files to the new RTCS installation and is receiving Transactions and images from the new RTCS installation. With the exception of the new RTCS installation, OBOS continues to interface with TOBS for legacy Roadside System Transactions. All required internal/external interfaces continue to operate through OBOS.
- Stage 3 - All toll sites are operating with the new RTCS System. OBOS is operating with RTCS installations and all required internal/external interfaces. All legacy Roadside Toll System installations and TOBS have been decommissioned.

Because the OBOS will be fully processing Transactions from the legacy Roadside System prior to installation of the new RTCS, the Operations and Maintenance Phase will overlap with the Design and Implementation Phase until System Acceptance. During the Operations and Maintenance Phases, the Contractor is responsible for OBOS monitoring, administration, and Maintenance in its entirety in accordance with the Scope of Work Requirements.

### 1.3 Organization of SOW Document

This Scope of Work document is part of the OBOS Request for Proposal (RFP) and defines the management and technical Requirements for the development, implementation, and Maintenance of the OBOS. The document is organized into sections as defined below and each section is comprised of Requirements specific to that section. The Requirements are sequentially numbered and match one-to-one the Requirement list found in the Requirement Conformance Matrix (RCM) – Exhibit C6.

Section 1: Introduction – This section provides a high-level overview of the Project and Requirements.

Section 2: Security – This section details the security Requirements that are necessary to ensure a safe environment.

Section 3: Project Requirements – This section details the management Requirements that are necessary to ensure that the OBOS is developed within the scope, budget, and schedule required by the Authority.

Section 4: System Design and Development – This section specifies the criteria under which the OBOS design and development will be implemented and coordinated among the stakeholders.

Section 5: Functional Requirements – This section contains the functional Requirements of the Authority's OBOS Project.

Section 6: Transition, Data Migration and Testing – This section contains the Requirements related to the transition from the existing system to OBOS, migration of Transactions from the existing database to the OBOS database, and testing of all designs, implementations, and operations.

Section 7: Maintenance Requirements – This section details the Contractor's responsibility during the period in which the OBOS is in production and processing Transactions.

Section 8: Succession Requirements – This section details Requirements related to the orderly transfer of responsibility between the Contractor and the Successor at the end of the Contract.

Section 9: Performance Requirements and Key Performance Indicators– This section specifies the metrics for OBOS performance together with Invoice Adjustments if performance standards are not achieved.

Section 10: Document Deliverable Summary – This section consists of a chart indicating the key delivery milestones during the Design and Implementation Phase of the Project.

## 2 Security

System and data security are of the utmost importance to the Authority. The Contractor shall follow the National Institute of Standards and Technology (NIST) standards and other security Requirements as specified in the Scope of Work.

### 2.1 General Security

Req. #	Requirement
1	The Contractor shall comply with the Authority’s security policies during the Contract Term. The Authority will share these policies or portions of these policies as are relevant to the Contractor’s Work on this project.
2	The Zero Trust security model shall be applied consistently across all components of the OBOS network environment, including all Software applications, network infrastructure, and security controls.

### 2.2 OBOS Security

Req. #	Requirement
3	The Contractor is required to enforce a uniform security policy across all applications to ensure proper protection. The network architecture shall be designed with multiple layers of defense in accordance with the NIST Special Publication 800-53.
4	The Contractor shall take the sole responsibility for the security of the OBOS applications and data.
5	The Contractor shall establish and implement security policies required for connectivity, storage, data transmission and communication which are in line with NIST standards and the Authority’s security policies.
6	The OBOS shall follow secure coding practices, such as input validation, output encoding, secure Software development and secure error handling.
7	The Contractor and the OBOS shall be compliant, and remain compliant, with current and future NIST security standards, as applicable to the OBOS and the security of the OBOS, throughout the Contract Term. These standards include, but are not limited to, the following:
7.1	<ul style="list-style-type: none"> <li>SP 800-53 – Security and Privacy Controls for Information Systems and Organizations</li> </ul>
7.2	<ul style="list-style-type: none"> <li>SP 800-63 – Digital Identity Guidelines</li> </ul>
7.3	<ul style="list-style-type: none"> <li>SP 800-92 – Guide to Computer Security Log Management</li> </ul>
7.4	<ul style="list-style-type: none"> <li>SP 800-171 – Guidelines for Protecting Sensitive Information</li> </ul>
7.5	<ul style="list-style-type: none"> <li>FIPS 140-3 – Security Requirements for Cryptographic Modules</li> </ul>
7.6	<ul style="list-style-type: none"> <li>SP 800-122 – Guide to Protecting the Confidentiality of Personally Identifiable Information (PII)</li> </ul>
7.7	<ul style="list-style-type: none"> <li>NIST SP 800-160 Vol. 1 Rev. 1. – Engineering Trustworthy Secure Systems</li> </ul>
8	The OBOS shall employ an integrated and comprehensive anti-spam and anti-virus protection System.
9	The Cloud Services Provider, if any, proposed for housing the Authority data shall be compliant with the following standards: ISO27001, ISO27017, and ISO27018.
10	The OBOS shall be furnished with Intrusion Prevention Systems on networks with connectivity to the Internet and networks with sensitivity zones and/or trust boundaries.

Req. #	Requirement
11	The OBOS shall provide Intrusion Detection and Prevention (IDP) services, at a network layer, utilizing a Unified Threat Management system (UTM) to Alert system administrators of possible active threats.
12	The IDP Services shall be configured to provide Alerts and take preventative measures such as redirecting questionable source requests.
13	The IDP Services shall log all events and produce Alerts, including Dashboard Alerts.
14	The IDP Services shall include Transmission Control Protocol/Internet Protocol (TCP/IP) and application signature awareness configurable for Alert and/or suppression modes based on services and applications.
15	The OBOS shall be furnished with firewalls and other security features to prevent unauthorized access to any parts of the OBOS from internal or external entities.

### 2.3 Data Security

Req. #	Requirement
16	The Contractor shall be responsible for all aspects of protecting OBOS data.
17	The OBOS shall employ methods to ensure reliable data communications, file transfer, integrity of the database and tools that detect interruption to these services.
18	The OBOS database shall be encrypted.
19	The OBOS shall utilize encrypted database backup techniques to provide security and prevent unauthorized restoration of the databases.
20	The OBOS shall employ an auditing strategy that maximizes the possibility of detecting unauthorized access attempts and/or activity. This shall include an automated event notification and logging process.

### 2.4 Encryption

Req. #	Requirement
21	The Contractor shall ensure that all encryption methods for data-in-motion and data-at-rest meet or exceed the encryption standards as per FIPS-140/NIST.
22	The Contractor shall ensure that all data transfers are encrypted.
23	The Contractor shall ensure that the encryption key management system is on a separate platform from the data and the application keys are not stored with data.
24	The Contractor shall ensure that the encryption keys are accessible to the Authority.
25	The OBOS shall implement robust access controls within the encryption management system to ensure secure management and administration of cryptographic keys and encryption configurations.
26	The Contractor and the Authority shall be the only entities with access to encryption keys.

### 2.5 Network Security

Req. #	Requirement
27	The OBOS shall be furnished and configured with security controls to ensure the integrity and confidentiality of data flowing across the network. Network design and infrastructure shall incorporate secure layers of defense.

Req. #	Requirement
28	The OBOS, along with its supporting network infrastructure components, shall be deployed within a dedicated network segment that is logically and physically separated from other network segments.
29	Dynamic Host Configuration Protocol (DHCP) services shall be disabled on all network devices, including routers, switches, and other network infrastructure components, within the OBOS network environment.
30	The OBOS shall employ automated network monitoring and notification tools.
31	The OBOS shall be furnished and configured with layers of defense for internet security in accordance with industry best practices, including, but not limited to: <ul style="list-style-type: none"> <li>• Use of firewalls, anti-virus and malware protection, logging Security Information and Event Management (SIEM) and other security features to prevent unauthorized access to the OBOS.</li> <li>• Intrusion Detection</li> <li>• HTTPS</li> <li>• Encrypted network</li> <li>• Security provisioning protocols such as secure sockets layer</li> <li>• SFTP</li> <li>• Internet Protocol Security (IPSec)</li> </ul>
32	The OBOS shall be furnished and configured with mechanisms to safeguard data integrity and confidentiality of data traversing over public networks.
33	The OBOS shall be designed to ensure that measures are in place to mitigate any network security risks created by connecting to a third-party network.
34	The OBOS firewall services shall provide:
34.1	<ul style="list-style-type: none"> <li>• A sustained data throughput sufficient to meet all Requirements</li> </ul>
34.2	<ul style="list-style-type: none"> <li>• Rule based logging and Alerting</li> </ul>
34.3	<ul style="list-style-type: none"> <li>• Log reports on demand</li> </ul>
34.4	<ul style="list-style-type: none"> <li>• High availability</li> </ul>
35	The OBOS shall be deployed in a multi-tier firewall segmented network architecture, with an Access Control List (ACL) between each network segment. The network segmentation, at a minimum, shall be as follows:
35.1	<ul style="list-style-type: none"> <li>• User devices</li> </ul>
35.2	<ul style="list-style-type: none"> <li>• All remote Users</li> </ul>
35.3	<ul style="list-style-type: none"> <li>• Operational application/System servers</li> </ul>
35.4	<ul style="list-style-type: none"> <li>• Systems exposed to external Users or third-party providers</li> </ul>
35.5	<ul style="list-style-type: none"> <li>• Back-up and storage</li> </ul>
35.6	<ul style="list-style-type: none"> <li>• Development</li> </ul>
35.7	<ul style="list-style-type: none"> <li>• QA and testing</li> </ul>
36	The OBOS shall be configured to ensure that management of subsystems are restricted through firewall or Access Control Lists (ACL) over secure protocols and networks.
37	The OBOS shall be designed with segmentation and access controls which include replicated data and Disaster Recovery sets.

Req. #	Requirement
38	Data replication between the Primary Data Center (PDC) and Disaster Recovery Data Center (DRDC) shall provide the highest level of available security, utilizing encrypted connections between Systems in a replication topology using industry standard methods, such as VPN, Secure Sockets Layer (SSL), or IP Security (IPSEC).

## 2.6 Application Security

Req. #	Requirement
39	The Contractor shall ensure that any Software delivered to the Authority adheres to the specific Requirements stipulated in NIST Special Publication 800-171 and SP 800-172, as well as conforms to recognized architectural standardization, secure coding standards, and security testing procedures in line with OWASP and ISO/IEC 27001 standards.
40	The Contractor shall employ threat modeling techniques in the design and assessment of the OBOS and incorporate realistic security scenarios during application security assessment.
41	The Contractor shall perform static analysis scans as part of security-focused reviews and validation of the use of secure coding standards with every Software release.
42	The Contractor shall perform dynamic scans as part of applications testing, production deployment, regular health checks, change management requests and audits.
43	The Contractor shall develop a remediation plan for the Authority's Approval, for any deficiencies discovered during System scans or internal or external audits, and shall implement corrective actions in a timely manner, as Approved by the Authority. This plan shall include steps to ensure that the issues do not occur in the future.
44	The Contractor shall have a notification and Alert process for vulnerabilities, as well as a documented response plan for addressing newly identified vulnerabilities.
45	The Contractor shall ensure that any open-source, third-party, commercial components used as part of the Authority deliverables have been validated through security assessments and remain as such for the Contract Term.

## 2.7 Logging

Req. #	Requirement
46	The OBOS shall include comprehensive, System-wide logging capabilities (configurable) ensuring every Transaction of any type is logged, including all User access and any changes to any record or Transaction in the OBOS.
47	The Contractor shall comply with the logging standard in accordance with NIST Special Publications 800-53 and 800-92. This encompasses ensuring the availability and the configurability of logging profiles to capture events at different levels, including, but not limited to, purposes such as debugging, verbosity, detection of illegal requests, and identification of failed access attempts.
48	The OBOS shall log application activity in a common log file format, which is searchable, and human readable.
49	The OBOS shall provide authorized System administrators or support personnel with access to view and search log files through a dedicated administrative interface or tool.
50	The OBOS shall provide reports of all logged activity.
51	The OBOS shall log all additions, deletions, and changes to OBOS Users and User roles.
52	The OBOS shall log all User activities on the OBOS.



Req. #	Requirement
53	The OBOS shall log all Users’ sign-ins and sign in attempts.
54	The OBOS shall log all changes to System configurations or settings.
55	The OBOS shall generate an Alert when any logs are turned off, or any logs or log data is tampered with.
56	The OBOS shall log changes to applications, databases, and operating System s.
57	The OBOS shall log all Alerts.
58	The information captured by the OBOS logging shall include Username, password (encrypted), originating IP address, date, time and success/failure.

## 2.8 Access Control

Req. #	Requirement
59	The OBOS shall employ a third-party User authentication and management Software module for all access control functions.
60	A System administrator account shall be provided with the ability to create, modify, or delete User roles and parameters at any time.
61	Virtual Private Networks and Multi-Factor Authentication (VPN) shall be required for all Users accessing the OBOS. This includes Users accessing the OBOS outside of the Authority’s local network and Users accessing the OBOS on-site via the Authority’s local network.
62	The Contractor shall provide the Authority with full OBOS application administration access rights.
63	The OBOS shall be configured to enforce strong passwords to access the OBOS in accordance with industry standards.
64	The OBOS shall require Users to change their password at configurable intervals (e.g. – every ninety (90) Calendar Days). The OBOS shall provide Users with automatic password change notifications.
65	All OBOS and applications sign-on/access attempts/events, either failed or successful, local or remote shall be recorded, logged and saved for and tracked for security and audit purposes.
66	The OBOS shall include functionality to monitor the OBOS continuously and automatically for unauthorized access attempts. Any access violations shall generate an Alert, be recorded, and immediately reported to the Authority.
67	The OBOS shall be furnished with a commercially available Role Based Access Control (RBAC) module for all OBOS applications.
68	The OBOS shall allow Authority staff to add/remove Users with a System administration account that is separate from the System administrator account used by the Contractor.
69	Access permissions shall be granular and configurable, allowing administrators to define read, write, execute, and other access rights as appropriate for each resource.
70	The Contractor shall, in coordination with the Authority, develop a User Authorization Matrix (UAM) which defines User System rights and roles. This UAM shall be submitted to the Authority for review and approval no later than thirty (30) Calendar Days prior to the scheduled ORT and UAT.
71	The OBOS shall provide access only to Users with Approved access rights as defined within the Approved UAM.

Req. #	Requirement
72	The OBOS shall support up to fifty (50) concurrent Users, simultaneously performing OBOS functions (e.g., accessing System applications, utilizing Dashboards, performing screen searches, running reports, etc.) without experiencing any degradation in OBOS response or operation.
73	The OBOS shall provide controls to lock out Users after a configurable number of unsuccessful login attempts. Locked out Users shall be unlocked either after a configurable time period or by a System Administrator.
74	The Contractor shall follow Authority offboarding and onboarding procedures related to access control.
75	The Contractor shall ensure User accounts that are not accessed for a configurable number of Calendar Days are either automatically disabled or have their passwords expired. This requirement shall be configurable by User role.
76	The OBOS shall support User management functionality including, but not limited to:
76.1	<ul style="list-style-type: none"> <li>adding/deleting Users</li> </ul>
76.2	<ul style="list-style-type: none"> <li>unlocking/locking accounts</li> </ul>
76.3	<ul style="list-style-type: none"> <li>modifying User email address</li> </ul>
76.4	<ul style="list-style-type: none"> <li>managing User access/roles</li> </ul>
76.5	<ul style="list-style-type: none"> <li>Initiating a User password reset</li> </ul>
77	The Software shall include a user management interface or tool that allows administrators to disable user accounts with a single step without requiring manual intervention to unassign the user from assigned resources.
78	When an administrator initiates the disabling of a user account, the Software shall automatically identify and remove the user from all resources, permissions, groups, or roles to which they are assigned, including but not limited to folders, files, applications, and System configurations.
79	When a User account is disabled, the OBOS shall ensure that:
79.1	<ul style="list-style-type: none"> <li>All active sessions, processes or ongoing tasks assigned to that User in the System are terminated immediately.</li> </ul>
79.2	<ul style="list-style-type: none"> <li>No data is left in an indeterminate state because of termination of batch processes or such termination.</li> </ul>
79.3	<ul style="list-style-type: none"> <li>Roll back shall be capable for all records and data associated with that User session.</li> </ul>
80	The deletion process shall prompt administrators to confirm their actions and provide warnings or notifications about the potential impact of deleting the User, such as the removal of access permissions or the transfer of ownership for shared resources.
81	Upon successful deletion of the User account, the Software shall update relevant audit logs, User activity records, and Access Control Lists (ACLs) to reflect the removal of the User.

## 2.9 Customer Information and Privacy

Req. #	Requirement
82	The Contractor shall consider all data as confidential and maintain all data in a secure manner that protects personal identification/identity information in accordance with the Authority's Data Security Policy and NIST 800-122.
83	All customer information is confidential and shall not be disclosed or released unless explicitly directed in writing by the Authority.

Req. #	Requirement
84	The Contractor shall refer all external requests, inquiries, subpoenas, and other official information requests to the Authority. The Authority shall be immediately notified of such requests.
85	The Contractor shall not sell, use, or distribute general or specific Authority, customer, or other Contract-related information and data externally for any reason unless authorized by the Authority.

### 3 Project Requirements

#### 3.1 Project Management

The Contractor shall utilize industry best practices throughout the Project for Project management.

##### 3.1.1 General Project Management

Req. #	Requirement
86	The Contractor shall be responsible for successfully completing all Requirements, unless specifically revised and Approved by the Authority, in writing.
87	The Contractor shall be responsible for supporting and coordinating its activities with the Authority and entities with which the OBOS shall interface.
88	The Contractor shall provide effective project management throughout the Contract Term, managing the design, development, testing, implementation and Maintenance of the OBOS.
89	The Contractor’s Project Manager shall be the primary contact for the Contractor, shall oversee the Project, and shall interact and coordinate with the Authority’s Project Manager or other designated Authority staff.
90	The Contractor shall execute the Project in strict accordance with the Contract, this Scope of Work and Approved plans and schedules developed in accordance with the Requirements throughout the Project.
91	The Contractor shall be responsible for monitoring the progress of the Work throughout the duration of the Contract, documenting, and reporting on all aspects of the Project.
92	The Contractor shall cooperate with other Authority-selected contractors to ensure a fully integrated, seamless OBOS.

##### 3.1.2 Project Management Plan

The Project Management Plan (PMP) describes how the Contractor will implement and manage the Project, including staffing, scheduling, communication procedures for controlling all correspondence, Submittals and other communications between the Contractor and the Authority, as well as communications with other third-party entities.

Req. #	Requirement
93	The Contractor shall develop a Project Management Plan which includes separate sections for the Design and Implementation Phase and the Operations and Maintenance Phase of the Project. The Design and Implementation Phase section shall address the Contractor’s strategy and management during design, development, testing, and transition. The Operations and Maintenance Phase section shall address management of the on-going OBOS operations, administration, and Maintenance.
94	The Contractor shall develop the PMP and submit the PMP to the Authority for review and Approval no later than thirty (30) Calendar Days from Notice To Proceed (NTP).
95	The Contractor shall ensure the PMP addresses the following areas:
95.1	<ul style="list-style-type: none"> <li>• Scope and Deliverables – identify the tools, products and processes to be utilized by the Contractor to ensure the Project scope and all related Deliverables are in accordance with the Requirements.</li> </ul>

Req. #	Requirement
95.2	<ul style="list-style-type: none"> <li>Organization Structure - a project organization chart that is a graphic representation of the Contractor’s staff hierarchy and indicates functional areas of responsibility, including any Subcontractor responsibilities. This section shall include the identification of all Key Personnel, shall describe the Contractor’s policies and practices with selection of qualified staff, the performance of background checks and the assignment of staff to handle sensitive information.</li> </ul>
95.3	<ul style="list-style-type: none"> <li>Reporting - a description of the reporting methods to be utilized by the Contractor.</li> </ul>
95.4	<ul style="list-style-type: none"> <li>Security – describe how all aspects of the OBOS are secured against unauthorized access, data loss, and data integrity loss (while in transit and while at rest), and describe the methods by which unauthorized access, data loss and data integrity loss will be detected and include controls to maintain the confidentiality, integrity and security of information.</li> </ul>
95.5	<ul style="list-style-type: none"> <li>Incident Management – include a guide for the response and recovery process in the event of a security breach, System issues and/or other potential risk issues. The narrative shall include how the Contractor will communicate incidents to the Authority.</li> </ul>
95.6	<ul style="list-style-type: none"> <li>Change Control and Change Management - defines the change control, testing, and deployment procedures for all modifications to the OBOS and its associated Hardware, Software, firmware, configuration parameters, etc. and the process to mitigate negative impacts of change related to people, processes, data and technology</li> </ul>
95.7	<ul style="list-style-type: none"> <li>Coordination - identify stakeholders (e.g. agencies, Subcontractors, and interface entities) and the Contractor’s approach to coordinating critical activities</li> </ul>
95.8	<ul style="list-style-type: none"> <li>Communications – the Contractor’s approach and process related to the escalation and resolution of Project issues</li> </ul>
95.9	<ul style="list-style-type: none"> <li>Project Schedule - a description of the process for reporting and tracking adherence to the Project schedule as well as the Contractor’s approach to mitigating schedule delays</li> </ul>
95.10	<ul style="list-style-type: none"> <li>Key Performance Indicators (KPI) - a description of the process to ensure compliance with KPIs as well as the process for monitoring, tracking and reporting KPIs</li> </ul>
95.11	<ul style="list-style-type: none"> <li>Invoicing – document the invoice submission process including invoice back-up information.</li> </ul>
95.12	<ul style="list-style-type: none"> <li>Project Management Tools - identify the tools and products used to manage the Project and the internal controls instituted by the Contractor to guarantee the successful delivery of the Project.</li> </ul>
95.13	<ul style="list-style-type: none"> <li>Document Version Control – identify the document versioning system that will be used to ensure that all document versioning is consistent and easily understood.</li> </ul>
96	<p>The Contractor shall ensure that the PMP is updated and submitted to the Authority for Approval whenever there are material changes to any element of the Contractor’s Project Management approach and process.</p>
97	<p>Unless otherwise agreed to in writing by the Authority, changes to the PMP shall not relieve the Contractor from liability to the Authority for any damages resulting from the Contractor's failure to perform its obligations under this Contract.</p>

### 3.1.3 Software Development Plan

Req. #	Requirement
98	The Contractor shall develop a Software Development Plan that describes the Contractor’s approach, methods and process for ensuring the successful design, development, implementation, on-going operation and Maintenance of the OBOS.
99	The Software Development Plan shall include separate sections for the Design and Implementation Phase and the Operations and Maintenance Phase of the Project.
100	The Contractor shall submit the Software Development Plan to the Authority for review and Approval no later than thirty (30) Calendar Days from NTP.
101	<p>The Software Development Plan shall address the following areas:</p> <ul style="list-style-type: none"> <li>• Identification of resources specifically for the Software development (developers, System engineers, test engineers, Quality Assurance and Control staff, etc.)</li> <li>• Identification of adherence to coding standards such as OWASP</li> <li>• Software development methods to be utilized (e.g., agile, waterfall, etc.)</li> <li>• Software code Maintenance</li> <li>• Software configuration and configuration management</li> <li>• Change management</li> <li>• Version control</li> <li>• Updates and patches</li> <li>• Code reviews</li> <li>• Software Code documentation</li> <li>• Source control</li> <li>• Environments</li> <li>• Testing</li> <li>• Regression testing</li> <li>• Software Quality Control process</li> <li>• Management and control of development efforts</li> <li>• Authority involvement in the development process</li> <li>• Issue identification process</li> <li>• Risk identification and management</li> </ul>

### 3.1.4 Quality Assurance and Quality Control Program and Plan

Req. #	Requirement
102	The Contractor shall establish and maintain a Quality Assurance (QA)/Quality Control (QC) Program throughout the Contract Term. The QA/QC program shall include, but not be limited to the following:
102.1	<ul style="list-style-type: none"> <li>• preventing, detecting, notifying, tracking and correcting deviations from any Requirement</li> </ul>
102.2	<ul style="list-style-type: none"> <li>• assuring the accuracy, completeness, efficiency and timeliness of OBOS processes</li> </ul>
102.3	<ul style="list-style-type: none"> <li>• The use of reasonableness checks that evaluate accuracy and efficiency such as analyses of abnormal deviations in quantity, volume, dollar amounts, elapsed time and address items as needed.</li> </ul>
103	The Contractor shall be responsible for ensuring that the QA/QC program is followed by all Subcontractors.

104	The Contractor shall develop and provide a QA/QC Plan which shall be submitted to the Authority for review and Approval no later than sixty (60) Calendar Days from NTP.
105	<p>The Contractor’s QA/QC Plan shall include, but not be limited to the following areas:</p> <ul style="list-style-type: none"> <li>• QA/QC staff</li> <li>• OBOS design</li> <li>• Software development</li> <li>• Installation</li> <li>• Transition and data migration</li> <li>• Equipment purchase, delivery and validation</li> <li>• Testing</li> <li>• Configuration management</li> <li>• QA/QC of subcontractors</li> <li>• Handling of Personally Identifiable Information</li> <li>• Quality review and verification</li> <li>• Reporting and metrics</li> <li>• Documents/Deliverables</li> <li>• Defect management</li> <li>• Continuous Improvements: lessons learned, regular audits to identify opportunities for process improvements</li> </ul>

**3.1.5 Risk Management Plan**

Req. #	Requirement
106	The Contractor shall develop and submit to the Authority for review and Approval, a Risk Management Plan no later than thirty (30) Calendar Days from NTP.
107	The Risk Management Plan shall include separate sections for the Design and Implementation Phase and the Operations and Maintenance Phase of the project.



Req. #	Requirement
108	<p>The purpose of the Risk Management Plan is to identify, assess, and mitigate potential risks associated with the OBOS project. By effectively managing risks, the Contractor shall ensure the successful execution of the Project within scope, schedule, and budget. The Risk Management Plan shall include:</p> <ul style="list-style-type: none"> <li>• A risk assessment strategy</li> <li>• A risk register that documents project risks as they are identified throughout the life of the Project. The risk register shall include the following information: <ul style="list-style-type: none"> <li>○ Risk description</li> <li>○ Risk severity</li> <li>○ Impact and likelihood assessment</li> <li>○ Mitigation strategies</li> <li>○ Responsible parties</li> <li>○ Current status</li> <li>○ Action plans and timelines</li> </ul> </li> <li>• A risk monitoring and control strategy</li> <li>• Contingency plans for all high-impact risks with the potential to disrupt the Project or the collection of the Authority tolls. The level of the contingency plan shall be commensurate with the likelihood of the risk occurring, as Approved by the Authority, and shall be kept up to date.</li> <li>• A description of how the Authority and designated stakeholders are informed about Project risks, risk management and mitigation activities.</li> <li>• How lessons learned will be collected, documented and presented to the Authority.</li> </ul>
109	<p>The Contractor shall review the risk register with the Authority, at a minimum, monthly during the Project and the risk register shall be kept up to date.</p>

### 3.1.6 Disaster Recovery Plan

Req. #	Requirement
110	<p>The Contractor shall provide a comprehensive DR Plan detailing the process for continued OBOS operations and performance of OBOS and business functions in the event of an unplanned service disruption. The DR Plan shall be provided to the Authority for review and Approval no later than ninety (90) Calendar Days prior to the scheduled DR Test.</p>
111	<p>The DR Plan, at a minimum, shall include the following:</p> <ul style="list-style-type: none"> <li>• Events and situations that will trigger the DR process</li> <li>• Process for ensuring that the Recovery Point Objective (RPO) and Recovery Time Objective (RTO) targets are met (See Appendix J – Key Performance Indicators).</li> <li>• Contact list and notification process</li> <li>• Plans/alternatives for resuming external interfaces and communications</li> <li>• Off-site storage of all OBOS Software, Documentation, agreements and data</li> <li>• Technical and operations support</li> <li>• Routine off-site backup</li> <li>• Disaster Recovery procedures: step by step instructions for initiating the recovery process, roles and responsibilities, communication channels and escalation procedures. Data recovery/restoration to the Primary OBOS after a DR event</li> <li>• Testing and validation of return to normal operations</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>• Description of the processes after event recovery in order to analyze and report on recovery success, or recommend modifications to the recovery process to improve future performance</li> <li>• Vendor and supplier management – ensure contracts and service level agreements include DR.</li> <li>• Annual testing of the DR System.</li> </ul>
112	<p>The Contractor shall update the Disaster Recovery Plan and submit the updated version to the Authority for review and Approval at least once per year or no later than thirty (30) Calendar Days from any major OBOS Hardware or Software change and/or after a disruption in business.</p>

### 3.1.7 Security Management Plan

Req. #	Requirement
113	<p>The Contractor shall provide a comprehensive Security Management Plan detailing the Contractor’s approach to providing security for the OBOS, demonstrating compliance with the System security Requirements outlined in Section 2, Security above, and the Contractor’s approach to managing System security for the OBOS. The Contractor shall develop the Security Management Plan and submit it to the Authority for review and Approval no later than one hundred and twenty (120) Calendar Days from Notice To Proceed (NTP).</p>
114	<p>The Security Management Plan, at a minimum, shall include the following:</p> <ul style="list-style-type: none"> <li>• Roles and responsibilities for Contractor staff related to security management</li> <li>• The Contractor’s approach to implement, manage and comply with all Scope of Work security Requirements, including: <ul style="list-style-type: none"> <li>○ General security</li> <li>○ OBOS security</li> <li>○ Data security</li> <li>○ Encryption</li> <li>○ Network security</li> <li>○ Application security</li> <li>○ Logging</li> <li>○ Access control</li> <li>○ Customer Information and Privacy</li> </ul> </li> <li>• Risk identification and management/mitigation</li> <li>• Malware and Intrusion Detection and Prevention</li> <li>• Incident response and implementation of modified procedure due to lessons learned</li> <li>• Security awareness and training</li> <li>• Security audits</li> <li>• Tools and processes to be used in the management of System security</li> <li>• Contractor’s approach to data privacy, confidentiality, integrity and availability</li> <li>• Procedures associated with managing security for the System and mitigation of security-related events</li> <li>• Compliance with the Authority policies and the Contractor’s approach to managing and implementing modifications to those policies</li> <li>• Approach to monitoring and implementing modifications to NIST standards</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>Approach to monitoring and managing System security for on-premise and hosted Environments</li> </ul>
115	The Contractor shall be required to comply with the Security Management Plan, the security-related Scope of Work Requirements, and applicable policies for the duration of the contract.
116	The Contractor shall be required to update and submit the Security Management Plan bi-annually <b>and</b> upon the Authority's request after a security-related event.

### 3.1.8 Internal Controls

Req. #	Requirement
117	The Contractor shall establish and the OBOS shall include internal controls to minimize risks, safeguard assets, ensure the accuracy of records and data and promote the efficiency of the System and operations. The Contractor shall follow all applicable NIST standards.
118	The OBOS shall include functionality to prevent and detect revenue loss, errors, omissions, irregularities, and improper actions.
119	The Contractor shall report, in writing, to the Authority any potential or actual revenue loss, errors, omissions, irregularities, and improper actions immediately upon identification.
120	The Contractor shall ensure that the OBOS remains current, and in compliance with, all federal and state applicable laws and regulations.

### 3.1.9 Project Communications

Req. #	Requirement
121	The Contractor and all Key Personnel shall participate in a project kick-off meeting which shall be held no later than fourteen (14) Calendar Days from NTP.
122	The Project Manager shall conduct a progress meeting with the Authority at least every two weeks during the Design and Implementation Phase. The specific schedule for these meetings shall be determined during the Project kick-off meeting.
123	The Project Manager shall be responsible for conducting a project status meeting with the Authority at least monthly during the Operations and Maintenance Phase of the Contract.
124	The Contractor shall establish and maintain effective communication with the Authority throughout the Project. The Contractor shall clearly communicate the scope of work, schedule, deadlines, Deliverables, and other Project Requirements to the Contractor's staff and Subcontractors.
125	The Contractor shall utilize Microsoft Teams to enable all meeting attendees to share and view documents in real time during meetings, whether attendees are virtual or in person.
126	The Contractor shall develop meeting agendas for all Project meetings and shall provide agendas to all requested attendees at least two (2) Business Days in advance of the scheduled meeting.
127	The Contractor shall record minutes of all meeting discussions and shall distribute copies of the draft notes to attendees within two (2) Business Days of the meeting for the Authority's review and Approval.
128	At a minimum, the Contractor shall include in all meeting notes a complete list of attendees, whether present or virtual (web/phone), descriptions of issues discussed, any decisions made, direction given, remaining open issues, and action items.

### 3.1.10 Monthly Implementation Progress Reports

Req. #	Requirement
129	During the Design and Implementation Phase, the Contractor shall submit a Monthly Implementation Progress Report (MIPR) by the tenth (10 <sup>th</sup> ) Business Day of each month that provides a status report for the preceding month and a lookahead for the upcoming month. The initial MIPR shall cover the first full calendar month following NTP.
130	<p>The Contractor shall include the following in each MIPR:</p> <ul style="list-style-type: none"> <li>• Progress for the prior month for all Project activities including, but not limited to: milestone completion dates, procurement and delivery of Equipment/materials, third-party services, Hardware installation, Design Development, Testing, dependencies, Migration, Training and Documentation.</li> <li>• A risk register that identifies Project risks, the potential impacts on the Approved, Baseline Project Schedule, and actions taken by the Contractor to address these risks. The risk register will follow the format Approved in the Risk Management Plan.</li> <li>• Electronic copies of the updated Project Schedule.</li> <li>• The Updated Project Schedule shall be provided in both MS Project and PDF.</li> <li>• Progress on activities requiring coordination with third-parties.</li> <li>• Deliverable status, including a schedule for Submittals to take place within the next month.</li> <li>• A 30-day look-ahead on all activities scheduled.</li> <li>• Any issues and their status/resolution that occurred during the prior month.</li> </ul>

**3.1.11 Monthly Maintenance and Performance Progress Reports**

Req. #	Requirement
131	During the Operations and Maintenance Phase, the Contractor shall submit a Monthly Maintenance and Performance Report (MMPR) for the Authority’s review and Approval by the tenth (10 <sup>th</sup> ) Business Day of each month and provide a summary of the activities of the preceding month and a look ahead for the current month. The initial MMPR shall cover the first full calendar month following Go-Live.
132	<p>Prior to Go-Live, the Contractor shall coordinate with the Authority to define the format and content to be included within each MMPR. At a minimum, each MMPR shall include:</p> <ul style="list-style-type: none"> <li>• Issues and resolutions from the prior period</li> <li>• Issues and resolutions from the current period</li> <li>• Key Performance Indicator results for the prior month</li> <li>• All potential delays and problems in addressing outstanding issues or Software Updates</li> <li>• 30-day look-ahead on activities</li> <li>• Other items as deemed noteworthy by the Authority or the Contractor</li> <li>• A Risk Register that identifies any Project risks and actions taken by the Contractor to address these risks. The risk register will follow the format Approved in the Risk Management Plan.</li> <li>• Any release/updates that occurred in the prior month or which are planned in the next month</li> <li>• Patch Management Updates</li> <li>• System Operations reports and Maintenance reports</li> <li>• Preventative Maintenance activities planned for the upcoming month and completed Preventative Maintenance activities for the prior month</li> </ul>

Req. #	Requirement
133	At the sole discretion of the Authority, on-going Maintenance progress reports may be required more frequently than monthly if conditions or progress require more timely discussion.

### 3.2 Project Schedule

#### 3.2.1 Project Schedule - General

Req. #	Requirement
134	No later than thirty (30) Calendar Days after receiving NTP, the Contractor shall provide the Authority, for review and Approval, a detailed critical path Project Schedule, including all identifiable activities and tasks to be accomplished and related critical dates throughout the Design and Implementation Phase of the Contract. This Project Schedule shall be an updated and more detailed version of the Preliminary Project Schedule provided by the Contractor as part of their Proposal. <b>Note:</b> Stage 2 and Stage 3 schedules shall be coordinated with the Authority and the RTCS contractor, and because they are not in the sole control of the Contractor, Stage 2 and Stage 3 dates do not need to be included in the Project Schedule provided to the Authority by the Contractor.
135	The Project Schedule shall show that a fully functional OBOS, meeting all specified Requirements, will be delivered, and successfully implemented by the Go-Live date.
136	The Project Schedule shall include all detailed steps and security elements that are required to accomplish the major Project sequences, such as System Design, System development, testing, interfaces, and data migration.
137	The Project Schedule shall clearly identify all critical paths and shall include all milestones and dependencies or any required interaction with the legacy contractor, the Authority, or other parties.
138	The Project Schedule shall not contain hidden lag durations, and the schedule shall display any available slack.
139	The Contractor shall include Submittals of all Deliverables and their review and update cycles on the Project Schedule. The Project Schedule shall contain the Authority review times in accordance with the Requirements.
140	The Contractor shall prepare the Project Schedule using Microsoft Project, in adequate detail to coordinate and control the Project. The Contractor shall submit the Project schedule to the Authority in both Microsoft Project and PDF.
141	Once the Project Schedule has been reviewed and Approved by the Authority, it shall become the Approved, Baseline Project Schedule and used as the official schedule against which the Project’s progress will be measured.
142	The Contractor shall monitor the Approved, Baseline Project Schedule as the Project progresses and provide a monthly Updated Project Schedule to the Authority along with a thirty (30) day look-ahead. The Contractor shall report all progress against the Approved, Baseline Project Schedule displaying baseline start and end dates as well as actual start and end dates
143	Submission of the monthly Updated Project Schedule shall not release or relieve the Contractor from full responsibility for completing the Work within the time specified in the previous Approved, Baseline Project Schedule.

Req. #	Requirement
144	The Contractor is responsible for adhering to the Approved, Baseline Project Schedule. All Requirements, Key Performance Indicators and Liquidated Damages shall be measured against the Approved, Baseline Project Schedule.

### 3.2.2 Schedule Delays

Req. #	Requirement
145	The Contractor shall identify and report to the Authority all potential and actual delays related to the Approved, Baseline Project Schedule as soon as the Contractor becomes aware of the possibility of a delay.
146	In the event of any delay, the Contractor shall develop and submit a recovery schedule (in the form of a proposed, Updated Project Schedule) which includes reasons for the delay, the effect on milestones and Deliverables, how lost time may be recovered and proposed schedule changes. The Updated Project Schedule shall be submitted to the Authority for review and Approval within five (5) Business Days of the identification of a delay in the Approved, Baseline Project Schedule.
147	The Authority’s Approval of any changes to the Approved, Baseline Project Schedule shall not release or relieve the Contractor from full responsibility for completing the Work within the time specified in the Approved, Baseline Project Schedule.

### 3.3 Documentation

Req. #	Requirement
148	The Contractor shall be responsible for Documentation supporting all Project activities in accordance with the Contract and Requirements.
149	The Contractor shall submit all Documentation in English unless otherwise directed by the Authority.
150	Throughout the Contract Term, the Contractor shall provide updated versions of any Approved Contractor developed plans, manuals, design documents, training materials, or any other documents developed under this Contract no later than (30) Calendar Days from any significant changes.
151	The Contractor shall develop and maintain all Documentation utilizing Microsoft Office Software, where appropriate.
152	All documents shall be submitted in native format (e.g., MS Word, MS Excel, MS Visio, etc.) and searchable PDF.
153	The Contractor shall include headers, footers, and page numbers on all Submittals. As appropriate, the Contractor shall also include a table of contents, title sheet, list of illustrations/figures, list of tables, version number and revision histories.
154	The Contractor shall store all Project Documentation electronically on a secure SharePoint site and it shall be readily accessible to the Authority throughout the Contract Term. Appropriate backup procedures shall be established and maintained as Approved by the Authority.
155	The Contract shall not remove any Documentation from the SharePoint site without approval by the Authority, in writing.
156	All changes to documents shall be tracked via SharePoint on the System.
157	The Contractor shall submit all Documentation formatted for printing on 8.5” x 11” and/or 11” x17” pages (e.g., for large figures and graphics), as required. Documentation shall be

Req. #	Requirement
	formatted such that printed material can be placed into a manageable three-ring binder for end User reference, as required.
158	The Contractor shall ensure that all Documentation submitted and included in Submittals only pertains to the Authority Project.
159	The Contractor shall ensure that any Documentation references/cross references, including those to other Project documents, are kept up to date and accurate throughout the term of the Contract.
160	All Documentation submitted to the Authority shall become the property of the Authority who shall have the right to reproduce any portion of the Documentation in part or whole.
161	Contractor logos or other such markings shall not be included on any Project Documentation submitted to the Authority, without prior written approval by the Authority.
162	The Contractor shall utilize a document versioning system for all documents so that all document versioning is consistent and easily understood. Any changes to a document, once submitted to the Authority, shall create a new version utilizing the document versioning system.

### 3.3.1 Submittal Reviews and Approval

Req. #	Requirement
163	All Deliverables and Work products submitted, including but not limited to design documents, planning documents, manuals and test results, shall require the Authority’s Approval before being Accepted as final.
164	The Contractor must have the Authority’s Approval on all Deliverables tied to a milestone payment before payment will be released by the Authority for the given milestone. The Authority shall have the ultimate determination as to whether or not a Deliverable is Approved and final.
165	The Contractor shall schedule at least two review/revision cycle iterations for each document submitted by the Contractor for the Authority’s review, comment, and Approval.
166	The Contractor shall allow and schedule at least ten (10) Business Days for the Authority’s review and Approval of each document Submittal which is seventy five (75) pages or less.
167	The Contractor shall allow and schedule at least fifteen (15) Business Days for the Authority’s review and Approval of each document Submittal which is more than seventy five (75) pages.
168	The Authority review periods for multiple, simultaneous, or overlapping document Submittals shall be scheduled consecutively, not concurrently.
169	The Contractor shall provide written responses to the Authority’s comments (utilizing the same comment matrix provided containing the Authority’s comments) no more than ten (10) Business Days after the comments are provided to the Contractor for documents that are seventy five (75) pages or less.
170	The Contractor shall provide written responses to the Authority’s comments (utilizing the same comment matrix provided containing the Authority’s comments) no more than fifteen (15) Business Days after the comments are provided to the Contractor for documents that are more than seventy five (75) pages or more.
171	The Contractor shall submit an empty, multi-column comments matrix with each document. The Authority will enter its comments into the matrix, and the Contractor shall respond to the Authority’s comments and track the status of all comments through resolution of each comment and Approval of the document.



Req. #	Requirement
172	Upon receipt of the Authority comments, the Contractor shall review the comments and deliver written responses to the comments addressing the issues, as necessary.
173	The Contractor shall provide to the Authority, two versions of all edited/ revised versions of documents; a red-lined version showing all comments, responses and edits/ revisions and a clean version with all edits/ revisions accepted.
174	The Authority reserves the right to reject Submittals prior to performing a detailed review due to the Documentation failing to meet the purpose and intent of the Deliverable. In the event a Deliverable is rejected, the Authority will notify the Contractor of the basis for rejection in writing. Rejection of a Deliverable will not constitute a delay caused by the Authority.
175	The Contractor shall update and resubmit documents to address comments submitted by the Authority in sufficient time to maintain the Approved, Baseline Project Schedule.
176	After the Contractor receives and reviews the initial set of comments on each document, and after the Contractor has addressed the Authority's comments and produced a new version of the document, the Contractor shall then be responsible for coordinating with the Authority to schedule a document review and comment resolution workshop if requested by the Authority. The Contractor shall ensure all key decision makers and subject matter experts are available during the workshop so that all remaining open comments can be resolved. The Contractor shall then be responsible for producing and submitting a final document for the Authority's review and Approval.
177	The Authority's Approval of documents shall not relieve or limit the Contractor's responsibility to provide an OBOS compliant with all Contract provisions and Requirements unless otherwise Approved in writing by the Authority.
178	The Contractor shall address the Authority's comments and shall resubmit the Deliverables until the Authority Approves the document. Any need for re-submittal shall not be considered a delay caused by the Authority.
179	Deviations from the Requirements that may be contained within Contractor submitted documents, even though the document may be Approved by the Authority, shall not have the effect of modifying any Requirement specified in the Contract unless such deviations are explicitly disclosed by the Contractor and explicitly Approved by the Authority. Only formal requests to the Authority, from the Contractor, for waivers or specification changes that are formally Approved by the Authority shall modify the Requirements.
180	The Contract shall not proceed with any Work related to a document Submittal without written Approval of the document from the Authority.

### 3.4 Requirements Traceability Matrix

The Contractor shall adopt the Requirement Conformance Matrix (RCM) which was submitted as part of the Contractor's Proposal to create and maintain the Requirements Traceability Matrix (RTM). The RTM shall be submitted with both the System Design Document and Test Documentation for each Formal Test to validate that the design supports all Requirements and that all Requirements are tested. The RTM shall be updated to include requirements from the appendix documents and any additional functionality from the Contractor's Proposal as described in the detailed Requirements below.

Req. #	Requirement
181	The Contractor shall create the Requirements Traceability Matrix based on the Requirement Conformance Matrix (RCM) with the addition of Requirements derived from the text of this SOW, the referenced appendices and the Contractor's Proposal and any changes which are Approved by the Authority. The initial version of the RTM shall be provided to the Authority for review and Approval with the System Design Document (SDD).
182	The Contractor shall develop the RTM using Microsoft Excel and coordinate with the Authority on the design, layout and overall format of the RTM.
183	The RTM shall show the origin of Requirements, any changes to Requirements, and the source of Approval for those changes.
184	The RTM shall be submitted to the Authority for review and Approval with each version of the System Design Document (SDD).
185	The Contractor shall update the RTM as needed to verify compliance throughout OBOS design, development, transition, testing, and deployment phases, and into ongoing Maintenance and operations. Any changes to the RTM shall be submitted to the Authority for review and Approval.
186	The Contractor shall include on the RTM, the reference data for each Requirement such as references to specific sections of the SDD where the Requirement is addressed as well as references to each test area and specific test scripts where the Requirement is tested, and the date when the test results are Approved by the Authority.
187	The RTM shall identify and map Requirements to the test phases and shall be used to verify and document compliance with Requirements.
188	The Contractor shall update the RTM to cross reference specific test plans and test scripts and submit an updated RTM with every submission of any Formal Test plan and test scripts ahead of Formal Testing.

### 3.5 Staffing

Req. #	Requirement
189	The Contractor shall provide qualified personnel sufficient in quantity, expertise, and experience to meet all Requirements in accordance with the Project Schedule and the Requirements.
190	The Contractor shall manage Key Personnel, notify the Authority of any changes to Key personnel and propose replacements for Key Personnel in accordance with the Contract.
191	The Authority shall have the right to reject, in its sole discretion, any replacement Key Personnel proposed by the Contractor.
192	All staff members who will be interacting with the Authority shall be able to communicate in the English language.

### 3.6 Training

Req. #	Requirement
193	The Contractor shall provide a training program to the Authority staff and/or designated representatives which includes comprehensive OBOS operation and navigation, including but not limited to System administration, System Maintenance, System operation, reporting, screen searches, Dashboards and Business Intelligence tools.
194	The Contractor shall develop and submit to the Authority for Approval a Training Plan that documents the Contractor's training program and processes for the initial training of the

Req. #	Requirement
	Authority, as well as addressing periodic training that may be necessary whenever there are material changes in OBOS functionality or features and/or changes to key Authority staff throughout the Contract Term.
195	The Training Plan shall be submitted to the Authority for review and Approval no later than sixty (60) Calendar Days prior to the scheduled training in accordance with the Approved, Baseline Project Schedule.
196	The Training Plan shall address and describe how the Contractor will meet the training Requirements and shall include a detailed training schedule outlining the specific courses, for recommended attendees based on topics, User profiles, User access and/or roles including dates and duration.
197	The Contractor’s training program shall be conducted on site at the Authority offices and shall include hands-on training modules and demonstrations of all OBOS features, tools, screens, and reports as well as other topics determined to be of utility to the Authority staff. All training sessions shall be recorded by the Contractor and made available to the Authority for future use.
198	The Contractor shall develop and provide all materials, supplies and Equipment necessary for training. The Contractor shall provide both electronic and hard copies of the training materials for each person being trained.
199	The Contractor shall submit for the Authority's review and Approval, all training materials, including a comprehensive training manual and individual lesson plans, no later than thirty (30) Calendar Days in advance of the scheduled training in accordance with the Approved, Baseline Project Schedule. Training manuals shall include both User and Instructor guides.
200	The Contractor shall coordinate with the Authority to develop a list of the Authority staff and/or their designees who will require training.
201	The Contractor’s training program shall include “train the trainer” training to allow the Authority to train new Authority staff as needed.
202	The Contractor shall establish a process to obtain feedback on the training process and make appropriate updates to the training program and materials.
203	The Contractor shall provide updated training based on discrepancies, errors or omissions found during initial training, as identified by the Authority.
204	The Contractor shall provide updated training content and materials after major System changes.
205	The Authority and their representatives shall have the right to attend any training sessions. The Contractor shall video record all training sessions and provide copies of all training materials in electronic format for future use by the Authority.

## 4 System Design and Development

This section outlines the OBOS Design and Implementation Phase of the Project which includes Software Design, development, testing, cyber security characteristics, transition, data migration, backup, and Disaster Recovery. These tasks will involve the Authority's participation and Approvals throughout the process. The design and development process shall also identify how the Hardware and Software meet the functional, technical, security, operational, and Maintenance Requirements.

### 4.1 System Design Documentation

Req. #	Requirement
206	<p>The Contractor shall schedule and hold design workshops with the Authority. The purpose of these workshops includes, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>• To review, discuss and refine (if necessary) the Requirements with the intent of ensuring that the Contractor has a complete understanding of all Requirements.</li> <li>• To discuss and document the Contractor’s methodology and approach and to review in detail areas such as: <ul style="list-style-type: none"> <li>○ Hardware/Cloud architecture</li> <li>○ Communications architecture</li> <li>○ Software architecture <ul style="list-style-type: none"> <li>- Encapsulation</li> <li>- Abstraction</li> <li>- Containers</li> <li>- Third-party Software</li> <li>- Cloud or other support Services</li> </ul> </li> <li>○ Database <ul style="list-style-type: none"> <li>- Transaction structure and status review</li> <li>- Replication</li> <li>- Stored procedures</li> <li>- Partitioning</li> <li>- Encryption</li> <li>- Access controls</li> <li>- Security audits/penetration test</li> <li>- Database hardening</li> </ul> </li> <li>○ Data Migration <ul style="list-style-type: none"> <li>- Mapping and source destination of Transactional data</li> <li>- Inclusion and approach to Transaction statuses</li> </ul> </li> <li>○ System and data backup</li> <li>○ Data recovery and timing scenarios</li> <li>○ Disaster Recovery</li> <li>○ Network</li> <li>○ Security</li> </ul> </li> </ul>
207	<p>Any change, refinement or optimization of a Requirement shall be submitted to the Authority, in writing, for review and Approval. The Contractor shall clearly identify the implications that any proposed changes have on cost, performance, risk, schedule, System constraints or agility, and long-term Maintenance and Operations.</p>

Req. #	Requirement
208	<p>Should modifications to Requirements be necessary, based on the outcome of Requirements refinement workshops and at the Authority’s sole discretion, the Scope of Work and Requirements shall be updated to develop a Conformed Scope of Work and Requirements Document. Once Approved and finalized by the Authority, the Conformed Scope of Work and Requirements Document shall become a Contract Document and be the governing document for the Contact Scope of Work and Requirements. The Contractor shall be responsible for updating the RTM to be in compliance with the Conformed Scope of Work and Requirements Document.</p>
209	<p>Following the design review workshops, the Contractor shall deliver to the Authority for review and Approval a System Design Document (SDD) in accordance with the Approved, Baseline Project Schedule and Conformed Scope of Work and Requirements Document (if applicable) that addresses all applicable Requirements. The SDD shall address all Requirements in the RTM. An updated RTM shall be submitted to the Authority for review and Approval with each version of the SDD.</p>
210	<p>The SDD shall include a comprehensive description of the OBOS design, including but not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Description of the System and Equipment including overall design and specific features with descriptive drawings, screens shots and reports as needed.</li> <li>• Software Design Documentation</li> <li>• Hardware, including the physical location of Hardware (e.g., server room rack layouts)</li> <li>• A comprehensive description of the database, including all tables, fields, views, and other database object names. The Database Documentation shall include the following: <ul style="list-style-type: none"> <li>• Entity relationship diagram</li> <li>• Database schema</li> <li>• Data dictionary</li> <li>• Partitions</li> <li>• Third-party Software modules, including version numbers and Documentation</li> <li>• Required licenses</li> <li>• External interfaces and the secure method used to protect these interactions</li> <li>• Configurable parameters</li> <li>• Subsystems</li> <li>• System Alerts</li> </ul> </li> <li>• Development processes, including logical data design, physical data design and interface development.</li> <li>• ICDs for all external interfaces. This includes API Documentation that outlines all functional aspects and web-service endpoints within which data will flow to and from external interfaces</li> <li>• Data storage methodology including encryption methods for all types and status of data including at rest, in transit and active i/o.</li> <li>• Data integrity safeguards to ensure data quality (e.g. duplicate filters, file integrity, address validation)</li> <li>• Reporting/Dashboard Documentation</li> <li>• Business Intelligence Tools</li> <li>• Implementation and installation of Software and Hardware components</li> <li>• Configuration tables</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>• Workflow diagrams</li> <li>• Use cases to identify functionality and to be used for testing</li> <li>• Network architecture design diagrams</li> <li>• Access control management ( i.e. – User roles and requirements for permissions, etc.)</li> </ul>
211	The Contractor shall incorporate the Authority's comments and the results of any working sessions into the SDD and resubmit the System Design Document and RTM as appropriate.
212	Upon the Authority's approval of the SDD, the Contractor shall update the RTM to reflect any changes in Requirements Approved during the design process.
213	As part of the System Acceptance Test (SAT), the Contractor shall submit for the Authority's Approval an As-built SDD, RTM and the OBOS configuration document that reflects the OBOS as developed. The As-built SDD, RTM and OBOS configuration documents shall be submitted to the Authority for review and Approval no later than sixty (60) Calendar Days after completion and approval of the SAT.
214	Authority-Approved changes to the as-built design that occur during the Contract Term shall be reflected in an updated version of the SDD. The updated SDD shall be submitted no later than thirty (30) Calendar Days after implementation of the change.

#### 4.2 System Attributes – On-premises and Cloud Architectures

Req. #	Requirement
215	<p>The OBOS shall include the following System architecture attributes:</p> <ul style="list-style-type: none"> <li>• Security – Highly secure</li> <li>• Availability – High availability (See Appendix J – Key Performance Indicators)</li> <li>• Performance – High service capacity and throughput for continuous Transaction processing</li> <li>• Efficiency – Highly efficient reporting, GUI interaction, and database design for fast queries and processing</li> <li>• Durability — Features within the System design that ensure the System is performing as expected over time, even when unexpected events occur.</li> <li>• Capacity – Sufficient storage and replication Services to support the Authority tolling</li> <li>• Scalability – Ensuring the System can seamlessly accommodate varying workloads and evolving demands.</li> <li>• Flexibility – Support changes, new functionality, faults tolerate, new concepts over the lifetime</li> <li>• Sustainability – Modular, backward compatible design and System adaptations over the lifetime.</li> <li>• Maintainability – Proactive monitoring, preventive and remedial Maintenance</li> </ul>

##### 4.2.1 On-premises

The following Requirements apply to any portion of the System which is On-premises based.

Req. #	Requirement
216	The Contractor shall furnish and install all Hardware, Software, and all components necessary to provide a complete OBOS, including but not limited to servers, storage, switches, firewalls, cabling, communication/networking gear, conduits, Hardware and other ancillary Equipment.

Req. #	Requirement
217	The Contractor shall provide the Authority with detailed Documentation/Plans related to any facility build-out including rack details for all OBOS Equipment, no later than sixty (60) Calendar Days after NTP.
218	The OBOS architecture shall include all Hardware needed to provide a complete and comprehensive OBOS that meets the Requirements.
219	It is preferred that OBOS server Hardware and associated peripheral Hardware/components be supplied from the same manufacturer. All OBOS Hardware Equipment performing similar functions shall be of the same manufacturer, if possible.
220	All devices will have the manufacturer's passwords changed as soon as received and installed.
221	All physical Hardware shall be labeled with asset tags and asset identification numbering noting all Hardware as property of the Authority, and all wiring and connectors shall be labeled per industry standards. The format for the asset tags and asset identification numbering shall be submitted to the Authority for review and Approval.
222	The Contractor shall create and retain an asset tracking repository. Components of the repository shall include manufacturer, make, model, and location. The repository schema shall be submitted to the Authority for review and Approval. The final repository shall be reviewed and Approved by the Authority during the Design and Implementation Phase.
223	The Contractor shall track all On-premises assets in the Authority's ArcGIS database. This database shall be maintained by the Contractor with any Updates throughout the Contract.
224	The Contractor shall ensure all OBOS Equipment is installed in accordance with the National Electric Code (NEC) and any applicable local and state codes.
225	<p>The Contractor shall coordinate with the Authority and follow industry best practices to ensure all Contractor-installed cabling and wiring is appropriately labeled for easy identification by the Authority or Contractor personnel and is kept neat and bundled separately from other Authority Equipment and wiring. Industry best practices include:</p> <ul style="list-style-type: none"> <li>• Identify cables using color to create a quick and reliable identification system for OBOS cabling and/or differentiate types of cables from one another (e.g. power and communications).</li> <li>• Apply clear, concise labels (e.g. self-laminating, wrap-around, heat-shrink) to both ends of Equipment cables (e.g. network, patch and power).</li> <li>• Separate and bundle "like" cables (e.g. keeping power and communication cables bundled separate from one another).</li> <li>• Use only the length of cable needed to prevent excess cabling.</li> <li>• Wrap bundled cables with fasteners (e.g. velcro) to provide a clean, neat look.</li> <li>• Document all cables and cable tray runs.</li> <li>• Support cable runs with trays and/or baskets.</li> </ul>
226	The Contractor shall maintain a current inventory of all OBOS Hardware electronically on a secure SharePoint site, and provide updated serial numbers, models, manuals, and Warranty information. The information shall be provided to the Authority and shall be updated as components are replaced.
227	When disposing or decommissioning assets, the Contractor shall ensure all sensitive data is properly sanitized or destroyed before disposal, and Documentation of disposal shall be performed.
228	The Contractor shall be responsible for evaluating and verifying the available infrastructure of each location where Equipment will be installed by the Contractor.



Req. #	Requirement
229	The Primary OBOS shall be located in a server room provided by the Authority at their office located at 1104 East Twiggs Street, Tampa, Florida, 33602.
230	The Contractor shall be responsible for connecting to the Authority’s network edge device. In the case of an On-prem solution, this means providing the necessary connection to Authority’s network edge, while in the case of a Cloud solution, the Authority will provide the ISP connection, and no Contractor Hardware will be required at Authority HQ. The Contractor will need to coordinate with the Authority for network configuration (IP addresses).
231	The Contractor shall identify minimum bandwidth requirements for the ISP in the case of an edge solution.
232	The following will be provided by the Authority at the Authority’s location: <ul style="list-style-type: none"> <li>• One Equipment rack with secure locking mechanisms</li> <li>• Electrical power with UPS and backup generators</li> <li>• Server room environmental controls</li> <li>• Storage Hardware and associated Equipment/components – this will be used for backup, not as the primary storage.</li> </ul>

#### 4.2.2 Cloud

The following Requirements apply to any portion of the Contractor System which is Cloud based.

Req. #	Requirement
233	The Contractor shall procure, provision, and make ready all necessary Cloud infrastructure, Software, storage, etc.
234	The Contractor shall ensure the physical location of all Systems storing/warehousing the Authority data remains within the continental United States.
235	The OBOS shall be hosted at a Tier 2 or higher facility and by a Cloud Service Provider that has Fedramp IaaS Certification. The Cloud Services implemented for this Project need not be in a Fedramp environment.
236	The OBOS shall provide network connectivity from the Cloud to the Authority and third-parties required for the OBOS. These connections shall be secured with multi-layers of protection.
237	The Contractor shall provide any master agreements/contracts, service level agreements, licensing, or other agreements between the Contractor and the Cloud Service Provider to the Authority.

#### 4.3 System Design - General

Req. #	Requirement
238	The Contractor shall work in partnership with the Authority staff and their designees to provide a comprehensive, fully tested, and integrated solution that meets or exceeds all Requirements.
239	The Contractor shall coordinate meetings with third-parties (i.e., changes in IP addresses, firewall settings, etc.).
240	Where available, all Software, Hardware, Equipment, devices, and any associated materials/peripherals shall be new, commercially available off-the-shelf, commonly used for similar system solutions and include extended warranties.

Req. #	Requirement
241	The OBOS shall be highly configurable and shall have appropriate interactive screens to allow authorized staff to manage the various configuration parameters required for proper OBOS operation.
242	The Contractor shall provide an OBOS architecture that is fully redundant, eliminating opportunities for a single point of failure.
243	The OBOS redundancy design shall ensure that there is no loss or corruption of data.
244	The Contractor shall provide the following Environments:
244.1	Primary OBOS – This Environment shall be used for on-going Transaction processing and the Authority operations. This includes a Production Database and a replicated Reporting Database
244.2	Disaster Recovery OBOS – This Environment shall be used in the event of a loss of the Primary OBOS due to a disaster. The DR is a full replication of the Primary OBOS.
244.3	Development OBOS – This Environment shall be to be used by the Contractor’s software developers to create OBOS functionality.
244.4	Test OBOS – This Environment shall be to be used to verify functionality prior to deployment to the Primary OBOS. The Test OBOS shall replicate the Primary OBOS environment in software versioning, database structure, etc. so that it is a valid test for how the OBOS will operate in production. The OBOS Test Environment shall be capable of load testing both from a processing and storage capacity.
245	The Contractor shall keep the Development, Test and Disaster Recovery environments separate and distinct from the Production environment.
246	The Test and Development environments shall be available as needed.
247	The Test environment shall be utilized to verify the initial development as well as changes to the OBOS Software prior to deployment to the Production environment. This environment shall also be used by the Contractor for informal demonstrations.
248	The Contractor shall maintain the Development and Test Environments to the latest version of the OBOS Software running on the Production environment. The purpose of this is to ensure that any Software modifications have been tested on the current Software version before deployment to the Production environment.
249	The Contractor shall maintain data within the Test environment such that OBOS development and changes can be adequately tested, and their performance verified.
250	The Contractor shall be responsible for the installation, configuration/tuning, and testing of all OBOS Software.
251	The Contractor shall obtain, monitor, maintain and manage all Software license and subscription renewals.
252	The Contractor shall provide Hardware and Software test tools necessary for simulating Transaction and other data transfers as defined by the ICDs.
253	<p>All databases shall be designed and configured to protect against the possibility of data loss and corruption. This includes at a minimum, protection against the following:</p> <ul style="list-style-type: none"> <li>• Data loss/data corruption caused by Hardware and/or Software issues</li> <li>• System failure</li> <li>• Inadequate data storage capacity</li> <li>• Communication loss</li> <li>• Power outages, voltage drops or surges, extreme temperatures</li> <li>• Deletion by unqualified and unauthorized Users</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>Cyber Attacks (i.e., rogue Users/hackers, virus attacks, ransomware, etc.)</li> </ul>

#### 4.4 Version Control

Req. #	Requirement
254	The Contractor shall select and implement a version control system (VCS) suitable for managing Software development code.
255	The Contractor shall establish a centralized code repository within the selected version control system to store all Software development code.
256	The version control system shall support access control mechanisms to restrict access to code repositories based on User roles and permissions.
257	The version control system shall provide versioning capabilities to track changes made to code files over time, including the ability to view and compare different versions of files.
258	The version control system shall support branching and merging workflows to facilitate parallel development efforts and integration of code changes from different branches.
259	Developers shall be required to provide descriptive commit messages when making changes to code files, including details such as the purpose of the change and any related issues or ticket numbers.
260	The Contractor shall implement backup and Disaster Recovery procedures to ensure that code repositories are regularly backed up and can be restored in the event of data loss or system failure.
261	The Contractor shall define and implement a retention policy agreed to by the Authority specifying the duration for which code repositories and version history shall be retained before archiving or purging.
262	The version control system shall maintain audit logs of all User actions and changes made to code repositories, including User identities, timestamps, and details of the actions performed.
263	The version control system shall comply with the Requirements outlined in the National Institute of Standards and Technology (NIST) Special Publication 800-171, to ensure the secure storage and management of Software development code.
264	The Contractor shall document procedures and guidelines for using the version control system effectively, including instructions for code repository setup, branching and merging workflows, and access control management.

#### 4.5 Scalability, Capacity, and Performance

Req. #	Requirement
265	The OBOS architecture design, including all Hardware and Software, shall be modular to support future interfaces, upgrades to processors, memory, storage, the operating System, and databases without revision to the OBOS architecture.
266	The OBOS design shall prioritize modularity, flexibility, and compatibility with emerging technologies and standards to ensure long-term scalability, adaptability, and readiness for future technological advancements.
267	The OBOS shall accommodate changes in technology given anticipated upgrades, growth, and technology advances during the Contract term.
268	The OBOS shall be capable of accommodating increases related to additional facilities which may be added to the Authority's operational environment.

Req. #	Requirement
269	The OBOS architecture shall support the storage of all required Transaction data, images, and all data exchange interface files in accordance with the Authority Data Retention Policy – see Appendix L – Data Retention Schedule.
270	Throughout the life of the Contract, the OBOS shall be capable of processing/storing at least 200% of a typical day’s worth of data including during peak volume times without experiencing System slowness or degradation. Current volumes for the Authority Transactions are provided in Appendix K – Authority Volumes for reference.

#### 4.6 Data Retention

Req. #	Requirement
271	The Contractor shall retain data in accordance with Appendix L – Data Retention Schedule.
272	All data maintained on the OBOS shall be available to authorized Users.
273	Archived data shall exist in both a System isolated from the OBOS and On-premises in an Authority provided storage array indefinitely.
274	The OBOS shall be capable of retrieving archived data within seventy-two (72) hours from the time of the request.
275	As requested by the Authority in writing (and only as requested by the Authority), the Contractor shall securely destroy the Authority specified OBOS data in all formats (e.g., Server, Disk, CD/DVD, backup tape, and paper). Deleted data shall be permanently deleted and be unrecoverable. Certificates of destruction shall be provided to the Authority.
276	The Contractor shall not destroy any data or records without specific Approval of the Authority in writing except as identified for deletion in Appendix L.
277	The OBOS shall employ a systematic method for archiving data.
278	The Contractor shall provide a Plan for how archived data is retrieved.

#### 4.7 Backup and Restore

The Contractor shall establish a backup System retaining all data, images, Software and System information required to fully restore the production OBOS. The backup and restore process shall ensure that no data is lost in the event of an OBOS malfunction, disaster, or malicious interference with the OBOS.

Req. #	Requirement
279	The Contractor shall provide for a periodic backup of all data and all System Software to both an off-premises location and the Authority provided On-premises location.
280	The OBOS shall log all backup and recovery activities.
281	The Contractor shall simulate backup and recovery annually. The method of this verification will be defined during the Design and Implementation Phase.
282	In the event of backup failure, the OBOS shall immediately alert and notify the Authority.
283	System Backup: The Contractor shall provide and utilize a System backup that replicates all System provisioning, configuration, User access, custom and third-party Software as well as all other files and modules necessary to complete the OBOS.
284	The System Backup process shall consist of a full System backup at least monthly and incremental backups each time a change is made to any of the parameters defined above.
285	The System Backup shall exist in both a System isolated from the OBOS and On-premises in an Authority provided storage array.
286	The System Backup shall provide for selective restoration of any OBOS functions.

Req. #	Requirement
287	Transactions Backup: The Primary OBOS Production Database shall be replicated to the Primary OBOS Reporting Database and the Disaster Recovery Production Database (see the section below on Disaster Recovery).
288	In addition to the above replication Requirements, the Primary Production Database shall be stored in a secondary off-site database and in the Authority on-site storage array. This storage may be accomplished via replication, snapshots or other techniques recommended by the Contractor.
289	The Contractor may utilize other backup and replication techniques offered by System and/or Cloud Service Providers subject to the Authority's Approval.

#### 4.8 Disaster Recovery

Req. #	Requirement
290	THE DR site shall be off-site, a meaningful distance from the Primary OBOS (at least 100 miles) to prevent correlated failures.
291	The DR OBOS shall always be a complete duplicate (e.g., data, Software, configuration, size, applications, third party modules, and processing power of the Primary OBOS subject to the Recovery Point Objective (RPO). See Appendix J – Key Performance Indicators
292	Failover to the DR System shall be accomplished via a direct action (not automatically) by the Contractor with the Authority's Approval.

#### 4.9 Time Synchronization

Req. #	Requirement
293	The OBOS shall utilize the Network Time Protocol (NTP) to maintain accurate time.
294	The OBOS shall include time synchronization to ensure that all OBOS components maintain time synchronization with each other. The Contractor shall coordinate with the RTCS Contractor on time synchronization.
295	The OBOS shall include a minimum of two network time servers each synchronized to a minimum of three independent stratum 1-time servers.
296	The OBOS shall support both a primary and backup NTP time source.
297	The OBOS shall automatically switch between primary and backup NTP time sources, as necessary.
298	All time stamps in messages and stored in the database shall be UTC (ISO 8601 extended format), formerly called Greenwich Mean Time (GMT). The format is: YYYY-MM-DDTHH:MM:SSZ. The OBOS shall provide the appropriate conversions for daylight savings, time zones, month boundaries, year boundaries, and day of the week for human readable displays and reports.
299	The Contractor warrants that any Deliverable, whether Hardware, firmware, middleware, custom or commercial Software, or internal components, subroutines, and interface therein which performs any date and/or time data recognition function, calculation, or sequencing, will provide accurate date/time data and leap year calculations.

#### 4.10 Database

Req. #	Requirement
300	The Primary OBOS shall retain transactional data for approximately six (6) years, from the original lane Transaction date, within the Production Database. Upon reaching the end of the sixth (6 <sup>th</sup> ) year the System shall automatically archive the oldest year's data for long-term storage and retrieval. Data organization within the Production Database should allow for efficient retrieval based on Transaction date. Non-transactional data shall not be subject to automatic archiving.
301	The database design shall incorporate field-level validation whenever possible to limit the possibility of incorrect data entry.
302	The database design shall support the integration of transactional data from multiple sources, including migrated Transactions, existing lanes, and RTCS lanes. It should provide clear indicators within the data to distinguish the source of each Transaction.
303	All databases shall be designed and configured to support future Hardware and Software upgrades.
304	All database Software shall be kept current. Current is defined as within one patch release of the database manufacturer's most current general production version.
305	All databases shall be furnished with tools for investigating and adjusting the database performance, session-level activity, scheduled jobs, alert notification, and configuration parameters.
306	Update and use of the Reporting Database (or equivalent) shall, at no time, impact the performance of the OBOS.
307	The Reporting Database (or equivalent) shall be replicated from the Production Database in near real time.
308	The OBOS shall allow database Users to request query processing time prior to running the query.
309	The OBOS Reporting Database (or equivalent) and related indexes shall be optimized for reports/Dashboards and the use of Business Intelligence.
310	The OBOS shall allow for storage of current, past, and pending Authority toll rate schedules.

#### 4.11 OBOS Interfaces

The OBOS shall exchange data with four external entities. Three of these (CCSS, Collections, and FLHSMV) are currently being used by the TOBS system. The fourth interface (RTCS) shall be refined concurrently by the Authority and the OBOS/RTCS Contractors during the Design and Implementation Phase.

In addition to the above interfaces, there will be a fifth interim interface, to the TOBS Interim Database between the TOBS and the OBOS to facilitate Go-Live. This interface will operate with the production TOBS in either a test mode prior to Go-Live or a live production mode during Stage 1 and Stage 2. Appendix M will contain more information on the TOBS Interim Database Design, Transaction API, and ICD, and it will be provided to shortlisted Proposers.

Req. #	Requirement
311	The OBOS shall interface with the following external systems in accordance with the interfaces described and specified in the appendices and outlined below:



Req. #	Requirement
311.1	<ul style="list-style-type: none"> <li>● Roadside Toll Collection Systems (RTCS)               <ul style="list-style-type: none"> <li>○ Appendix B – RTCS/OBOS ICD Overview – This Interface Control Document (ICD) provides an overview of the data sent from the RTCS to the OBOS (Transactions and images) as well as requests sent from the OBOS to the RTCS. The ICD shall be refined during the Design and Implementation Phase.</li> </ul> <p>This ICD contains an overview of the POSI List. The POSI List informs the RTCS of all valid transponders that are acceptable at the Authority for payment of tolls. A full POSI List file is sent to the RTCS once per day followed by incremental POSI List files indicating changes in transponder status that are sent to the RTCS periodically throughout the day. Note that the POSI List is a pass-through of the POSI List received by OBOS from the CCSS.</p> <p>The OBOS shall send Approved toll fare tables to RTCS as outlined in Appendix B – RTCS/OBOS ICD Overview.</p> </li> </ul>
311.2	<ul style="list-style-type: none"> <li>○ During the Design and Development Phase, the Contractor shall work in cooperation with the RTCS Contractor to finalize the details of the data content and messaging protocol as well as the expected behavior of each respective System related to these communications. This document will include details on communication protocols, transport mechanisms, data types, data fields, URL’s, endpoints, error response and processing, VPN and security as well as other applicable details identified in the development of this document. The OBOS Contractor shall be responsible for submitting a final OBOS/RTCS ICD to the Authority.</li> </ul>
311.3	<ul style="list-style-type: none"> <li>○ The OBOS shall communicate with the RTCS in conformance with the ICD.</li> </ul>
311.4	<ul style="list-style-type: none"> <li>○ The Contractor shall provide all network infrastructure, including network security and bandwidth, required to support all RTCS/OBOS communications. The communications and the interconnects between RTCS/OBOS and TOBS are all provided in Figure 1 for a Cloud based OBOS implementation and Figure 2 for an On-prem based Architecture.</li> </ul>
311.5	<ul style="list-style-type: none"> <li>● CCSS – The following list identifies the current CCSS interfaces. The Proposer shall be responsible for incorporating the latest version(s) of the interfaces at the time of Design and testing.               <ul style="list-style-type: none"> <li>○ Appendix C1 – CCSS Away Agency ICD V 6.19– This ICD defines the Transactions sent from the OBOS to the CCSS (outbound) as well as the Amendments sent from the CCSS to the OBOS (inbound) in response to each Transaction. It also covers Amendments sent from the OBOS to the CCSS in the event a Transaction must be modified. This entire package is called the Universal Financial Message (UFM). Note that Transactions are not batched but are sent individually to the CCSS in the UFM.</li> <li>○ Appendix C2- ICD – UFM Data Source Table – This table shows the relationship of RTCS Transaction data to the data required by the UFM.</li> <li>○ Appendix C3 – CCSS Interoperable Agency ICD - Get Image Request v1.1 – When the CCSS determines that an invoice must be sent for payment of the toll, it will request the license plate Image from the OBOS. This ICD defines that request and response.</li> </ul> </li> </ul>



Req. #	Requirement
	<ul style="list-style-type: none"> <li>○ Appendix C4 - POSI List – This ICD defines sending the full POSI List from the CCSS to the OBOS once per day followed by incremental POSI List files throughout the day.</li> <li>○ Appendix C5 - CCSS Vector – FLDOT Get Demographics Interface _v4.0 – When the CCSS cannot collect on an invoice, it notifies the OBOS. The OBOS will then use this ICD to retrieve the registered owner’s name, address, and other Demographics to pass on to the Authority collection agency.</li> <li>○ Appendix C6 - CCSS Recall File – This is a daily file created by the OBOS to inform the CCSS of Transactions that must be recalled. The file is populated both manually and via communication of incorrect license plate numbers from the RTCS.</li> </ul>
311.6	<ul style="list-style-type: none"> <li>● Collection Agency <ul style="list-style-type: none"> <li>○ Appendix D – THEA Collections/OBOS ICD – This ICD defines the following: <ul style="list-style-type: none"> <li>▪ The information (Demographic and Transaction) that the OBOS will send to the Collections Agency to initiate the collection process. It also defines the feedback (Amendments) from the Collections Agency to the OBOS indicating the payment state of the collection account.</li> <li>▪ The data exchange between the Collections Agency and the OBOS to initiate a Registration Stop and Release on a vehicle registered in Florida for which the Authority toll could not be collected. This ICD also describes the exchange of requests and acknowledgments between the OBOS, and the FLHSMV required in the Registration Stop and Release process.</li> <li>▪ The method to allow Collections to retrieve images from the OBOS for noticing.</li> </ul> </li> </ul> </li> </ul>
311.7	<ul style="list-style-type: none"> <li>● TOBS -Appendix M TOBS Interim Database (IDB) Design, Transaction API, and ICD <ul style="list-style-type: none"> <li>○ The production TOBS will send real time transactions to the OBOS as specified in Appendix M. Note that this includes to the following data exchanges. <ul style="list-style-type: none"> <li>▪ Transactions - Transaction record sent by TOBS to OBOS in real time.</li> <li>▪ Images – Image retrieved by OBOS based on Transaction ID and URL path.</li> <li>▪ POSI list as a pass-through of full and incremental files received from CCSS.</li> </ul> </li> </ul> </li> </ul>
312	All OBOS interfaces shall be through a VPN connection and shall be encrypted.
313	The OBOS shall perform validations on all data and files received via the external interfaces.
314	The Contractor shall ensure that all ICDs under their control are kept current and accurate over the Contract Term.
315	The OBOS shall be updated to adhere to any changes to ICDs over the Contract Term. Minor changes, including coordination and testing, shall be incidental to the Contract and shall not be at any additional costs to the Authority.
316	All messages between the OBOS and external interfaces including expected CCSS Amendments and requests shall be included in the System Design Document together with a description of required processes when the message is accepted or rejected. The System Design Document shall also include Alerts and actions to be taken if a response is not received within a configurable time.

Req. #	Requirement
317	The OBOS shall utilize secure protocols for all external interfaces to ensure the safe transmission of data between external systems. REST Protocol is preferred unless an alternative protocol is deemed more suitable and is Approved by the Authority.
318	The OBOS shall support regeneration and retransmission of files and data, as necessary.

## 5 Functional Requirements

### 5.1 Transaction Processing

The definition of a Transaction, from an OBOS perspective, depends on the context but it always starts with a vehicle passing a tolling point on the roadway. In the first case, a Transaction is defined as a message sent to or from the OBOS containing the information related to parameters such as vehicle characteristics, date/time, amount and current status. In the second case, a Transaction is the collection of information from Transaction messages that are stored in the database. At any point in time, as appropriate, a database Transaction may consist of the following:

- RTCS data including associated image(s) required for IBT Transactions
- Universal Financial Message data (UFM)
- Amendments (CCSS and Collections, including Registration Stop/Release)
- Transaction status

The following Requirements relate to the various processes necessary to ensure accurate and timely collection of tolls and information to the Agency.

Req. #	Requirement
319	The OBOS shall support Transaction processing as detailed in the Lifecycle Flowcharts (see Appendix A1 – OBOS Transaction Lifecycle Flow and Appendix A2 – OBOS Transaction Lifecycle: A to Z).
320	The OBOS shall process all Transactions accurately and in a timely manner in accordance with Approved ICDs, Approved System Design Documents and all Requirements.
321	The OBOS shall process all information received from and sent to external interfaces in real time without causing a “bottleneck” at any point in the process.
322	The OBOS shall process Transaction data as it is received.
323	The OBOS shall interface with the following entities: <ul style="list-style-type: none"> <li>• TOBS</li> <li>• RTCS</li> <li>• CCSS</li> <li>• Collection Agency</li> <li>• FLHSMV</li> </ul>
324	The OBOS shall accept and process both ETC and IBT Transactions.
325	The OBOS shall track, update, and maintain a current and historical record of the status (including Amendments) of each Transaction as it progresses through the OBOS. This includes the date, time, reason, and status each time there is a change in the status of a Transaction. Following is a preliminary list of suggested Transaction statuses that shall be finalized during the Design and Implementation Phase. <p><b>Transactions Statuses</b></p> <p><b>Include Date/Time with all statuses</b></p> <ul style="list-style-type: none"> <li>• ETC Transaction</li> <li>• IBT Transaction</li> <li>• Complete IBT (set following receipt of plate number)</li> <li>• Plate Number Received from RTCS</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>• Image Received from RTCS</li> <li>• Transaction Uncollectable</li> <li>• Sent to CCSS</li> <li>• CCSS Response Amendments (see Appendix C1 – CCSS-Away Agency ICD v6.19)</li> <li>• Sent to Collections</li> <li>• Collections Response Amendments (see Appendix D – THEA Collections/OBOS ICD)</li> <li>• Registration Stop</li> <li>• Registration Release</li> <li>• Corrected Plate</li> <li>• Changed from ETC to IBT</li> <li>• Recalled from CCSS</li> <li>• Recalled from Collections</li> <li>• Open/Closed (to facilitate reports)</li> <li>• Closed Reason (CCSS, Collections, DMV OBOS (Auto, Manual, Timeout))</li> </ul> <p><b>Note: When a Transaction status is updated, the new status does not replace an existing status, it is appended to the list of statuses.</b></p>
326	The Contractor and the Authority shall finalize the current list of Amendments and statuses during the Design and Implementation Phase.
327	The OBOS shall be capable of receiving, processing, and storing any new Amendments that may be developed.
328	All Transactions, images, and messages transferred between the OBOS and its subsystems, all applications and internal and external interfaces shall have data validation controls to confirm the complete, accurate, and timely transfer and receipt of data.
329	The OBOS shall include the functionality, via an automated process using an outbound revenue-based Amendments to CCSS, for a rejected ETC Transaction to be changed to an IBT Transaction. The process shall include the request for the license plate Image from the RTCS. The OBOS shall allow for this functionality to be turned on and off globally, as needed.
330	The Software shall accurately track and update Transaction statuses in real time. The approach must ensure timely and accurate updates to Transaction statuses, ensuring that changes to and from CCSS and Collections are immediately available for reports and research.

### 5.1.1 Transaction Controls

Ideally, transactions require no human intervention or interaction and flow automatically from the RTCS to the OBOS and to the external entities as shown in Appendix A1 – OBOS Transaction Lifecycle Flow and described in Appendix A2 – OBOS Transaction Lifecycle: A to Z.

Req. #	Requirement
331	The OBOS shall provide automatic functions and interactive (manual) screens to support audit and adjustment functionality to Transactions, including but not limited to: <ul style="list-style-type: none"> <li>• Fare Adjust</li> <li>• Convert ETC to IBT</li> <li>• Transaction Recall</li> </ul>

Req. #	Requirement
332	Manual Fare Adjust - The OBOS shall provide the User with the ability to manually adjust the fare, either directly or using a designated fare table, of any selected transaction or group of transactions. For this function, the OBOS shall utilize the CCSS FARE ADJ outbound amendment in accordance with the rules associated with that amendment.
333	Manual Convert ETC to IBT - The OBOS shall provide the User with the ability to convert a rejected ETC transaction to an IBT transaction. The following sub-requirements apply: <ul style="list-style-type: none"> <li>The ETC to IBT function shall utilize the CCSS "ETC to VIOLATOR MOP" outbound amendment to resend rejected ETC transactions back to the CCSS as image-based transactions.</li> <li>The User may select a range or single transaction ETC to IBT eligible transactions and convert them or change their status to ineligible.</li> </ul>
334	<ul style="list-style-type: none"> <li>Manual Transaction Recall - The OBOS shall provide the User with the ability to recall any selected transaction or group of transactions from the CCSS or Collections.</li> </ul>
335	The OBOS shall automatically determine the current location of the transaction (CCSS or Collections) and apply the recall accordingly.
336	The OBOS shall use the daily CCSS Recall File to recall transactions from the CCSS. The CCSS Recall File is defined in Appendix C6.
337	The OBOS shall use the Collections Recall API message to recall transactions from Collections.

### 5.1.2 Collections

The Authority contracts with a third-party collection agency for the recovery of outstanding debt.

Req. #	Requirement
338	The OBOS shall include configurable logic related to when a Transaction is sent from the OBOS to Collections. This configurable criterion includes, but is not limited to the following: <ul style="list-style-type: none"> <li>Amount owed (toll, fee, toll and fee)</li> <li>License plate, state and plate type</li> <li>Number of previous invoices issued to the customer per CCSS Amendment</li> <li>Transaction date</li> <li>CCSS Amendment type/reason</li> </ul>

### 5.1.3 Discount Program

The OBOS will be required to support the Authority’s MacDill Discount Program, outlined in Appendix F, as well as future discount programs. Requirements related to the Authority discount program include the following.

Req. #	Requirement
339	The OBOS shall implement the MacDill discount program as defined in Appendix F.
340	The OBOS shall provide the capability to process a CSV file, or other interface/mechanism that would enable uploading and processing of a future list via file containing the eligible participants of the Discount Plan. Format and interface to be determined during the Design Phase of the Project.

Req. #	Requirement
341	The OBOS shall include a function to send emails to Discount Plan customers informing them of applied discounts.
342	The OBOS shall be designed to support the capability for future discounts and special programs that are based on parameters such as the number of trips in a month, travel location, zip codes, specific dates, specific eligibility (e.g., military background), time of day, for specific dates, or other Authority parameters.
343	The OBOS shall be designed to support the capability for future discount and special programs with the following functionality: tracking of usage for usage-specific plans, periodic re-validation of qualifications, calculation of customer discount amount, new APIs, new workflow logic and reporting.
344	The OBOS shall have the capability to calculate the discounts based on different Business Rules including the minimum number of trips by location, based on Transaction Date and/or Posting Date.
345	The Discount Program shall utilize the "CCSS FARE ADJ" outbound amendment, and/or other Amendment(s) as identified during the design of the program, in accordance with the rules associated with that Amendment.

## 5.2 Configuration

Req. #	Requirement
346	The Contractor shall prepare and maintain a Configuration Table that shows the current and historical values of table-driven variables in the OBOS. This includes a history of effective start and end dates of all configurable OBOS values.
347	The Contractor shall submit a configuration table to the Authority for review and Approval no later than thirty (30) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test.
348	The Contractor shall update any configurable System values within two (2) Business Days of a request by the Authority.
349	The Contractor shall provide an updated configuration table to the Authority for review and Approval within five (5) Business Days before any proposed changes to the configuration table.

## 5.3 Graphical User Interface and User Input Screens

Req. #	Requirement
350	The OBOS shall be furnished with a Graphical User interface (GUI) for all User interactions.
351	The OBOS GUI shall be capable of handling large data sets such as Transaction searches and shall provide flexible User pagination.
352	The OBOS GUI shall be User friendly, intuitive, easily navigable, and configurable.
353	The Contractor shall work with the Authority during the Design and Implementation Phase to complete the list of GUI functions. A preliminary list of functions that must be included is outlined below: <ul style="list-style-type: none"> <li>• Access Management <ul style="list-style-type: none"> <li>○ VPN Management</li> <li>○ Groups and Rights</li> <li>○ Password Management</li> <li>○ Users <ul style="list-style-type: none"> <li>○ Add/Remove Users</li> </ul> </li> </ul> </li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>- Lock/Unlock Accounts</li> <li>- Modify a User’s Email Address</li> <li>- Manage User Access/Privilege</li> <li>- Reset a User Password</li> <li>• System Management               <ul style="list-style-type: none"> <li>○ System Configuration                   <ul style="list-style-type: none"> <li>- Variance checks/Exception reporting</li> <li>- Collections criteria</li> <li>- Tax Collector criteria</li> <li>- Tag ID/Agency Chart</li> <li>- Fare Table</li> </ul> </li> <li>○ User Configuration                   <ul style="list-style-type: none"> <li>- Report criteria</li> <li>- Dashboards</li> <li>- Default menu</li> </ul> </li> </ul> </li> <li>• Transaction Control               <ul style="list-style-type: none"> <li>○ Fare Adjust</li> <li>○ Convert ETC to IBT</li> <li>○ Transaction Recall</li> </ul> </li> <li>• Fare Table Management (as outlined in Appendix B – RTCS/OBOS ICD Overview v4.0)               <ul style="list-style-type: none"> <li>○ The UI shall have the ability to load, view, submit and approve the toll fare entries (toll fare table) for different vehicle types based on an effective start and end date combination.</li> </ul> </li> <li>• Maintenance Management               <ul style="list-style-type: none"> <li>○ Alarms/Warnings</li> <li>○ Open Items</li> <li>○ System Logs</li> </ul> </li> </ul>
354	The OBOS GUI shall be browser based supporting the current and future versions of Microsoft Edge, Google Chrome, Apple Safari, and Firefox. The GUI shall also be backward compatible to support browser versions that are still supported by the manufacturer.
355	The OBOS GUI shall make full use of the GUI components provided by a browser such as drop-down lists, check boxes, buttons, hot keys, etc. to minimize the number of keystrokes required to interact with the OBOS.
356	The OBOS shall allow Users to open multiple GUI/web browser windows simultaneously (e.g., a User shall be able to view real time Dashboard data in one GUI window/instance while simultaneously examining Transaction level data or associated reports in another GUI window/instance).
357	The OBOS GUI shall have full on-line help screens that are formatted for both viewing and printing.
358	The OBOS GUI help screens shall be context sensitive such that when a help screen is requested, it shall present help for the currently viewed application screen.
359	The OBOS GUI shall utilize Hover-text for all selectable parameters.
360	The OBOS GUI shall incorporate seamless access to Business Intelligence Software such as Power BI, Jaspersoft or Tableau.



Req. #	Requirement
361	The OBOS GUI shall allow each User to configure their own default views, Dashboards, and reports within their access rights. This configuration shall persist until changed by the User.
362	The web-based application shall support HTTPS (Hypertext Transfer Protocol Secure) protocol for secure communication between clients and the application server.
363	SSL/TLS (Transport Layer Security) encryption shall be used to encrypt data transmitted over the network, including login credentials, personal information, and sensitive transaction data.
364	SSL certificates shall be obtained from a trusted Certificate Authority (CA) and configured on the application server to establish secure connections with clients.
365	The application server shall enforce the use of SSL encryption for all web traffic, redirecting HTTP requests to HTTPS to ensure secure communication by default.
366	SSL encryption settings, including cipher suites, key exchange algorithms, and protocol versions, shall adhere to guidelines provided by the National Institute of Standards and Technology (NIST) Special Publication 800-52 or equivalent, to mitigate vulnerabilities and ensure robust encryption.
367	The OBOS GUI shall be capable of capturing, storing, and displaying all relevant data efficiently and accurately in accordance with industry best practices and the Requirements.
368	The OBOS GUI shall provide a robust search and research function allowing authorized Users to obtain and view Transaction information based on searches of various attributes and search criteria such as license plate number and transaction date.
369	The OBOS GUI shall allow Users to filter and sort data displayed on the screen, such as date and time range, transponder number, toll agency where the Transaction occurred, and other attributes that appear on the screen.

#### 5.4 Reporting, Dashboards and Business Intelligence

System Reports, Dashboards and Business Intelligence Tools are critical elements of the Operational Back Office System. As the Authority’s System of Record for Toll Transactions, Reports, Dashboards and Business Intelligence Tools provide the insights and analytics into all aspects of the OBOS condition, Maintenance and operations, toll transaction status, revenue collection and reconciliation, special programs, and operations. Refer to Appendix I – Reports and Dashboards for a list and brief description of reports, currently used and/or desired by the Authority in the OBOS. Appendix I – Reports and Dashboards is not intended to be a complete list of all required reports but rather to provide the Contractor with a sample of the types of reports that the Contractor will be expected to provide.

Req. #	Requirement
370	The OBOS shall offer robust reports and Dashboards that offer a comprehensive selection criterion allowing Users to generate desired output without the need for special database analysis skills.
371	During the Design and Implementation Phase, the Contractor shall schedule, manage, facilitate, and conduct report and Dashboard workshops with the Authority. The specific reports/Dashboards, formats, data, and selection criteria will be finalized during these workshops. The workshops shall also cover the use of Business Intelligence Tools and include the development of standard Business Intelligence reports and graphics. The workshops shall be a well-planned collaborative activity with the result being the design of standard reports and Dashboards and the GUIs for the generation of ad-hoc reports and Dashboards.

Req. #	Requirement
371.1	<ul style="list-style-type: none"> <li>The GUI associated with report or Dashboard generation shall be intuitive and User friendly.</li> </ul>
371.2	<ul style="list-style-type: none"> <li>The workshops shall include the development and design of the GUIs used for the generation of ad-hoc reports, queries, and Dashboards.</li> </ul>
371.3	<ul style="list-style-type: none"> <li>The Contractor shall clearly identify any limitations associated with the generation of ad-hoc reports and Dashboards, including but not limited to the fields that can be used in the data selection for the generation of reports and Dashboards.</li> </ul>
371.4	<ul style="list-style-type: none"> <li>The Contractor shall employ an effective and productive methodology for Designing and finalizing the reports and Dashboards identified in the Scope of Work through the workshops.</li> </ul>
371.5	<ul style="list-style-type: none"> <li>The reports and Dashboards and GUI Design process shall be iterative, and the Contractor shall conduct multiple workshops with the Authority's stakeholders, and the Contractor shall bring subject matter experts to the meeting.</li> </ul>
371.6	<ul style="list-style-type: none"> <li>The Contractor's subject matter experts shall explain each report, Dashboard and GUI, its intended purpose, columns, fields and components and its connection with other reconciling and validating reports and Dashboards.</li> </ul>
371.7	<ul style="list-style-type: none"> <li>The Contractor's report, Dashboard and GUI templates shall be submitted and changes to meet the Authority OBOS Requirements and needs shall be noted. The reports and Dashboards shall have correct and accurate data and shall reconcile across other reports and Dashboards.</li> </ul>
371.8	<ul style="list-style-type: none"> <li>Upon receiving feedback from the Authority and Authority stakeholders, the Contractor shall modify the report, Dashboard and GUI templates and the reports and Dashboards identified in the scope of work and shall resubmit the updates for review by the Authority and Authority stakeholders.</li> </ul>
371.9	<ul style="list-style-type: none"> <li>The modified and new reports, Dashboards and GUI shall be demonstrated to the Authority using accurate and reconciled data. Reports and Dashboards that are expected to reconcile to one another shall be demonstrated together.</li> </ul>
371.10	<ul style="list-style-type: none"> <li>The iterative series of workshops and demonstrations shall continue until reports and Dashboards specified in the scope of work and the reports, Dashboards and GUIs templates are Approved by the Authority.</li> </ul>
371.11	<ul style="list-style-type: none"> <li>At the conclusion of the workshops, the Contractor shall document the results of the meetings and incorporate the reports, Dashboards, GUI, and Design decisions into the SDD.</li> </ul>
372	The OBOS shall allow Users to perform ad-hoc queries and reporting.
373	The OBOS shall restrict access to data selection criteria based on User credentials.
374	The OBOS shall have controls in place that ensure report and Dashboard data tie and reconcile as required, such that data requests for the same information agree to one another and that roll-ups of lower-level detail sum correctly.
375	The OBOS shall allow Users to browse selected User screens and apply selection criteria from pull-down menus, calendar controls and text entry as appropriate and generate reports and Dashboards on demand through a clearly displayed, intuitive, and User-friendly GUI.
376	Format for similar fields shall be consistent across GUI screens.
377	The OBOS shall allow authorized Users to save selection criteria as a template.
378	The OBOS shall properly format numerical data with decimals and commas, as appropriate.

Req. #	Requirement
379	The OBOS shall provide drill down capabilities for both reports and Dashboards, allowing authorized Users to directly select information from the data returned on the User’s screen via a link or drill down and be brought to additional detail, as defined during the Design and Implementation Phase
380	The OBOS shall provide User-selectable timeframes as parameters for reports and dashboards. The timeframes shall include hourly, daily, weekly, monthly, quarterly, calendar year, Fiscal Year, prior day, User-defined date and time range. Date-time format shall be proposed by the Contractor and Approved by the Authority.
381	For reports and Dashboards that include IBTs, the transaction view shall include a link to view the license plate image. For reports and Dashboards that include either IBT or ETC Transactions, the transaction view shall include a link to view the DVAS video.
382	The OBOS shall allow for wildcard searches and support logical operators (e.g. - AND, OR, NOT).
383	Where appropriate, reports, screens and Dashboards shall indicate the name of the Transponder issuing agency which can be found in Appendix E1 – NIOP ICD Appendix-B-Released-20220916 and/or Appendix E2 – NIOP ICD Appendix C - Released 20240223.

**5.4.1 Business Intelligence**

Req. #	Requirement
384	The Contractor’s OBOS solution shall include Business Intelligence Software such as Power BI or Tableau. This Software shall aid Users in Transaction monitoring, research, and reporting to identify trends and gain further insights into OBOS data. The Business Intelligence functionality shall include, but not be limited to the following:
384.1	Allow Users to examine and analyze data to identify and understand trends, patterns and issues
384.2	<ul style="list-style-type: none"> <li>Share data, reports and visualizations from the Business Intelligence tool with other Users</li> </ul>
384.3	<ul style="list-style-type: none"> <li>Provide data in an accessible and understandable manner</li> </ul>
384.4	<ul style="list-style-type: none"> <li>Retrieve, analyze, report and present data in User-friendly, informative views such as reports, charts and graphs.</li> </ul>
384.5	<ul style="list-style-type: none"> <li>Provide graphical representations of data</li> </ul>
384.6	<ul style="list-style-type: none"> <li>Provide data analytics</li> </ul>
384.7	<ul style="list-style-type: none"> <li>Allow single-screen views of metrics divided into panels to show related data points</li> </ul>
384.8	<ul style="list-style-type: none"> <li>Utilize both current and historical OBOS data</li> </ul>
384.9	<ul style="list-style-type: none"> <li>Utilize data that is external from OBOS and imported into OBOS to complete comparative analytics, reporting, and generation of Business Intelligence</li> </ul>
384.10	<ul style="list-style-type: none"> <li>Enable side-by-side comparisons of data under different scenarios</li> </ul>
384.11	<ul style="list-style-type: none"> <li>Provide drill-down and drill-up features</li> </ul>
384.12	<ul style="list-style-type: none"> <li>Provide data querying</li> </ul>
384.13	<ul style="list-style-type: none"> <li>Perform predictive analytics</li> </ul>

### 5.4.2 Reports

Req. #	Requirement
385	During the reports, Dashboards and Business Intelligence tools workshops, the Contractor shall design and develop all reports identified in Appendix I – Reports and Dashboards, as well as other reports as requested by the Authority during the Design Phase of the Project. Comparable Dashboards to all of the reports in Appendix I – Reports and Dashboards shall also be developed during the workshops. Up to an additional 30 reports or Dashboards shall be developed by the Contractor as identified by the Authority during the workshops or at any point of time in the Contract.
386	The OBOS shall allow authorized Users to configure reports to be automatically saved and generated on a scheduled or recurring basis for a given selection criteria and the output, in a User selectable format, shall be sent via e-mail to a User-defined distribution list or User-specific repository.
387	The OBOS shall include functionality to allow Users to immediately terminate report and query generation which is in process.
388	The OBOS shall provide the User with a screen display of any report generated and shall also allow the following output options: <ul style="list-style-type: none"> <li>• Export to industry standard formats including MS Excel, CSV, PDF, and HTML</li> <li>• Send to Printer</li> <li>• Send via Email</li> <li>• Be saved by the User locally and/or on a User-specific repository (the Authority shared drive)</li> </ul>
389	The OBOS shall format exported reports for their destination format and the output shall not require the User to manipulate the format to perform analysis. For example, reports exported to Excel or CSV should not have their header information repeated on multiple pages, all report columns should be in-line, and merged cells (Excel) should be kept to a minimum.
390	The OBOS shall identify table headers (i.e., top row of an excel table) with these headers being printed on the top of the table.
391	The OBOS shall include a standard report header and/or footer on all reports containing: <ul style="list-style-type: none"> <li>• The ID of the User executing the report</li> <li>• The date/time the report was executed</li> <li>• The name of the report</li> <li>• The page number in the format of “Page X of Y”</li> <li>• The selection criteria used to generate the report</li> </ul>
392	Configurable default start and end dates for reporting periods (for example, when running a monthly report, the OBOS shall automatically populate the start date and end date of the previous month). Users may override these dates for individual reports.
393	The OBOS shall notify Users if a required report or query will produce results that are more than a configurable size and/or will take longer than a configurable amount of time and shall require confirmation from the User to generate the report or query.
394	The System shall provide the ability for Users to generate, save and schedule ad-hoc reports based on the User’s selection of criteria.
395	The Contractor shall be responsible for making minor changes to reports (e.g., formatting, adding or deleting totals and subtotals, etc.) throughout the Contract Term at no additional cost.

Req. #	Requirement
396	The Contractor shall be responsible for assuring the accuracy and completeness of all OBOS reports throughout the Contract Term.

### 5.4.3 Dashboard

Dashboards provide a visual overview of data trends to aid Users in quickly identifying areas that require attention.

Req. #	Requirement
397	The OBOS shall be furnished with browser-based GUI Dashboards that provide Users with a visual overview via real time or near-real time indicators or panels. These indicators shall provide information related to the health of the OBOS and various processing and operational statistics, including but not limited to System performance health, KPI's, toll transaction statistics and internal/external interfaces and provide real time status and recent historical information in graphical formats
398	The OBOS Dashboards shall provide information with a dynamic graphical display of key operational workflows, statuses, and other key operations components to be determined during the Design and Implementation Phase.
399	The OBOS's Dashboard shall visually present real time OBOS status, OBOS and operations workflows, and performance information and shall dynamically highlight issues or backlogs as they occur, allowing Users and the Authority management to instantly identify items in need of corrective actions.
400	The OBOS's Dashboard shall maintain historical benchmarks for comparison to current performance and/or operations workflows, and timeframes and shall provide a notification when actual real time conditions deviate from the benchmarks. Parameters for Historical benchmarks include but are not limited to the time period such as prior ninety (90) day average, day of week, same day prior week/prior year. Historical benchmarks will be defined during the reporting workshops.
401	The OBOS Dashboard shall include an overview of OBOS processing including the status of Transactions (current and historical).
402	The OBOS Dashboard shall provide drill-down capabilities to provide the details of the displayed parameter.
403	The Contractor shall provide Dashboard indicators, each with User selected data and presentation mode. User settings shall be saved between sessions. The Dashboard window shall be appropriately sized based on the number of indicators selected. Dashboard indicators shall be defined and developed during the Design and Implementation Phase.
404	The OBOS shall allow Users to establish configurable indicator thresholds for monitoring System and operational performance.
405	The OBOS's Dashboard shall display Alerts in a clear and conspicuous manner. Specific required Alerts will be defined during the reporting workshops.
406	Dashboards shall allow Users to export data to the following file types: Comma-separated text, flat file .txt, CSV, PDF, Excel spreadsheet and Image file (e.g., jpeg, png, bmp, etc.).
407	Dashboards shall render within three seconds of opening the Dashboards screen or signing into the System.

## 5.5 Manuals

### 5.5.1 User Manual

Req. #	Requirement
408	The Contractor shall develop and provide to the Authority for review and Approval a comprehensive User Manual to support all functions, features, and tools of the OBOS. The OBOS User Manual shall be provided to the Authority for review and Approval no later than sixty (60) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test.
409	The User Manual shall address all User types and groups such as supervisors and managers, the Authority program administrators, auditors, and accounting/financial staff, etc.
410	The User Manual shall be intuitive, easy-to-follow, and contain detailed instructions for the use and operation of the OBOS and all OBOS functions. It shall include navigation flows, flow diagrams and application screenshots.
411	The User Manual shall include an explicit section on reports (including ad hoc reporting), Dashboards and Business Intelligence. This section shall include a list of all reports and Dashboards, descriptions, tutorials, selection criteria, definitions, and the method of saving and accessing reports.
412	The Contractor shall keep the User Manual current and shall provide updated versions of the User Manual to the Authority for Approval no later than thirty (30) Calendar Days from any material change, or as requested by the Authority.

### 5.5.2 System Administration Manual

Req. #	Requirement
413	The Contractor shall develop and provide to the Authority for review and Approval a comprehensive System Administration Manual which shall address the tasks and responsibilities for maintaining and monitoring the OBOS so that it continuously operates and performs in accordance with the Requirements. The System Administration Manual shall be submitted to the Authority for review and Approval no later than thirty (30) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test.
414	The System Administration Manual shall include all steps and procedures necessary to ensure proper and secure administration of the OBOS.
415	The System Administration Manual shall include all items required for proper Maintenance of the OBOS and include such things as Maintenance, Maintenance schedules, procedures for the application of patches and Software Updates, detailed instructions on emergency responses and how to orderly shutdown and restart the OBOS and specific applications, back up procedures, and actions to be taken when a service does not stop or start.
416	The System Administration Manual shall provide detailed processes and procedures for monitoring, maintaining, and renewing all licenses to ensure uninterrupted OBOS usage, avoiding any disruptions due to expired licenses.
417	The System Administration Manual shall include a complete System Configuration Table and all related policies.
418	The Contractor shall keep the System Administration Manual current and shall provide updated versions of the System Administration Manual to the Authority for Approval no later than thirty (30) Calendar Days of any material change, or as requested by the Authority.



## 6 Transition, Data Migration and Testing

### 6.1 Data Migration and Verification

Data Migration is the process of duplicating all necessary data from the TOBS into the OBOS. In support of the migration, an interim database consisting of all TOBS Transaction data will be made available to the Contractor. The Contractor shall be responsible for the complete and accurate migration of data from the interim database to OBOS. The details of the interim database and its use is described in Appendix M.

Req. #	Requirement
419	Data migration consists of copying Transactional data and any necessary associated data from the interim database to the OBOS prior to OBOS going live. For each Transaction, this shall include: <ul style="list-style-type: none"> <li>• UFM data</li> <li>• Additional RTCS Information (e.g., vehicle characteristics)</li> <li>• License plate images (if applicable)</li> <li>• CCSS Amendments</li> <li>• Data exchanged with Collections (if applicable)</li> <li>• Registration Stop and Release data (if applicable)</li> </ul>
420	The Contractor shall provide a Data Migration Plan that describes the complete transition/data migration approach and process in accordance with the Approved, Baseline Project Schedule. The Data Migration Plan shall be submitted to the Authority for review and Approval no later than one hundred and twenty (120) days from NTP. The Data Migration Plan shall include: <ul style="list-style-type: none"> <li>• Data migration approach and process</li> <li>• An appropriate roll-back scenario</li> <li>• Data conversions (as necessary) and mapping of fields migrated from the interim database to OBOS.</li> <li>• A data validation and verification process</li> <li>• Validation that the OBOS can process and report on migrated data consistent with new OBOS data</li> </ul>
421	The Contractor shall work with THEA in the development of a roll-back scenario.
422	Given the significant amount of data to be transferred from the interim database to the OBOS, the Contractor shall develop the database tables and fields required to accept the data and start the migration process no later than six (6) months after NTP.
423	The Contractor shall be responsible for all activities and staffing related to the seamless migration of data from the interim database to the OBOS.
424	The Contractor shall accurately migrate data into the OBOS, validate the migration, and ensure that the OBOS will properly process/access the legacy Transaction data.
425	The Contractor shall ensure no data is lost during data migration and shall provide the results from data migration verification to the Authority for review and Approval.
426	The Contractor shall coordinate with the Authority and the legacy TOBS vendor, as required.
427	To ensure the migration process is properly designed, the Contractor shall identify a representative sample of test Transactions that span a period of time that represent changes in the status of the Transaction, for the Authority’s verification and Approval, that were entered into TOBS from the roadside system. The sample set shall represent as many



Req. #	Requirement
	processing variations as reasonable. The sample set of Transactions shall be migrated by the Contractor and verified by the Authority prior to the start of a full migration
428	Upon the Authority’s Approval, the Contractor shall clear all test Transactions and proceed to migrate all Transactional data from the interim database. All Transactional data from the current Fiscal year plus the previous five (5) Fiscal years shall be migrated.
429	The Contractor shall halt the migration process after each year of migration for verification by the Contractor.
430	The Contractor shall be responsible for the fidelity of the data in OBOS and shall rollback previous migration efforts and restart the migration process from the beginning if errors are found, based on the discretion of the Authority.
431	The Contractor shall provide a report detailing the results from the data migration to the Authority for review and Approval. The report shall include a visual representation of Transactions in both databases as well as a comparison of Transaction data between the two systems using summary queries that access Transaction details.

## 6.2 Transition/Go-Live

Transition is the process of transferring the operation, System, and all necessary data from TOBS to the OBOS for a seamless transition to the OBOS as the production System.

Req. #	Requirement
432	The Contractor shall provide a Transition Plan that describes the complete transition approach and process in accordance with the Approved, Baseline Project Schedule. This Plan shall include checkpoints and a roll-back scenario that has been coordinated with the legacy TOBS contractor. The Transition Plan shall be provided along with the SDD and shall be finalized to achieve Authority Approval no later than one hundred and twenty (120) Calendar Days prior to schedule Go-Live.
433	The Contractor shall be responsible for all activities and staffing related to the seamless transition of operations from the TOBS to the OBOS.
434	The Contractor shall coordinate with the Authority and the legacy TOBS vendor as well as the legacy roadside vendor, as required.
435	The Contractor shall correlate its Transition Approach with the outline provided in Appendix G – OBOS Go-Live Overview.
435.1	The Contractor shall achieve Go-Live when all the following have been completed: <ul style="list-style-type: none"> <li>• All development necessary for the Contractor’s OBOS and the Legacy OBOS has been completed and the OBOS has passed all Testing required prior to the OBOS Go-Live.</li> <li>• Go-Live Test scripts and Test Plans have been completed and Approved by the Authority.</li> <li>• All Documentation required to be completed before OBOS Go-Live has been Approved by the Authority.</li> <li>• The Contractor has completed and received the Authority’s approval of all Deliverables, Formal Test and milestones required prior to Go-Live.</li> <li>• All required training Documentation has been completed and Approved by the Authority, and the Authority staff have been trained on the new OBOS.</li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>• The OBOS, and all associated System/subsystems, are complete and operational, and the OBOS is accessible by all Users as identified by the Authority.</li> <li>• The Authority has Approved the OBOS Transition Plan.</li> <li>• All Transactional data up to the point of the Go-Live date has been migrated from the TOBS to the Primary OBOS Production Database.</li> <li>• The Authority’s Approval of Contractor Documentation certifying complete and accurate data migration</li> <li>• The Authority has provided the Contractor Approval to initiate the Transition Plan and Go-Live with the new OBOS.</li> <li>• The Contractor, in coordination with the Authority, has coordinated with and informed all external, interfacing entities ahead of the Go-Live date to ensure they are ready for the Authority’s transition to the new OBOS.</li> <li>• The Contractor has successful cut-over in accordance with the Authority Approved Transition/Data Migration Plan</li> </ul>
436	<p>The Authority anticipates that the OBOS will be operational prior to the installation of a new RTCS; however, the Contractor shall plan for and support transition in the event that the new RTCS lanes are installed before Go-Live of the OBOS. In this scenario, the RTCS lanes will have been transmitting Transactional data to TOBS. This data will be included in the TOBS migration data. The OBOS Contractor will need to have completed the RTCS-OBOS interface testing, in addition to all other prerequisite Requirements for Go-Live.</p>

### 6.3 Testing

Compliance with OBOS Requirements will be verified through design reviews and a well-defined testing regimen consisting of Formal Tests and informal demonstrations. Formal Tests are supported by detailed test plans comprised of scripts, procedures, inputs, and expected results. Formal Test plans in conjunction with an updated RTM shall identify which of the System Requirements are to be verified with each Formal Test. Informal demonstrations are meant to ensure that the OBOS functions being developed are consistent with the Authority's expectations. Unlike Formal Tests, there is no required Test Plan or pass/fail associated with informal demonstrations.

#### 6.3.1 Master Test Plan

The Master Test Plan describes all tests to be performed to provide the Authority with assurance that the OBOS is operating as required.

Req. #	Requirement
437	<p>The Contractor shall provide for the Authority’s review and Approval of a Master Test Plan describing in detail the key features of the testing program. The Master Test Plan shall be submitted to the Authority for review and Approval no later than ninety (90) Calendar Days from NTP.</p>
438	<p>The Master Test Plan shall address, the following for each individual Formal Test:</p> <ul style="list-style-type: none"> <li>• Testing approach</li> <li>• Test schedule</li> <li>• Duration of test</li> <li>• Collection of data to be tested</li> </ul>

	<ul style="list-style-type: none"> <li>• The range of scenarios to be tested</li> <li>• Test tools</li> <li>• Test responsibilities</li> <li>• System configuration for test</li> <li>• Collection of the results of test data Environments</li> <li>• Sampling methods</li> <li>• Required conditions</li> <li>• Testing locations</li> <li>• Test results reporting detail</li> <li>• Test punch list defects severity and Priority level descriptions</li> <li>• Details on how punch list defects will be triaged, tracked, resolved and retested</li> <li>• Tools used to document defects</li> <li>• Procedures for tracking and documenting and retesting failed test steps, including regression testing</li> <li>• Regression testing procedures that will be followed each time a Software change is made after SAT Approval</li> <li>• Any dependencies including reliance on and readiness of third parties</li> <li>• The criteria for test entry and exit</li> <li>• Definitions of a successful test</li> <li>• User access and permissions</li> <li>• Definition of the range of variables that shall be part of each Formal Test to ensure full exercising of transaction processing activities, transaction types, interface messages, User interactions and error conditions.</li> </ul>
439	The tests defined in the Master Test Plan shall encompass the exercising of all functions and processes including lifecycle Transaction processing, reports, User interfaces, etc.
440	The Master Test Plan shall include the Requirements Traceability Matrix and indicate in which test the requirement will be validated.

### 6.3.2 General Testing Requirements

Req. #	Requirement
441	The Contractor is responsible for planning, documenting, and conducting a comprehensive test program that demonstrates the OBOS meets all the Requirements of the Scope of Work.
442	The Contractor shall be responsible for all aspects of testing including conducting the tests, collecting the data, analyzing the data, and for all personnel, materials, facilities, and expenses associated with the testing program.
443	The Contractor shall be responsible for the completion of all required internal testing (e.g. unit testing, regression testing, dry run testing, etc.), and development of testing and defect tracking reports to be submitted regularly (e.g. weekly or bi-weekly) ahead of Formal Tests for the Authority's review. The Contractor shall coordinate with the Authority on the development of a Submittal schedule prior to each Formal Test, and the Contractor shall begin regular submissions to the Authority at least one (1) month prior to the execution of each Formal Test.
444	The Contractor shall conduct a dry run of all test procedures for each Formal Test, record the results and submit them to the Authority for review at least five (5) Business Days prior to each Formal Test.

Req. #	Requirement
445	The Contractor shall allow for the Authority’s participation and witnessing of all testing.
446	The Contractor shall be responsible for coordinating with third parties, including but not limited to owners/operators of external systems (RTCS, TOBS, CCSS, Collections and FLHSMV) for data setup, dates and times of testing, and testing prep logistics.
447	For each Formal test, the Contractor shall develop test plans, cases and procedures/scripts that emulate various conditions and scenarios that could occur in the operation of the System to verify the OBOS functionality and its ability to handle such conditions and scenarios. Negative testing scenarios shall also be conducted.
448	The Contractor shall submit the individual test plans and associated test scripts for each Formal Test to the Authority for review and approval no later than sixty (60) Calendar Days prior to scheduled testing for the related test.
449	The test scripts shall contain a step-by-step logical testing process with the purpose of demonstrating a pass-fail acceptance for the item being tested. All testing shall follow the Authority Approved test scripts.
450	The Contractor shall coordinate with the Authority to set a Priority level for each issue and punch list item identified during each test. The Contractor shall be responsible for correcting and retesting high-priority items for the Authority’s approval before an individual test can be completed and Approved.
451	The Contractor shall coordinate with the Authority to develop a retesting schedule for lower priority items. If Approved by the Authority, items of lower priority may be retested or rolled into a future test phase.
452	<p>During Formal Tests, the Contractor shall submit daily progress reports that contain the following:</p> <ul style="list-style-type: none"> <li>• Total test cases executed.</li> <li>• Total test cases closed (% complete)</li> <li>• Total defects opened.</li> <li>• Total defects closed.</li> <li>• Remaining open defects by priority.</li> </ul>
453	At the completion of each test, the Contractor shall submit to the Authority for review and Approval within two weeks of test completion, a comprehensive report detailing the results of all tests and any corrective actions required with specific timeframes for completion.
453.1	<p>At a minimum, comprehensive test reports shall describe and include the following:</p> <ul style="list-style-type: none"> <li>• Test phase (e.g., FAT, UAT, EIT, etc.)</li> <li>• Description of the testing process</li> <li>• Results of the test, including results of each script (e.g. documenting expected vs actual result)</li> <li>• Attach a copy of the completed test script forms (e.g. actual test results from the Contractor documenting results of testing)</li> <li>• Screens and/or reports to document the success or failure of tests/test scripts.</li> <li>• Modifications made to test scripts during the test</li> <li>• List of items that need to be completed to formally pass the test</li> <li>• Listing of all defects/issues identified together with the severity level of each defect.</li> <li>• Plan and schedule for resolving defects.</li> <li>• Recommendation for addressing issues discovered during testing and for retests (if appropriate)</li> </ul>

Req. #	Requirement
	<b>Note:</b> Final Requirements for comprehensive test reports shall be finalized during the Design Phase of Project prior to approval of the Master Test Plan.
454	The Authority shall have the right to stop or suspend any test for any performance issues, at the Authority's discretion, and the decision to resume or restart the test shall reside solely with the Authority.
455	With each Formal Test Plan, the Contractor shall submit an updated Requirements Traceability Matrix indicating which Requirements are to be tested with a cross reference to the scripts in which they are tested.
456	The Contractor shall clearly document in the RTM any Requirements that will not be tested and the reason for their exclusion subject to the Authority's review and Approval.
457	The Contractor shall accommodate reasonable ad hoc testing as required by the Authority. Ad hoc tests may be added before or during actual testing.
458	The Contractor shall submit proposed dates of Formal Tests to the Authority for review and Approval. The Contractor shall coordinate with the Authority to schedule tests so that Authority staff, consultants and partners may observe and/or participate in all testing.
459	The Contractor shall collaborate with the Authority to determine a priority level for each item that does not pass testing.
460	The Contractor shall pass all tests in accordance with established pass-fail criteria.
461	The Authority at its own discretion, may choose to allow the Contractor to place specific test items on a punch list and allow the Contractor to receive Approval from the Authority for the Formal Test with the punch-listed test elements being completed within a timeframe identified by the Authority.
462	A Test shall not be considered passed until all exit criteria, as documented within the Master Test Plan, have been met and all testing required in each individual, Formal Test plan, has passed. Exit criteria for each Formal Test shall be documented within and Approved with the Master Test Plan and individual, Formal Test plans. Exit criteria shall include but not limited to: <ul style="list-style-type: none"> <li>• All planned testing has been completed successfully</li> <li>• All retesting is completed successfully except for tests the Authority agrees can be completed at a later phase</li> <li>• All punch list items are fixed and tested, except for those the Authority agrees can be completed at a later phase</li> <li>• The test report has been Approved by the Authority</li> </ul>
463	The Authority, in its sole discretion, shall have the final determination whether the Contractor's System meets the exit criteria of, and passes each, Formal Test.

### 6.3.3 Informal Demonstrations

To ensure that the System is progressing in accordance with the Authority's vision, the Contractor shall demonstrate various functionality to the Authority during the development process. These demonstrations will require a documented agenda but will not require a pass/fail criteria.

Req. #	Requirement
464	The Contractor shall submit a Plan of intended demonstrations for review by the Authority. All demonstrations shall be included in the Approved, Baseline Project Schedule.

Req. #	Requirement
465	The required informational demonstrations will include the following:
465.1	<ul style="list-style-type: none"> <li>UFM creation – Using simulated Transactions, demonstrate the formation of UFM's for a minimum of ten (10) ETC and ten (10) IBT Transactions.</li> </ul>
465.2	<ul style="list-style-type: none"> <li>ETC Transaction – Using the UFM's and the CCSS test system, demonstrate the exchange of data for ten (10) ETC Transactions including storage of the Amendments.</li> </ul>
465.3	<ul style="list-style-type: none"> <li>IBT Transactions – Using the ten UFM's, stock images and the CCSS test system, demonstrate the exchange of data including license plate numbers, storage of the Amendments and retrieval of images by the CCSS.</li> </ul>
465.4	<ul style="list-style-type: none"> <li>Collections Interface – Using data from one of the above Transactions, demonstrate the exchange of data required by the Collections vendor to generate collection notices.</li> </ul>
465.5	<ul style="list-style-type: none"> <li>Dashboard – Using simulated messages, demonstrate the presentation of the real time and historical information such as ETC and IBT, prior day to current day Transactions.</li> </ul>
465.6	<ul style="list-style-type: none"> <li>Reports – Using migrated data demonstrate the creation of:                             <ul style="list-style-type: none"> <li>Traffic and Revenue General Report</li> <li>Traffic and Revenue Analytical Report</li> <li>Transaction Research Report (with drill down)</li> </ul> </li> </ul>
465.7	<ul style="list-style-type: none"> <li>User Access – Demonstrate the creation of two (2) System Users with passwords and various access rights.</li> </ul>
465.8	The Contractor shall document all Authority comments and trace their resolution through the System Design.
465.9	The Contractor shall coordinate the demonstrations with the outside parties, including appropriate account setup such as coordinating with the CCSS to ensure there is an ETC account in the test system that has the characteristics needed for the demonstration.

### 6.3.4 Formal Testing

The Contractor shall conduct the following Formal Tests in the sequence indicated below. These include:

- (1) External Interface Tests (Data Exchange)
- (2) OBOS Factory Acceptance Test (FAT)
- (3) Operational Readiness and User Acceptance Test
- (4) Security and Network Penetration Test
- (5) Disaster Recovery Test
- (6) Go-Live Test
- (7) RTCS Integration Test
- (8) Toll Site Commissioning Tests (ICT)
- (9) System Acceptance Test (SAT)

The OBOS SAT may occur after the RTCS OSIT or after the RTCS ICT depending on the roadside installation schedule. All other tests shall be completed prior to the OBOS SAT.

The test sequence indicated assumes the OBOS will be ready prior to the new RTCS going live. If this is not the case, the testing sequence will need to be adjusted as Approved by the Authority prior to the start of OBOS testing.

### 6.3.4.1 External Interface Tests

The purpose of these tests is to ensure that the OBOS will interface properly with the defined external entities required for Go-Live. These tests are run with the test systems of the external interfaces and are not end-to-end but are intended to ensure correct data transfer and error handling. The External Interface Test with each entity is independent of the test performed with the other entities.

Req. #	Requirement
466	The External Interface Test (EIT) shall verify the correct data exchange and processing for each OBOS interface (TOBS, CCSS, Collections, FLHSMV) using simulated data and the entity's test system.
467	The EIT shall require the Contractor to work iteratively and cooperatively with each of the OBOS interfaces to coordinate testing and ensure that enough test accounts are established to adequately, and independently verify the correct operation of each external interface.
468	THE EIT shall include a representative sample of scenarios including negative test scenarios for each interface type to fully exercise the System. All sample scenarios shall be submitted to the Authority for review and Approval.
469	The EIT shall utilize the external entities' test environment and the Master Test Plan shall include the responsibilities of each party in conducting the test and in the establishment and verification of data. To this end, the EIT Plans shall be shared with the external entities as soon as possible.
470	CCSS Interface – Verify accepted and rejected transmission and data content of the following: <ul style="list-style-type: none"> <li>• UFM messages</li> <li>• Inbound Amendments</li> <li>• Outbound Amendments including fare adjustments</li> <li>• Get Demographics</li> <li>• Get Image</li> <li>• File Transfers including POSI Lists and Transaction Recall</li> </ul>
471	Collections/ FLHSMV Interface – Verify accepted and rejected transmission and data content of the following: <ul style="list-style-type: none"> <li>• Transaction messages</li> <li>• Demographics messages</li> <li>• Get Image</li> <li>• Amendments</li> <li>• Transaction Recall</li> <li>• Reconciliations</li> <li>• Collections Stop/Release requests</li> <li>• DMV Stop/Release requests</li> <li>• DMV Stop/Release acknowledge</li> <li>• Collections Stop/Release acknowledge</li> </ul>



Req. #	Requirement
472	<p>TOBS Interface – Verify accepted and rejected transmission and data content of the following:</p> <ul style="list-style-type: none"> <li>• Transactions</li> <li>• Plate #s</li> <li>• Images</li> <li>• POSI List</li> </ul>
473	<p>Test Duration – The EIT shall be conducted over a period that allows the full exercising and validation of each interface.</p>
474	<p>Exit Criteria – The EIT shall pass testing when all the required testing of the specified interfaces has been successfully completed and all exit criteria, as documented in the Master Test Plan and EIT Test Plan have been met.</p>

#### 6.3.4.2 OBOS Factory Acceptance Test (FAT)

The OBOS FAT will test the interactive functions of the OBOS including the supporting GUI and VPN functionality.

Req. #	Requirement
475	<p>Using migrated and simulated data, the OBOS FAT shall verify the acceptable operation of the following:</p>
475.1	<ul style="list-style-type: none"> <li>• Users <ul style="list-style-type: none"> <li>○ Create Users</li> <li>○ Create Name and Password</li> <li>○ Password reset</li> <li>○ Access and Permissions</li> <li>○ Termination</li> <li>○ E-mail</li> <li>○ Notifications</li> </ul> </li> </ul>
475.2	<ul style="list-style-type: none"> <li>• Dashboards – Verify creation and control of all required Dashboard indicators including but not limited to: <ul style="list-style-type: none"> <li>○ System Health</li> <li>○ Traffic</li> <li>○ Revenue</li> <li>○ Alarms</li> <li>○ Performance</li> </ul> </li> </ul>
475.3	<ul style="list-style-type: none"> <li>• Reports – Verify the creation and correct relationships of all reports specified in Appendix I- Reports and Dashboards: <ul style="list-style-type: none"> <li>○ Lane Data</li> <li>○ Traffic Congestion</li> <li>○ Potential Revenue Loss</li> <li>○ State of CBO transactions</li> <li>○ CBO Amendments</li> <li>○ File Transfer Historical Record</li> <li>○ Collections Status</li> <li>○ Registration Stop Report</li> <li>○ Interface Report</li> </ul> </li> </ul>

Req. #	Requirement
	<ul style="list-style-type: none"> <li>○ Discount Program</li> <li>○ Waterfall</li> <li>○ Expected Revenue</li> <li>○ Maintenance Issues</li> <li>○ System Access</li> <li>○ User Activity</li> </ul>
475.4	<ul style="list-style-type: none"> <li>● Fare Table – Verify the ability to load and activate Fare Tables per Appendix B – RTCS-OBOS ICD Overview v4.0.</li> </ul>
475.5	<ul style="list-style-type: none"> <li>● Commands and Functions – Verify the operation of the following:               <ul style="list-style-type: none"> <li>○ Manual recall transactions from CCSS and Collections</li> <li>○ Manual Fare adjustment at CCSS</li> <li>○ Manual convert of ETC Transaction to IBT Transaction</li> </ul> </li> </ul>
475.6	<ul style="list-style-type: none"> <li>● GUI – Confirm the following with the Design Requirements:               <ul style="list-style-type: none"> <li>○ GUI presentation and colors</li> <li>○ Hover-text feedback</li> <li>○ On-line help</li> <li>○ Dropdown menus</li> <li>○ Browser Support</li> <li>○ User configurable windows and content default screens</li> </ul> </li> </ul>
475.7	<ul style="list-style-type: none"> <li>● Alerts – See Section 7.1.1 - Alerts</li> </ul>
475.8	<ul style="list-style-type: none"> <li>● VPN Access – Verify that only Users with proper VPN software and credentials can access the System.</li> </ul>
475.9	<ul style="list-style-type: none"> <li>● Discount Program – Verify the operation of all functionality related to the Discount Program as specified in Appendix F – MacDill Discount Program, including:               <ul style="list-style-type: none"> <li>○ Add/remove members (including eligibility requirements)</li> <li>○ Adjust member trips and credits</li> <li>○ Activate/deactivate program</li> <li>○ Application of the discount rules to adjust an account balance.</li> <li>○ Financial impact reporting</li> </ul> </li> </ul>
475.10	<ul style="list-style-type: none"> <li>● Test Duration – The OBOS FAT shall be conducted with end-to-end verification of at least fifty (50) transactions, together representing but not limited to the following transaction types:               <ul style="list-style-type: none"> <li>○ Valid Florida ETC</li> <li>○ Valid Florida ITOL</li> <li>○ Florida Invoiced</li> <li>○ Florida Collections</li> <li>○ DMV Stop/Release</li> <li>○ Valid Interoperable Agency ETC</li> <li>○ Valid Interoperable Agency IBT</li> <li>○ Invalid Interoperable Agency ETC</li> <li>○ Invalid Interoperable Agency IBT</li> <li>○ Invalid ETC</li> <li>○ Converted ETC to IBT</li> <li>○ Delayed Transactions due to communications failure</li> </ul> </li> </ul>

Req. #	Requirement
475.11	Exit Criteria – The FAT shall pass testing when all of the required testing of the specified functions have been successfully completed and all exit criteria, as documented in the Master Test Plan and FAT Test Plan have been met.

### 6.3.4.3 Operational Readiness and User Acceptance Test

The Operational Readiness Test (ORT) and User Acceptance Test (UAT) are the most significant test in the Project as the result of a successful test is a fully functional OBOS using the TOBS as a conduit for roadside Transactions (Stage 1). The ORT and UAT will be run using the test systems of the external entities and will utilize actual Transactions from the production TOBS. The ORT and UAT will be run in the Test Environment so as not to connect to the future Production Database to which past Transactions have been migrated. The Test Environment shall be set to contain a copy of the migrated database. The ORT and UAT will accomplish a degree of parallel testing as it will allow the comparison of production TOBS processing to OBOS processing via test interfaces.

Req. #	Requirement
476	ORT and UAT shall commence only after successful completion of the FAT.
477	The ORT and UAT shall prove that the OBOS and the Authority operations are ready for production and Go-Live.
478	The ORT and UAT shall exercise all OBOS functionality and shall be a comprehensive and exhaustive test prior to Go-Live.
479	The ORT and UAT shall be conducted utilizing actual Transactions from the legacy roadside system.
480	The first part of the ORT and UAT shall involve establishing a set number of test accounts that exist in the test CCSS. The Contractor is responsible for coordinating with the CCSS to ensure the CCSS test system has the accounts properly set up. Test account activity shall be defined in the Test Plan.
481	The ORT and UAT shall require end-to-end Transaction processing utilizing the test Environments of the CCSS, Collections, and FLHSMV external entities.
482	To the extent possible, the ORT and UAT shall compare the data from TOBS and test OBOS to verify the correct operation of all OBOS functions including, but not limited to, end-to-end Transaction processing, Dashboards, and reports (parallel test).
483	The second part of the ORT and UAT shall utilize all Transactions generated by TOBS for a period as agreed to between the Contractor and the Authority. This test shall compare overall transaction volume as well as selected actual Transactions processed by TOBS to those same Transactions processed by the test OBOS and the test interfaces. This shall be a statistical analysis as an exact match in all cases is not expected.
484	The ORT and UAT shall include provisions for Ad-Hoc testing under the direction of the Authority.
485	The ORT and UAT shall require the Contractor to work iteratively and cooperatively with the CCSS, Collections and FLHSMV to coordinate testing and ensure that enough test accounts are established to adequately, and independently verify the correct operation of each external interface.
486	The Authority staff shall participate in the ORT and UAT by exercising all interactive functions including screens, Dashboards, reports, User access, etc.

Req. #	Requirement
487	The ORT and UAT shall include OBOS load/volume stress testing at a rate of 1,000 UFM Transactions per minute for 24 hours. This test shall include simulated Transactions generated by the Contractor to the test OBOS and the transmission of Transactions from the Test Environment of OBOS to the Test Environment of CCSS as well as ack/nak response from the CCSS. The required performance pass criteria of this test shall be 100% of the stated volume requirement.
488	Exit Criteria – The ORT and UAT shall pass testing when all the required end-to-end testing, reporting, and all other functions and exit criteria defined in the Master Test Plan and ORT and UAT Plan have been successfully completed.

#### 6.3.4.4 Security and Network Penetration Test

The purpose of the Security and Network Penetration Test is to ensure that the OBOS is secure from external threats prior to Go-Live. The test shall ensure compliance with NIST standards for external threats.

Req. #	Requirement
489	The Security and Network Penetration Test (SPT) shall be conducted prior to Go-Live.
490	The SPT shall ensure data and functionality are maintained as intended by identifying any potential flaws in the security mechanisms of the System platform.
491	The SPT shall verify that all security Requirements have been implemented.
492	The SPT shall identify and test for:
492.1	<ul style="list-style-type: none"> <li>Common Vulnerabilities &amp; Exposures (CVE)</li> </ul>
492.2	<ul style="list-style-type: none"> <li>Open Worldwide Application Security Project (OWASP) Top 10 Web Application Security Risks</li> </ul>
492.3	<ul style="list-style-type: none"> <li>Penetration Testing Execution Standard (PTES)</li> </ul>
492.4	<ul style="list-style-type: none"> <li>Compliance with NIST standards</li> </ul>
492.5	<ul style="list-style-type: none"> <li>Test Duration – There is no defined duration for this test.</li> </ul>
492.6	Exit Criteria – The SPT shall pass testing when all of the identified vulnerabilities in the Test Plan have been successfully completed and all exit criteria, as documented in the Master Test Plan and SPT Test Plan have been met.

#### 6.3.4.5 Disaster Recovery Test

The Disaster Recovery Test (DRT) shall ensure that the OBOS can be returned to a fully operational state in the event of a catastrophic failure of the production OBOS.

Req. #	Requirement
493	The DRT shall be conducted after the SPT and prior to Go-Live.

Req. #	Requirement
494	<p>The DRT shall be initiated manually following a simulated “disaster” on the OBOS. The simulated disaster shall be defined in the test plan. The DRT Plan shall include:</p> <ul style="list-style-type: none"> <li>• Method of switch over to and back from the DR site including IP addresses</li> <li>• Duration of DR test</li> <li>• Type of failure(s) to be simulated.</li> <li>• Expected deviations due to injected failure and use of test systems.</li> <li>• Coordination with external interfaces including CCSS and Collections</li> <li>• Method of evaluating results</li> </ul>
495	<p>The DRT shall include:</p> <ul style="list-style-type: none"> <li>• RPO and RTO result and proposed cure if not within specs.</li> <li>• Testing of end-to-end transaction processing and selected functions of OBOS</li> <li>• Discount Plan validation</li> <li>• Data integrity validation</li> <li>• Performance Testing</li> <li>• Recovery of the test OBOS</li> <li>• Resumption of data replication</li> </ul>
496	<p>The Contractor shall prepare and perform periodic tests of its Disaster Recovery Plan, at a minimum once every year, on or about the anniversary date of the OBOS Go-Live. These tests shall be coordinated with the Authority.</p>
497	<p>The Authority staff shall be provided complete access to observe all Disaster Recovery Test activities.</p>
498	<p>After any DR event or test is concluded, the Contractor shall document lessons learned and update the Disaster Recovery Plan in accordance with those lessons and submit it for the Authority’s review and Approval no later than thirty (30) Calendar Days after completion of the DR event.</p>
499	<p>Test Duration – The DRT shall run for at least three (3) Calendar Days with live TOBS transactions to ensure sufficient exercising of the System.</p>
500	<p>Exit Criteria – The DRT shall pass testing when the performance validation, all identified functions, recovery of the Primary OBOS, resumption of the DR System have been successfully completed, and all exit criteria, as documented in the Master Test Plan and DRT Test Plan have been met.</p>

**6.3.4.6 Go-Live Test**

The Go-Live Test is a verification of OBOS functionality starting immediately upon OBOS Go-Live. The test will require verification of normal operations as well as detailed scrutiny of Transaction processing and performance.

Req. #	Requirement
501	<p>The Go-Live Test (GLT) shall begin when all the following steps have been completed as summarized in Appendix G - OBOS Go-Live Overview.</p>
501.1	<ul style="list-style-type: none"> <li>• The OBOS has been connected to the CCSS, Collections and Florida FLHSMV production Systems using live data and replacing TOBS as the System of record.</li> </ul>
501.2	<ul style="list-style-type: none"> <li>• All functions and external interfaces shall have been tested and verified via the ORT and UAT.</li> </ul>

Req. #	Requirement
501.3	<ul style="list-style-type: none"> <li>All Transactional data up to the point of the Go-Live date has been migrated from the TOBS to the Primary OBOS Production Database.</li> </ul>
502	The GLT shall commence immediately upon the Primary OBOS becoming the production System.
503	The GLT shall require extensive end-to-end Transaction monitoring with the CCSS, Collections, and FLHSMV external entities using live data.
504	As the transition to OBOS will occur at 12:00 am (midnight) ET all stakeholders should be represented by individuals on-line or on-site with responsibilities as defined in the Master Test Plan and access to the OBOS for verification of correct operation.
505	Test Duration – The GLT shall be conducted over a period of three (3) months and include full exercising and evaluation of all OBOS functions and transaction processing scenarios.
506	Exit Criteria – The GLT shall pass testing when all punch list items accumulated during the test have been corrected or dismissed as Approved by the Authority and all exit criteria, as documented in the Master Test Plan and GLT Test Plan have been met.

#### 6.3.4.7 RTCS Integration Tests

This test shall utilize the test systems of the OBOS external entities. The RTCS Integration Test (RIT) is meant to verify that Transactions from the RTCS are received in real time and translated by the OBOS into a form compatible with UFM production as well as Dashboard and report generation.

Req. #	Requirement
507	RTCS FAT support – During this test and at a point selected by the roadside contractor, the OBOS Contractor shall participate, configure and operate the Test OBOS to support the RTCS FAT which will be run at a test site with actual vehicles.
508	The Contractor shall identify minimum bandwidth requirements for the ISP in the case of an edge solution.
509	<p>The Contractor shall test the OBOS with simulated messages generated by the RTCS and the OBOS. Messages shall include:</p> <ul style="list-style-type: none"> <li>ETC transactions</li> <li>IBT transactions</li> <li>Images request</li> <li>Image response</li> <li>Video request</li> <li>Video response</li> <li>Reconciliation Request</li> <li>Reconciliation Response</li> <li>Invalid messages</li> </ul> <p>The quantities of the above messages will be established by the RTCS and OBOS Contractors.</p>
510	Each API message shall be analyzed for correct content and request/ACK response.
511	The RIT shall include OBOS load/volume stress testing at a rate of 1,000 Transactions per minute for 24 hours. This test shall support simulated Transactions from the RTCS to the test OBOS and the transmission of Transactions from the test OBOS to the test CCSS.
512	RTCS FAT support – This test shall include a limited set of end-to-end Transactions of actual vehicles, selected in cooperation with the RTCS contractor, using the RTCS test site. The test shall include the following functions at a minimum:

Req. #	Requirement
	<ul style="list-style-type: none"> <li>• ETC transaction</li> <li>• IBT transaction</li> <li>• Image request</li> <li>• Image response</li> <li>• Video request</li> <li>• Video response</li> </ul> <p>The quantities of the above messages will be established by the RTCS and OBOS Contractors.</p>
513	Test Duration – There is no defined duration for this test.
514	Exit Criteria – The RIT shall pass testing when all of the required testing of the specified functions have been successfully completed, and all exit criteria, as documented in the Master Test Plan and RIT Plan have been met.

#### 6.3.4.8 Toll Site Commissioning Test (TSCT)

The purpose of the Toll Site Commissioning Test (TSCT) is to verify the OBOS compatibility with the new RTCS in a production environment and to determine that the Transactions from each RTCS gantry, as they go live, are being properly received and processed by the OBOS.

The TSCT applies to the installation of each new RTCS tolling point and will consist of two parts from an OBOS perspective:

- 1) Detection but not processing of actual vehicles on the roadway.
- 2) Fully operational RTCS with end-to-end processing of site transactions.

Req. #	Requirement
515	The Contractor’s preparation and performance of the TSCT shall be done as a cooperative effort with the RTCS Contractor.
516	The TSCT shall begin when the first RTCS gantry is put into service and connected to the OBOS.
517	The TSCT shall be performed with the Primary OBOS production System already in use and shall process tolls from actual expressway traffic.
518	Following the installation and prior to the live operation of the RTCS gantry, the RTCS shall send live traffic transactions to the Primary (production) OBOS as a final verification of connectivity and messaging. These transactions shall have a Type of “TEST”, out-of-range transaction IDs, be stored separately from actual transactions, and shall not be further processed by the OBOS.
519	Upon verification operation with test transactions, and at the RTCS Contractor’s discretion, the existing tolling site will be shut down and the new RTCS site will begin sending live transactions to the OBOS for production processing.
520	Live transaction TSCT shall be conducted using actual traffic. The volume of transactions to be tested at this point shall be determined in the test plan.
521	The OBOS shall continue to utilize the TOBS for the recently transitioned tolling site to retrieve plate numbers and images to fully process the most recent transactions that were sent to the OBOS from the legacy gantry prior to the switch to the new RTCS.
522	The TSCT shall verify the correct end-to-end Transaction processing of OBOS with RTCS Transactions. The TSCT shall utilize reports and Dashboards as part of this test.
523	Test Duration – The TSCT shall be conducted for a duration agreed upon with the RTCS Contractor and long enough to achieve a consensus of confidence among all stakeholders that



Req. #	Requirement
	the integration of the new site is operating correctly. This shall be done for each installed tolling site.
524	Exit Criteria – The TSCT shall pass testing when all of the required testing of the specified functions have been successfully completed and all exit criteria, as documented in the Master Test Plan and TSCT Test Plan have been met. The TSCT for each installation must pass before the next tolling site is put into Production

#### 6.3.4.9 System Acceptance Test

The System Acceptance Test (SAT) is the final test of the OBOS in which all OBOS functionality and performance is tested. The SAT may commence thirty (30) Calendar Days after the first TSCT passes.

Req. #	Requirement
525	During the SAT, the OBOS shall be fully operational and utilizing the RTCS from at least one fully tested RTCS installation.
526	The criteria required for the OBOS to pass the SAT shall include:
526.1	<ul style="list-style-type: none"> <li>THE OBOS is functioning as required for at least two full calendar months and all open items have been resolved with sufficient time for verification.</li> </ul>
526.2	<ul style="list-style-type: none"> <li>All KPIs have been met or exceeded for at least two full consecutive calendar months.</li> </ul>
526.3	<ul style="list-style-type: none"> <li>All information available from the OBOS via reports, User screens and Dashboards is accurate and complete.</li> </ul>
526.4	<ul style="list-style-type: none"> <li>All User interfaces are operating in accordance with Requirements and specifications.</li> </ul>
527	Verification – The System Acceptance Test Plan shall address the method and time duration in which the above bulleted items shall be verified.
528	Test Duration – The System Acceptance Test (SAT) shall include at least two full calendar months.
529	Exit Criteria – The SAT shall pass testing when all punch list items accumulated during the test have been corrected or dismissed as Approved by the Authority and all exit criteria, as documented in the Master Test Plan and SAT Plan have been met.

## 7 Maintenance Requirements

During the Operations and Maintenance Phase of the Contract, the Contractor is wholly responsible for the Software, Hardware, and staff necessary to ensure the OBOS is fully operational and functional.

### 7.1 General Maintenance

Req. #	Requirement
530	The Contractor shall provide, for the Authority’s review and Approval, a comprehensive Maintenance Plan detailing the Contractor’s approach and methodology to ensure the on-going OBOS operations, and performance in compliance with the Requirements. The Maintenance Plan shall be submitted for review and Approval no later than ninety (90) Calendar Days prior to Go-Live.
531	The Maintenance Plan shall describe the Contractor’s approach to the replacement and resolution of any issues related to obsolescence, end of life or end of service Hardware and/or Software components of the System, including procurement lead times, THEA approvals, appropriate testing, scheduled rollouts and rollbacks if necessary.
532	The Contractor shall be wholly responsible for designing and maintaining the OBOS in a manner that ensures it is fully operational and functional twenty-four (24) hours per day, seven (7) days a week and three hundred and sixty five (365) days a year excluding Approved Maintenance.
533	The Contractor shall include OBOS Maintenance and Software/Hardware support services, including but not limited to the following:
533.1	<ul style="list-style-type: none"> <li>• Real time, on-going System monitoring</li> </ul>
533.2	<ul style="list-style-type: none"> <li>• Alert tracking and notification</li> </ul>
533.3	<ul style="list-style-type: none"> <li>• Maintenance history tracking</li> </ul>
533.4	<ul style="list-style-type: none"> <li>• Preventative Maintenance</li> </ul>
533.5	<ul style="list-style-type: none"> <li>• Predictive Maintenance</li> </ul>
533.6	<ul style="list-style-type: none"> <li>• Corrective Maintenance</li> </ul>
533.7	<ul style="list-style-type: none"> <li>• Emergency Maintenance Services</li> </ul>
533.8	<ul style="list-style-type: none"> <li>• Updates, upgrades and patches</li> </ul>
533.9	<ul style="list-style-type: none"> <li>• Warranty and Software license Maintenance</li> </ul>
534	Any OBOS Maintenance that may cause the OBOS or any portion thereof to be down or unavailable to Users shall be submitted to the Authority for review and Approval at least ten (10) Calendar Days in advance of the requested maintenance with the exception of emergency Maintenance. This request shall include the following: <ul style="list-style-type: none"> <li>• Date of Maintenance</li> <li>• Start and End time of Maintenance</li> <li>• Specific Reason for Maintenance</li> <li>• Affected functionality</li> <li>• Any testing that may be required as a result of the Maintenance</li> </ul>
535	Any failures and/or System unavailability associated with not completing scheduled Maintenance within the Approved Schedule Maintenance Period shall be included in the calculation of compliance/non-compliance with Key Performance Indicators as detailed in Appendix J - Key Performance Indicators. Such failures shall be accounted for based on priority level and shall be addressed in accordance with these Requirements.

Req. #	Requirement
536	The Contractor shall supply all Software, licenses, contractual services, and appropriate staff necessary to maintain the OBOS in accordance with the Requirements.
537	The Contractor shall ensure the OBOS does not demonstrate degraded performance. Examples of degraded OBOS performance include but are not limited to, loss of functionality, System slowdown, and System or application errors.
538	The Contractor shall provide Help Desk Support, via phone and email, to Users during the Authority business hours within 30 minutes of the request. Help Desk Support is provided to assist Users with the operation of the OBOS. This is not to be confused with Maintenance issues reported by the Users.
539	The Contractor shall obtain the Authority's Approval for the scheduling of emergency Maintenance/corrective actions, as needed.
540	The Contractor shall notify any external entities that may be affected by the Maintenance activity after obtaining Approval by the Authority.
541	The Contractor shall perform all OBOS maintenance in a safe, secure, efficient and timely manner while minimizing OBOS downtime.
542	Except for emergency Maintenance, the Contractor shall obtain approval from THEA for all maintenance windows. In general, Maintenance windows should be scheduled between 8 pm and 4 am.
543	The Contractor shall notify the Authority of any unplanned downtime or degraded performance immediately upon becoming aware of the OBOS being unavailable, or the need to make the OBOS unavailable. The Contractor shall obtain the Authority's approval for all communication with external entities.
544	The Contractor shall take appropriate action to correct all OBOS failure conditions.
545	The Contractor shall provide an incident report for each unexpected service disruption. This report shall be provided to the Authority no later than two (2) Business Days of the resolution of the issue. The incident report, at a minimum, shall include the following: <ul style="list-style-type: none"> <li>• Detailed description of the event</li> <li>• Root Cause</li> <li>• Consequences and impacts</li> <li>• Duration (start and end time)</li> <li>• Details of lost data, if any</li> <li>• Recovery/ Resolution</li> <li>• Lessons Learned - How to prevent the re-occurrence of this issue</li> </ul>
546	The Contractor shall be responsible for monitoring, maintaining, and renewing all licenses to ensure uninterrupted OBOS usage, avoiding any disruptions due to expired licenses.

## 7.2 System Monitoring

Req. #	Requirement
547	The OBOS shall include a Maintenance and monitoring module and ticket system which is the repository of all Maintenance activity and Alerts which can be viewed by Users. This shall monitor Production and Disaster Recovery Systems.
548	The Contractor shall provide authorized Authority staff access to the Maintenance ticket system to log issues and document System problems encountered, review the status of open tickets and research past tickets.

Req. #	Requirement
549	The System shall automatically detect, track, report and store all OBOS Maintenance and Maintenance issues.
550	The OBOS shall include network monitoring Software to monitor the network status and communications.
551	Simple Network Management Protocol (SNMP) shall be disabled by default on all network devices within the OBOS network environment, including routers, switches, firewalls, and other network infrastructure components.
552	If SNMP is required for network management tasks, it shall only be enabled with secure settings and configurations, including the use of SNMPv3 or higher versions with strong authentication and encryption mechanisms.
553	Access Control lists (ACLs) shall be implemented to restrict SNMP access to authorized management systems or entities within the segregated network, based on IP address, subnet, or other criteria as specified by network administrators.
554	Default SNMP community strings or passwords shall be replaced with unique and strong values (a random string of at least 12 characters, including uppercase letters, numbers, and special characters) to prevent unauthorized access to SNMP-enabled devices within the OBOS network.
555	Upon start-up or initialization, the OBOS shall perform a self-diagnostic test to ensure full and complete operation of all OBOS functionality. Alerts shall be reported for all failure conditions.
556	The Contractor shall establish an ongoing process to monitor, measure, calculate, and report compliance with Key Performance Indicators.
557	The Contractor shall monitor the OBOS performance in terms of latency and throughput using appropriate tools and techniques to identify any performance bottlenecks or issues.
558	The Contractor shall develop a process for identifying and classifying newly discovered network assets based on their characteristics and attributes.
559	The Contractor shall implement anomaly detection mechanisms to identify unusual or unexpected behavior on the network that may indicate the presence of a new asset.
560	The Contractor shall establish baseline profiles for normal network activity and alert on deviations from these baselines that may indicate the presence of unauthorized devices.
561	The Contractor shall monitor network traffic patterns, communication protocols, and data flows to detect anomalies associated with new assets joining the network.

### 7.2.1 Alerts

Req. #	Requirement
562	The OBOS shall include Alerts which are defined as the identification and notification to designated parties of an OBOS failure or anomaly that requires a response. These alerts may be generated by the OBOS or received by the OBOS from external entities.

Req. #	Requirement
563	The OBOS shall include, and the Contractor shall monitor and respond to the following types of Alerts: <ul style="list-style-type: none"> <li>• Network Alerts</li> <li>• Data Alerts</li> <li>• Cloud Alerts</li> <li>• Internal Services and Communication Alerts</li> <li>• Logical Failure Alerts</li> <li>• Access Alerts</li> <li>• Security Alerts</li> </ul>
564	Specific OBOS Alerts will be defined during the Design and Implementation Phase. Required Alerts shall include but not be limited to the following events: <ul style="list-style-type: none"> <li>• Connectivity or transmission issues with an external or internal system</li> <li>• Failed data validation</li> <li>• Incoming data transfers not received as expected (e.g. by a configurable time each day)</li> <li>• An expected download of files or data is unsuccessful</li> <li>• Security breach or Intrusions</li> <li>• Disk capacity issues (e.g., files and/or data capacity has reached a specified configurable threshold)</li> <li>• Any failure to an internal process or micro-service</li> <li>• Exception to Transaction processing rules</li> </ul>
565	Notification of unresolved Alerts shall repeat in accordance with a configuration table until acknowledged.
566	The OBOS shall allow for Alerts to be manually entered.
567	The OBOS shall include configurable thresholds related to Alert events.
568	The OBOS shall include an Alert configuration table that specifies the Alert type, source, required contact information, contact methodology (i.e., telephone call, email, and text messages) and Alert priority level.
569	All Alerts shall be recorded and stored in the OBOS maintenance and monitoring module.
570	An automatic email to a specified OBOS Alert contact list shall be generated and sent anytime an Alert condition occurs.
571	The specific User Alert screens, reports and Dashboards will be finalized during the Design and Implementation Phase.
572	All Alerts shall be displayed on Users' rolling Dashboards with the most recent Alert on top.
573	Each Alert shall be displayed in a different color on the Dashboard based on priority.
574	The Contractor shall resolve all assigned Alerts directly or notify the third-party responsible for resolution.
575	Alerts will have an indicated priority as well as an indicator as to whether the issues should be entered into the ticket System for resolution.

### 7.3 Authority Identified Anomalies and Research Requests

In addition to the Contractor's monitoring of the OBOS performance, the Authority will also review System and performance data and perform tests as deemed necessary. As a result of the Authority's activities, the Authority may request that the Contractor research and/or provide additional data, identify the extent of a possible issue and/or provide an explanation related to anomalies or trends identified by the Authority.

Req. #	Requirement
576	The Contractor shall respond and fulfill the Authority’s requests for research, analysis, and/or explanation and provide feedback/report within the timeframe agreed to and Approved by the Authority.

#### 7.4 Vulnerability Management, Scan and Audits

Req. #	Requirement
577	The Contractor shall ensure that all OBOS components (Hardware, Software, hypervisor, operating System, database, network/firewall, etc.) are managed to limit System vulnerabilities.
578	The Authority will be periodically contracting with an independent security audit firm throughout the life of the Contract. The Contractor shall fully support, participate in and assist in the Authority’s performance of OBOS audits. These audits include, but are not limited to vulnerability checks, security scans, penetration testing, risk assessments and audits.
579	The Contractor shall allow the Authority to conduct and perform independent audits of the OBOS. This includes the use of audit Software tools on the OBOS.
580	The Contractor shall engage a third-party licensed Certified Public Accounting (CPA) firm or agency accredited by the American Institute of Certified Public Accounts (AICPA) to perform an annual Service Organization Control (SOC) 2, Type 1 audit. The SOC 2, Type 1 audit shall be completed, and the audit report shall be provided to the Authority for review and Approval no later than one hundred and eighty (180) Calendar Days after successful completion and the Authority’s Approval of the OBOS Go-Live test. A SOC 2 Type 2 audit shall be conducted every two (2) years thereafter.
581	The SOC 2 – Type 1 Audit report shall be provided to the Authority directly from the third-party at the same time it is provided to the Contractor.
582	The Contractor shall prepare and submit to the Authority for review and Approval, a resolution plan, addressing all issues disclosed as a result of any OBOS audits
583	The Contractor shall correct all deficiencies and vulnerabilities disclosed as a result of any audits.

#### 7.5 Incident Management

Req. #	Requirement
584	All actual or potential security incidents and breaches shall be reported to the Authority immediately after the Contractor becomes aware of the situation.
585	In the event of a cyber security breach of any kind, the Contractor shall follow the Authority’s Security Policy including notification procedures, legal and the Authority’s insurance Requirements.
586	The Contractor shall provide a root cause and resolution analysis report of all resolved issues no later than ten (10) Business Days of issue resolution, or within a timeframe proposed by the Contractor and agreed to and Approved by the Authority.
587	The Contractor shall fully cooperate and assist in the investigation of suspected or actual security incidents when required by the Authority.

## 7.6 Change Control

Req. #	Requirement
588	The Contractor shall utilize a change management process to document all changes to the OBOS.
589	<p>Prior to making any changes to the OBOS, the Contractor shall provide Documentation to the Authority for review and Approval supporting the proposed changes including:</p> <ul style="list-style-type: none"> <li>• Description of the change</li> <li>• List of affected Software components</li> <li>• List of all OBOS components that are impacted by the changes</li> <li>• Step-by-step process outlining how the changes have been reviewed and tested prior to releasing them into production</li> <li>• Contractor’s internal test results</li> <li>• How the changes will be implemented</li> <li>• Post-installation verification process</li> <li>• Roll-back plan in case the changes result in errors or unanticipated behavior</li> <li>• Schedule of when the changes are expected to take place</li> <li>• Estimated duration of the change execution</li> <li>• The need to notify affected agencies and partners</li> <li>• Any necessary regression tests</li> <li>• Release notes</li> <li>• List of impacted documents, manuals, and training materials.</li> </ul>
590	The Contractor shall track all changes to the source code and all other components of the OBOS.
591	The Contractor shall track all changes to configuration files, scripts, database configuration files, documents, plans, and any other affected files.
592	The Contractor shall update any affected Documentation, including all manuals and deliver updates to the Authority for review and Approval no later than thirty (30) Calendar Days of a change requiring updated Documentation.
593	The Contractor shall follow auditable change control procedures for all modifications to the OBOS, its associated Hardware, Software, firmware, configuration parameters, etc.
594	The Contractor shall ensure that each component of the OBOS, both Hardware and Software, is always within one patch version of the most current version released by the third-party provider.
595	The Contractor shall perform continuous assessments of obsolescence to ensure at least 12 months advanced notice of any third-party Software becoming unsupported. The cost for all testing and the implementation of replacement Software shall be borne by the Contractor.
596	The Contractor shall communicate to the Authority any obsolescence, end of life or end of service support for Hardware and Software.
597	All Systems/Software shall be upgraded and compatible with the latest Operating System at the time of System Acceptance by the Authority. The method of validation shall be addressed in the System Acceptance Test Plan.



### 7.7 Updates and Patches

Req. #	Requirement
598	The Contractor shall monitor, maintain, and manage software manufacturer patches, updates, and other manufacturer recommended changes.
599	The Contractor shall be responsible for ensuring that operating Systems and databases are current with the latest Security patches and Updates.
600	The Contractor shall apply patches, Updates, or other service notices supplied by the Equipment manufacturer or Software supplier, no later than thirty (30) Calendar Days from the release and notification by the manufacturer.
601	The Contractor shall notify the Authority of all Updates or security patches prior to applying them to the production OBOS.
602	The Contractor shall test each new Software release using the Test Environment, provide a written test report, and submit the report for the Authority’s review and Approval no later than five (5) Business Days prior to the scheduled update. Depending on the nature of a Software release, the Contractor may be required to develop test scripts for the Authority’s review and approval prior to conducting any testing.
603	The Contractor shall develop a Software release schedule for the Authority’s review and Approval before testing the release. The release schedule shall also include information on the details of the release.

## 8 Succession Requirements

Req. #	Requirement
604	If the Contract between the Authority and the Contractor is terminated for convenience, default, or expiration of the Contract Term or any extensions thereof, the Contractor shall cooperate with the Authority to facilitate a smooth succession to a Successor system provider. The Successor may be the Authority, the Contractor, or another service provider.
605	The Contractor shall create a Succession Plan detailing a method for the orderly transfer of knowledge, data, manuals, documents, assets, licensing, warranties, and business relationships from the Contractor to the Successor. The Succession Plan shall include an overview and sequential steps detailing the transfer of the OBOS services to the Successor. The Succession Plan shall be submitted to the Authority for review and Approval no later than sixty (60) Calendar Days after Go-Live.
606	<p>The Succession Plan shall address, at a minimum, the following, as applicable:</p> <ul style="list-style-type: none"> <li>• Contractor provision of knowledgeable subject matter experts (SME) to the Authority</li> <li>• Contractor participation in document reviews and planning meetings, as requested by the Authority</li> <li>• Contractor provides uninterrupted and continued Operations and Maintenance of the Contractor’s OBOS during the transition</li> <li>• Transfer of Cloud Services including configuration, software and data to an account held by others (Authority or new Contractor).</li> <li>• Transfer and configuration of any multi-tenant Services that are part of OBOS operation to an account held by others (Authority or new Contractor).</li> <li>• Transfer of physical assets, including a current list of assets and their owners which shall be updated throughout the O&amp;M Phase</li> <li>• Transfer of product, usage and Software licenses, including a current list of licenses (name, purpose, identifier, contact information, license details) which shall be updated throughout the O&amp;M Phase</li> <li>• Transfer of service contracts, including a current list of contracts (name, purpose, terms, dates, contact information)</li> <li>• All OBOS data such as customer Demographics, Transactions, file histories, and images. <ul style="list-style-type: none"> <li>○ OBOS configuration histories</li> <li>○ All archived data</li> <li>○ ICDs</li> <li>○ Locations</li> </ul> </li> </ul>
607	The Contractor shall be responsible for updating the draft Succession Plan during the Contract Term after any material changes or as directed by the Authority.
608	In the event a transition of Services under this Contract becomes necessary, the Authority may declare a Succession Event.
609	Upon Notice of a Succession Event by the Authority, the Contractor shall provide succession assistance, and the parties shall meet and confer as requested to enable a smooth transition.
609.1	The Contractor shall coordinate reviews of the Contractor’s Succession Plan, Data Dictionaries, and all OBOS related Documentation, and apply any necessary updates to each document. These updated documents shall be submitted to the Authority for review and Approval.
609.2	The Contractor shall designate a Succession Manager to be a single point of contact for all succession-related issues.

Req. #	Requirement
609.3	The Contractor shall continue to provide OBOS Operations and Maintenance Support, including continued Maintenance of the OBOS, monitoring and Maintenance of associated Systems and subsystems, System interfaces (System and operational) and meeting or exceeding all Contract KPIs until a coordinated Successor System Go-Live is completed or the Authority agrees to release Contractor of its responsibilities.
609.4	The Contractor shall attend and actively participate in meetings with the Authority staff and Successor staff for the purposes of identifying, discussing, planning, tracking, and resolving succession-related tasks and issues.
609.5	<p>The Contractor shall provide the Authority with copies of all data, including but not limited to, completed and in-progress documents (Design-related or other), As-built Documentation, infrastructure Designs in the possession, custody, or control of the Contractor (or any Subcontractors), and reasonable assistance with ensuring that data is accessible, readable, and usable by the Authority.</p> <p>If requested by the Authority, the Contractor shall provide all data and documents in the native Software format used to create the data and/or Deliverable, and any other format as agreed by the Authority.</p>
609.6	<p>The Contractor shall support data migration planning and execution activities (i.e. from the Contractor’s System to the Successor’s System) by making SMEs available to:</p> <ul style="list-style-type: none"> <li>• Participate in Data Migration meetings</li> <li>• Review and comment on Successor Data Migration Plans</li> <li>• Coordinate with Successor and/or other Project stakeholders to identify a data format for data extracted from the Contractor’s System and establish account, code and data mapping convention(s)</li> <li>• Extract data from the Contractor’s System and assist with the migration of OBOS data to the Successor System as requested by the Authority and Successor</li> <li>• Assist the Successor and the Authority with migration tasks as requested by the Authority</li> <li>• Assist in the development of migration testing scripts as requested by the Authority</li> <li>• Assist with data validation efforts</li> <li>• Assist the Authority and Successor with the execution and coordination of the Data Migration Plan</li> <li>• Support other migration efforts and duties as identified and requested by the Authority</li> </ul> <p><b>Note:</b> The SMEs the Contractor makes available to support data migration planning and execution efforts shall be knowledgeable of the Authority and the Contractor’s OBOS, shall have worked with the Authority, shall know the Authority OBOS database, database architecture and database Design, and shall be knowledgeable of data extraction techniques out of the Contractor’s System.</p>
609.7	The Contractor shall provide OBOS Interface support, including providing access (if necessary) to FTP servers, access to production files exchanged between all Systems and external interfacing systems, and other support as identified by the Authority.

Req. #	Requirement
609.8	<p>The Contractor shall support transition and cutover planning and execution activities (i.e. transition from the Contractor’s System to the Successor’s System) by making SMEs available to:</p> <ul style="list-style-type: none"> <li>• Participate in transition and cutover meetings</li> <li>• Review and comment on transition and cutover Plans to identify any risks or deficiencies, provide expertise regarding decommissioning of the Contractor’s OBOS, participation in the transition planning, including the transition schedule or tasks and sequence of tasks</li> <li>• Participate in the execution of the transition and cutover Plan, including scheduling, troubleshooting, and implementation of roll-back procedures as required by the Authority</li> <li>• Provide other support as identified by the Authority</li> </ul> <p><b>Note:</b> The SMEs the Contractor makes available to support transition and cutover planning and execution activities shall be knowledgeable of the Authority, the Contractor’s OBOS Design and shall have worked with the Authority.</p>
609.9	<p>The Contractor shall support network transition planning and execution activities by making SMEs available to:</p> <ul style="list-style-type: none"> <li>• Participate in transition planning meetings</li> <li>• Provide a list of all network Equipment in use for the OBOS</li> <li>• Attend meetings with the Authority and the Successor to discuss the OBOS network/architecture, devices, current configuration settings, topology, etc.</li> <li>• Transition network devices to the Authority and the Successor when requested by the Authority</li> <li>• Participate in the execution of the transition, including trouble shooting, implantation of roll-back procedures if necessary</li> <li>• Provide other support as identified by the Authority</li> </ul> <p><b>Note:</b> The SMEs the Contractor makes available to support network transition planning and execution activities shall be knowledgeable of the Authority, the Contractor’s OBOS Design, the Contractor’s OBOS network and Equipment, and shall have worked with the Authority.</p>
609.10	<p>The Contractor shall support decommissioning planning and execution activities for the Contractor’s OBOS by making SMEs available to:</p> <ul style="list-style-type: none"> <li>• Participate in transition and decommissioning planning meetings</li> <li>• Develop an OBOS Decommissioning Plan, and submit it for review and approval by the Authority</li> <li>• Participate in and coordinate with the Authority and Successor to decommission the Contractor’s OBOS</li> <li>• Provide other support as identified by the Authority</li> </ul> <p><b>Note:</b> The SMEs the Contractor makes available to support OBOS decommissioning planning and execution activities shall be knowledgeable of the Authority, the Contractor’s OBOS Design and operation, and shall have worked with the Authority.</p>
609.11	<p>The Contractor shall support the transition of the Authority Assets, including all the Authority assets currently in use by the Contractor and the OBOS (e.g. all Hardware, switches, servers, reporting server/data warehouse, etc.), provide User and/or administrative rights to these assets, as requested, and coordinate with the Authority regarding formal turnover of all assets upon decommissioning of the Contractor System.</p>

Req. #	Requirement
609.12	The Contractor shall support the transition/transfer of all third-party provider contracts and COTS licenses and/or subscriptions necessary to operate and maintain the Contractor’s OBOS, including any Software/Provider contracts (e.g. Cloud Service Provider) and materials as requested by the Authority.
609.13	The Contractor shall participate in Documentation reviews, provide comments, and participate in comment resolution meetings as requested by the Authority.
609.14	The Contractor shall participate in, and complete other tasks as identified by the Authority specifically relating to the succession.
610	While providing succession Services to the Authority, the Contractor shall be required to submit a weekly Succession Status Report to the Authority. The Succession Status report shall be used to track all activities the Contractor performed in support of succession activities and related expenses.
610.1	<p>The Contractor shall coordinate with the Authority on the final content and format of the report, but shall include, at a minimum, the following information:</p> <ul style="list-style-type: none"> <li>• A list of all activities the Contractor’s succession support staff performed for the week</li> <li>• A breakdown (by staff and/or position and associated labor rate) of all activities performed and/or meetings attended, and the number of hours spent by staff members on each activity</li> <li>• The Succession Status Report shall reflect the total costs anticipated to be invoiced to the Authority for the week’s succession support Work.</li> </ul>
611	The Contractor shall invoice the Authority monthly for succession support.

## 9 Performance Requirements and Key Performance Indicators

The Contractor and the OBOS are required to meet all Requirements as detailed in this SOW. In addition, the Authority has identified specific Key Performance Indicators (KPI's) which the Contractor and OBOS shall meet or exceed during the Operations and Maintenance Phase for the Contractor to avoid Invoice Adjustments. These KPIs, as well as related Invoice Adjustment for non-compliance, are detailed in Appendix J - Key Performance Indicators. During the Design and Implementation Phase, the Authority and the Contractor will finalize the specific reporting Requirements and method of measurement for each KPI.

### 9.1 General Performance Requirements

Req.#	Requirement
612	The OBOS shall meet or exceed all Requirements and KPI's.
613	Non-compliance with a KPI due to a Chargeable failure will result in an Invoice Adjustment as detailed in Appendix J – Key Performance Indicators. The assessment/waiving of all Invoice Adjustments is at the sole discretion of the Authority.
614	The Contractor shall take immediate corrective action to remedy any failures and ensure that corrective action is taken to prevent repeated failures in the future.
615	The Contractor shall provide a corrective action Plan to the Authority for review and Approval that documents corrective action taken to resolve the issue and to prevent future reoccurrences of the issue.
616	Failure to meet a Requirement or KPI does not relieve the Contractor of its obligation to comply with the Requirement/KPI and to complete all associated required activities.
617	As part of the Contractor's monthly invoice during the Operations and Maintenance Phase, the Contractor shall submit a KPI compliance report. For each KPI listed in Appendix J – Key Performance Indicators, the report shall provide the following information:
617.1	<ul style="list-style-type: none"> <li>Actual performance related to each KPI for the calendar month</li> </ul>
617.2	<ul style="list-style-type: none"> <li>An indication of compliance or non-compliance with each KPI for the Calendar month</li> </ul>
617.3	<ul style="list-style-type: none"> <li>Calculated Invoice Adjustment for non-compliance with each KPI, if applicable</li> </ul>
617.4	<ul style="list-style-type: none"> <li>A summary schedule showing compliance/non-compliance with each KPI for a rolling 12-month period</li> </ul>
617.5	<ul style="list-style-type: none"> <li>Back-up data supporting the KPIs and all calculations</li> </ul>

### 9.2 Non-Chargeable and Chargeable Failures

For purposes of calculating Invoice Adjustments for non-compliance with Requirements and KPIs, Chargeable and Non-Chargeable Failures are defined as follows:

- Non-Chargeable failures are those failures that are identified in the following section. Invoice Adjustments for non-compliance related to Non-Chargeable Failures will not be assessed.
- Chargeable Failures are any failures not specifically identified as Non-Chargeable Failures. Invoice Adjustments for non-compliance related to Chargeable Failures will be assessed, at the discretion of the Authority.

### 9.2.1 Non-Chargeable Failures

Req. #	Requirement
618	<p>Non-Chargeable Failures shall include:</p> <ul style="list-style-type: none"> <li>• Force majeure events as defined in the Contract document</li> <li>• Vandalism outside of the Contractor’s control</li> <li>• OBOS failure caused by externally applied stress conditions outside of the Requirements of this SOW.</li> <li>• OBOS failure caused by environmental or operating conditions outside the Requirements of this SOW.</li> <li>• Failures where the Authority has Approved to waive a chargeable failure in advance.</li> </ul>

### 9.2.2 Chargeable Failures

Req. #	Requirement
619	Chargeable failures shall be any failures not specifically identified as a Non-Chargeable Failure.

### 9.3 Response and Resolution Times

Response and Resolution Time is defined as the combined time from when a failure occurs to when the issue is resolved and returned to normal operations.

Req. #	Requirement
620	The Contractor’s compliance related to response and resolution times shall be measured according to the following Priority levels (also see Appendix J - Key Performance Indicators).
621	<ul style="list-style-type: none"> <li>• Priority 1: Any OBOS malfunction or fault that has or may result in: <ul style="list-style-type: none"> <li>○ Loss of revenue</li> <li>○ Inability to receive, transmit, process or reconcile Transaction or revenue data</li> <li>○ A security breach</li> <li>○ Permanent loss of data</li> <li>○ Negative impact on the Authority or its customers</li> <li>○ The OBOS being frozen and unreachable</li> <li>○ Data being inaccurate</li> <li>○ Loss of ability to release Registration Stops</li> <li>○ Loss of redundancy</li> </ul> </li> </ul>
622	<ul style="list-style-type: none"> <li>• Priority 2: Any malfunction or fault that is not a Priority 1 and: <ul style="list-style-type: none"> <li>○ Adversely affects the full functionality of the OBOS. ,</li> <li>○ Prohibits the ability to monitor/manage the OBOS</li> </ul> </li> </ul>
623	<ul style="list-style-type: none"> <li>• Priority 3: Any malfunction or fault that is not a Priority 1 or 2 and results in: <ul style="list-style-type: none"> <li>○ Degradation in System performance but the KPIs are still being met</li> <li>○ Any reports, queries, screens or Dashboards not being presented in a timely manner</li> <li>○ Transactions are not being processed in a timely manner</li> <li>○ Any negative impact to the OBOS but is not a Priority 1, Priority 2 or Priority 4.</li> </ul> </li> </ul>
624	<ul style="list-style-type: none"> <li>• Priority 4: <ul style="list-style-type: none"> <li>○ Any issue that is cosmetic in nature</li> </ul> </li> </ul>
625	Response and Resolution times for every Maintenance event shall be recorded in the System and reported to the Authority.



Req. #	Requirement
626	The Contractor shall be responsible for initial triage and setting of the priority (automatically or manually) for each System malfunction or failure event. The Contractor shall be responsible for providing to the Authority, for their Approval, the assigned priority of each System malfunction or failure event within one hour of the Contractor becoming aware of the issue. If the Authority disagrees with the priority set by the Contractor, the Authority shall set priority level. The Contractor shall update the priority of a System malfunction or issue if it is determined that the priority changed during the resolution. The updated priority shall be subject to the Authority’s review and Approval.
627	The Contractor shall establish a process to advise the Authority, via email, of all OBOS issues in accordance with the assigned priority level as indicated in Appendix J – Key Performance Indicators. In addition to advising the Authority via email, the Contractor shall advise the Authority Project Manager, of all Priority 1 issues via telephone within the required timeframe.
628	After becoming aware of the issue, the Contractor shall resolve all issues in accordance with the assigned priority level as indicated in Appendix J – Key Performance Indicators.
629	If the Contractor determines that a Priority 1 or Priority 2 issue cannot be resolved within the required timeframe as indicated in Appendix J - Key Performance Indicators, the Contractor shall provide a resolution schedule for the Authority’s Approval within eight (8) hours of the Contractor becoming aware of the issue. The Authority’s Approval of the resolution schedule that is not in compliance with the KPIs in Appendix J does not relieve the Contractor of any associated Invoice Adjustments.
630	If the Contractor cannot resolve an issue within the required time period based on the assigned priority level, the Contractor shall resolve the issue by the time/date specified by the Approved resolution schedule. Note: The Authority’s Approval of a resolution schedule that is not in compliance with the KPIs does not relieve the Contractor of any associated invoice adjusted.
631	The Contractor shall immediately notify the Authority of the resolution of all issues.
632	The Contractor shall monitor, track and report to the Authority, response times for every Maintenance event through System reports and Dashboards. This includes the time the Contractor becomes aware of the issue, the time of resolution, and the remediation plan and schedule, if applicable.

## 10 Document Deliverable Summary

The following table summarizes all Deliverables during the Design and Implementation Phase

Design and Implementation Phase Document Deliverables	Section Ref #	Due Date
Project Management Plan	3.1.2	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days from NTP
Software Development Plan	3.1.3	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days from NTP
Quality Assurance and Quality Control Program and Plan	3.1.4	Submitted for the Authority’s review and Approval no Later than sixty (60) Calendar Days from NTP
Risk Management Plan	3.1.5	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days from NTP
Disaster Recovery Plan	3.1.6	Submitted for the Authority’s review and Approval no later than ninety (90) Calendar Days prior to the scheduled DR Test
Security Management Plan	3.1.7	Submitted for the Authority’s review and Approval no later than one hundred and twenty (120) Calendar Days from NTP
Project Kick-off Meeting/Project Communications	3.1.9	No Later than fourteen (14) Calendar Days from NTP
Monthly Implementation Progress Report	3.1.10	Submitted for the Authority’s review and Approval monthly by the tenth (10 <sup>th</sup> ) Business Day of each month for the preceding month. The initial MIPR shall cover the first full calendar month following NTP
Monthly Maintenance and Performance Progress Report	3.1.11	Submitted for the Authority’s review and Approval monthly by the tenth (10 <sup>th</sup> ) Business Day of each month for the preceding month. The initial MMRP shall cover the first full calendar month following Go-Live.
Project Schedule (initial)	3.2.1	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days from NTP
Requirement Traceability Matrix (initial)	3.4	Submitted for the Authority’s review and Approval with the first draft of the System Design Document
Training Plan	3.6	Submitted for the Authority’s review and Approval no Later than sixty (60) Calendar Days prior to the scheduled training in accordance with the Approved, Baseline Project Schedule
Training Materials and Manual	3.6	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days prior to scheduled training in accordance with the Approved, Baseline Project Schedule

Design and Implementation Phase Document Deliverables	Section Ref #	Due Date
System Design Document	4.1	Submitted to the Authority for review and Approval according to the Approved, Baseline Project Schedule
As-built SDD, RTM and OBOS Configuration Tables	4.1	Submitted for the Authority’s review and Approval no Later than sixty (60) Calendar Days after completion and Approval of the SAT
User Authorization Matrix	2.8	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test
System Configuration Table	5.5.2	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test
User Manual	5.5.1	Submitted for the Authority’s review and Approval no Later than sixty (60) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test
System Administration Manual	5.5.2	Submitted for the Authority’s review and Approval no Later than thirty (30) Calendar Days prior to the scheduled Operational Readiness Test and User Acceptance Test
Data Migration Plan	6.1	Submitted for the Authority’s review and Approval no Later than one hundred and twenty (120) Days from NTP
Transition Plan	6.2	Finalized to achieve Authority Approval no later than one hundred and twenty (120) Calendar Days prior to the scheduled Go-Live
Master Test Plan	6.3.1	Submitted for the Authority’s review and Approval no later than ninety (90) Calendar Days from NTP
Individual Test Plans and Scripts	6.3.2	Submitted for the Authority’s review and Approval no Later than sixty (60) Calendar Days prior to scheduled testing for the related test
Maintenance Plan	7.1	Submitted for the Authority’s review and Approval no Later than ninety (90) Calendar Days prior to Go-Live
Service Organization Control (SOC) 2, Type 1 Audit Report	7.4	Submitted for the Authority’s review and Approval no Later than one hundred and eighty (180) Calendar Days from successful completion and the Authority’s Approval of the OBOS Go-Live test
Succession Plan	8	Submitted for the Authority’s review and approval no Later than sixty (60) Calendar Days after Go-Live

# **OBOS RFP Exhibits**

# **Exhibit A**

## **Project Payment Milestones**

## Exhibit A – Project Payment Milestones

During the Design and Implementation Phase of the Project, the Contractor shall be paid the total amount for the Design and Implementation Phase, per the Contractor’s Price Proposal, based on the following Project payment milestones.

Payment Milestone Number	Design and Implementation Phase Project Payment Milestones	Milestone Payment %
1.	<b>Mobilization (30 days after NTP)</b>	5%
2.	<b>Approval of the following Preliminary Planning Documents</b> Project Schedule Project Management Plan Software Development Plan Quality Assurance/Quality Control Plan Risk Management Plan Master Test Plan	5%
3.	<b>Approved System Design Document (final)</b> Data Migration Plan Security Management Plan Requirements Traceability Matrix	15%
4.	<b>Successful Completion and THEA's Approval of the following Tests and Documentation</b>	
5.	External Interface Test (EIT) Plan and Scripts EIT EIT Report	2.5%
6.	Factory Acceptance Test (FAT) Plan and Scripts FAT FAT Report User Manual Transition Plan	5%
7.	Operational Readiness Test and User Acceptance Test Plan and Scripts Operational Readiness Test and User Acceptance Test System Configuration Table Operational Readiness Test and User Acceptance Test Report User Authorization Matrix Training Plan System Administration Manual Maintenance Plan	12.5%
8.	Security and Network Penetration Test Plan and Scripts Security and Network Penetration Test Security and Network Penetration Test Report	5%
9.	Disaster Recovery Test Disaster Recovery Test Plan and Scripts Disaster Recovery Test Report Training Materials and Manual	5%
10.	Go-Live Go-Live Test Plan and Scripts Go-Live Test Go-Live Test Report	10%
11.	RTCS Interface Test Plan and Scripts RTCS Interface Test	5%

	RTCS Interface Test Report As Built SDD	
12.	Succession Plan RTCS Toll Site Commissioning Test Plan and Scripts RTCS Toll Site Commissioning Test RTCS Toll Site Commissioning Test Report	5%
13.	<b>Successful Completion and Authority's Approval of the Service Organization Control (SOC) 2, Type 1 Audit Report</b> Initial SOC 2, Type 1 Audit Report	5%
14.	<b>Stage 3 - OBOS/RTCS Completion</b> State 3 - OBOS/RTCS	10%
15.	<b>System Acceptance</b> System Acceptance Test (SAT) Plan and Scripts Successful Completion and THEA's Approval SAT SAT Report	10%
TOTAL		100%

Five (5) percent of each payment milestone amount shall be retained by the Authority. Retainage shall be paid out to the Contractor upon the Authority providing the Contractor with System Acceptance.

The Contractor will only be allowed to invoice for, and the Authority will only approve and pay for, a payment milestone once the Contractor completes and has received the Authority's approval of every deliverable associated with a payment milestone as outlined above.

The milestone payment schedule described herein applies to the milestone payments the Authority will pay the Contractor for the Design and Implementation Phase of the Project. Any arrangement for payment for the Contractor's subcontractor(s) is solely between the Contractor and its subcontractors and is not a part of this Contract.



# **Exhibit B**

Price Proposal Form and Instructions

To Be Provided to Shortlisted Proposers

# Exhibit C

## List of Forms

- C-1 Proposal Affirmation Form
- C-2 List of Subcontractors Form
- C-3 Conflict of Interest Forms
  - C-3.1 Conflict of Interest Statement Form
  - C-3.2 Conflict of Interest Disclosure Form
- C-4 Company Reference Form
- C-5 Key Personnel and Qualifications Form
- C-6 Requirements Conformance Matrix (To be provided to shortlisted Proposers)
- C-7 Proposer Questions Form
- C-8 Acknowledgement of Addenda Form

# **Exhibit C, Form C-1**

## Proposal Affirmation Form

**TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY  
OPERATIONAL BACK OFFICE SYSTEM  
REQUEST FOR PROPOSALS**

**Proposal Affirmation Form**

**EXECUTION:** In compliance with this Request for Proposal, and subject to all the conditions herein, the undersigned offers and agrees to furnish any or all Services or goods upon which prices are offered, at the price(s) offered herein, within the time specified herein. By executing this offer, I certify that this offer is submitted competitively and without collusion.

Failure to execute/sign offer prior to submittal shall render Proposal invalid. Late offers are not acceptable.

PROPOSER:		
STREET ADDRESS:	P.O. BOX:	ZIP:
CITY & STATE & ZIP:	TELEPHONE NUMBER:	TOLL FREE TEL. NO:
PRINT NAME & TITLE OF PERSON SIGNING:		FAX NUMBER:
AUTHORIZED SIGNATURE:	DATE:	E-MAIL:

Offer valid for one hundred and eighty days (180) Calendar Days from the Price Proposal Due Date.

Complete this form and include it in Section 7 of the Technical Proposal as a PDF.

## **Exhibit C, Form C-2**

### List of Subcontractors Form

(Proposers to Complete MS Word Document)

Please duplicate the table below in **Microsoft Word** as necessary (i.e. if proposing more than three (3) Subcontractors) to provide the requested information for each proposed Subcontractor. Complete this form and include it in Section 7 of the Technical Proposal.

Subcontractor #1

	<b>SUBCONTRACTOR</b>
Legal Name of Company	
Company’s FEID Number	
Company Contact Name	
Company Address	
City, State, Zip Code	
Company Telephone No.	
Company E-mail address	
Legal Name of Principal(s)	
Address of Principal(s)	
City, State, Zip Code	
Telephone No. of Principal(s)	
E-mail address of Principal(s)	
Corporate Number (if applicable)	
License Number (if applicable)	
Status of License (if applicable)	
Work to be Performed	
Expected Percentage of Total Work	

## Subcontractor #2

	<b>SUBCONTRACTOR</b>
Legal Name of Company	
Company's FEID Number	
Company Contact Name	
Company Address	
City, State, Zip Code	
Company Telephone No.	
Company E-mail address	
Legal Name of Principal(s)	
Address of Principal(s)	
City, State, Zip Code	
Telephone No. of Principal(s)	
E-mail address of Principal(s)	
Corporate Number (if applicable)	
License Number (if applicable)	
Status of License (if applicable)	
Work to be Performed	
Expected Percentage of Total Work	



Subcontractor #3

	<b>SUBCONTRACTOR</b>
Legal Name of Company	
Company's FEID Number	
Company Contact Name	
Company Address	
City, State, Zip Code	
Company Telephone No.	
Company E-mail address	
Legal Name of Principal(s)	
Address of Principal(s)	
City, State, Zip Code	
Telephone No. of Principal(s)	
E-mail address of Principal(s)	
Corporate Number (if applicable)	
License Number (if applicable)	
Status of License (if applicable)	
Work to be Performed	
Expected Percentage of Total Work	

# **Exhibit C, Form C-3.1**

## **Conflict of Interest Statement Form**

**CONFLICT OF INTEREST STATEMENT**

Check one of the boxes below:

- To the best of our knowledge, the undersigned Proposer has no potential conflict of interest due to any other clients, contracts, or property interest for this Solicitation and Project.

**OR**

- The undersigned Proposer, by attachment to this form, submits information which **may** be a potential conflict of interest due to other clients, contracts or property interest for this Solicitation and Project.

**Note:** Use **Exhibit C, Form C-3.2, Conflict of Interest Disclosure** to disclose any potential conflicts of interest.

PROPOSER:

By: \_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Printed Name of Signer

\_\_\_\_\_  
Title of Signer

\_\_\_\_\_  
Date Signed

# **Exhibit C, Form C-3.2**

## **Conflict of Interest Disclosure Form**

**(Proposers to Complete MS Word Document)**

### Conflict of Interest Disclosure Form

Within the form provided below, the Proposer shall state if it represents clients, or partners with Consultants, that may present conflicts or potential conflicts with representation of the Authority. Proposers shall provide a list of any potential conflicts by description. Proposers need not identify a particular client. If conflicts are listed, the Proposer shall address how these conflicts may be resolved.

**Note:** Within the “Description of Potential Conflict” column below, please include a project title where the potential conflict exists, a description of the potential conflict of interest, what role they the Proposer is anticipated to fill (e.g. Prime vs Subcontractor) and a brief description of the scope of work they are planned to perform. Also provide a proposed resolution to the potential conflict for the Authority’s consideration in the “Proposed Resolution and/or Mitigation to Potential Conflict.”

Please add rows to this form as necessary in **Microsoft Word** to provide the requested information. Complete this form and include it in Section D, Conflict of Interest of the ELOR package in one (1) combined PDF with Conflict of Interest Statement page, Exhibit C, Form C-3.1.

Conflict of Interest Disclosure		Tampa Hillsborough Expressway Authority (THEA)		
#	Potential Conflict with Agency/Operator? (Y/N)	Potential Conflict with Consulting Firm? (Y/N)	Description of Potential Conflict	Proposed Resolution and/or Mitigation to Potential Conflict
1				
2				
3				

# **Exhibit C, Form C-4**

## **Company Reference Form**

**(Proposers to Complete MS Word Document)**

Proposer shall use this form to reference three (3) projects of similar scope, complexity, and scale as that outlined in the RFP. One of the three (3) referenced projects must have been implemented within the last five (5) years and be under active operations and Maintenance by the Proposer. Each reference provided may be contacted by the Authority.

Please copy this form in **Microsoft Word** as necessary to provide the requested information to comply with the requirements outlined in Section **1.18.4.3 ELOR Package Section 3 – Staffing, Experience and Approach, B. Proposer Experience and Qualifications** of the RFP. Submit the form as a PDF with the ELOR package according to the instructions in the RFP.

**Proposer’s Name:** \_\_\_\_\_

Prime                       Subcontractor

Reference Company/Agency Name:																									
City:	State:																								
Project Manager/Owner Reference:	Project Manager/Owner Reference Contact Information (Phone Number and/or E-mail Address):																								
Start and End Dates of the Project:	Cost of the Project:																								
Number and Cost of Change Orders (to date):																									
<b>Alternate Reference*:</b>																									
Phone Number:	E-mail:																								
Alternate Reference Role on Referenced Project:																									
<p><b>Operational Back Office System (OBOS):</b></p> <p>a. Please place a mark next to each scope item the referenced project included.</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> System Design</td> <td><input type="checkbox"/> Cloud-based Architecture and Development</td> <td><input type="checkbox"/> GUI and Data Visualization</td> </tr> <tr> <td><input type="checkbox"/> Implementation</td> <td><input type="checkbox"/> Legacy Data Conversion and Migration</td> <td><input type="checkbox"/> Reporting &amp; Dashboards</td> </tr> <tr> <td><input type="checkbox"/> Modular Development</td> <td><input type="checkbox"/> API and Software Development</td> <td><input type="checkbox"/> Integration with Roadside Systems</td> </tr> <tr> <td><input type="checkbox"/> Operations and Maintenance</td> <td><input type="checkbox"/> Real-time Transaction processing</td> <td><input type="checkbox"/> Integrated with Collection Agency Systems Database Optimization, Replication and Storage</td> </tr> <tr> <td><input type="checkbox"/> Cloud-based Architecture</td> <td><input type="checkbox"/> Scalability, Capacity and Performance</td> <td><input type="checkbox"/> Disaster Recovery</td> </tr> <tr> <td><input type="checkbox"/> On Premises Architecture</td> <td><input type="checkbox"/> System Security, VPN, Dual Authentication</td> <td><input type="checkbox"/> Integrated with Commercial Back Office Systems</td> </tr> <tr> <td><input type="checkbox"/> Infrastructure-as-a-Service</td> <td><input type="checkbox"/> Developed and managed real-time data exchange interfaces to external entities</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Hybrid (on-premise and cloud mixed) Architecture</td> <td></td> <td></td> </tr> </table>		<input type="checkbox"/> System Design	<input type="checkbox"/> Cloud-based Architecture and Development	<input type="checkbox"/> GUI and Data Visualization	<input type="checkbox"/> Implementation	<input type="checkbox"/> Legacy Data Conversion and Migration	<input type="checkbox"/> Reporting & Dashboards	<input type="checkbox"/> Modular Development	<input type="checkbox"/> API and Software Development	<input type="checkbox"/> Integration with Roadside Systems	<input type="checkbox"/> Operations and Maintenance	<input type="checkbox"/> Real-time Transaction processing	<input type="checkbox"/> Integrated with Collection Agency Systems Database Optimization, Replication and Storage	<input type="checkbox"/> Cloud-based Architecture	<input type="checkbox"/> Scalability, Capacity and Performance	<input type="checkbox"/> Disaster Recovery	<input type="checkbox"/> On Premises Architecture	<input type="checkbox"/> System Security, VPN, Dual Authentication	<input type="checkbox"/> Integrated with Commercial Back Office Systems	<input type="checkbox"/> Infrastructure-as-a-Service	<input type="checkbox"/> Developed and managed real-time data exchange interfaces to external entities		<input type="checkbox"/> Hybrid (on-premise and cloud mixed) Architecture		
<input type="checkbox"/> System Design	<input type="checkbox"/> Cloud-based Architecture and Development	<input type="checkbox"/> GUI and Data Visualization																							
<input type="checkbox"/> Implementation	<input type="checkbox"/> Legacy Data Conversion and Migration	<input type="checkbox"/> Reporting & Dashboards																							
<input type="checkbox"/> Modular Development	<input type="checkbox"/> API and Software Development	<input type="checkbox"/> Integration with Roadside Systems																							
<input type="checkbox"/> Operations and Maintenance	<input type="checkbox"/> Real-time Transaction processing	<input type="checkbox"/> Integrated with Collection Agency Systems Database Optimization, Replication and Storage																							
<input type="checkbox"/> Cloud-based Architecture	<input type="checkbox"/> Scalability, Capacity and Performance	<input type="checkbox"/> Disaster Recovery																							
<input type="checkbox"/> On Premises Architecture	<input type="checkbox"/> System Security, VPN, Dual Authentication	<input type="checkbox"/> Integrated with Commercial Back Office Systems																							
<input type="checkbox"/> Infrastructure-as-a-Service	<input type="checkbox"/> Developed and managed real-time data exchange interfaces to external entities																								
<input type="checkbox"/> Hybrid (on-premise and cloud mixed) Architecture																									

*Please provide a detailed explanation for each item below:*

- b. For the referenced project, described its relevance to the Authority’s Operational Back Office System Project regarding successfully designing, developing, and implementing and maintaining a transaction processing system of similar scope.

**Note:** The system solution described must be able to process financial transactions, and it must support transaction volumes similar to, or in excess of, those listed in Section 4, Scope of Work and Requirements, Appendix K. The Proposer shall have maintained the system for at least one (1) year as of the release date for this RFP.

- c. For the referenced project, describe any required data migration tasks. Also describe your approach to planning the migration of legacy system data into a solution, and your experience in implementing your migration plan (e.g. migrating, testing, and implanting the new system inclusive of both legacy and new system data).

- d. For the referenced project, describe the number and types of real-time data exchange interfaces to internal and external entities, and the process undertaken and coordination efforts needed to develop, implement and maintain those interfaces:



e. For the referenced project, describe your approach to schedule/deliverable management, and how your team performed with regard to meeting schedule milestone delivery dates for design, development, data migration, testing and implementation of the transaction processing system of similar scope:

f. For the referenced project, describe any key performance indicators you had to meet, and your approach to ensuring your system met those requirements:

g. For the referenced project, describe the type of architecture used (e.g. cloud, on-premises or hybrid) for the referenced project, and why you chose that solution:

## **Exhibit C, Form C-5**

### **Key Personnel and Qualifications Form**

Proposer shall complete this form per the instructions below and include it within Section 7 of the Technical Proposal as a PDF. To clarify the use of the form, an example, highlighted in orange has been provided below.

1. Place a **Y** (Yes) or **N** (No) in column C to denote whether proposed Key Personnel (column A) meet the Authority’s minimum qualification requirements (column B).
2. Mark the appropriate box(es) in column D with an **X** to denote which Key Personnel position will support the Design and Implementation Phase and/or the Operations and Maintenance Phase throughout the term of the Contract.
3. Use column E to specify the percent dedication each Key Personnel position will be committed to the Project throughout the term of the Contract.

A	B	C	D		E
Key Personnel Position	Qualifications	Proposed Personnel Complies with Minimum Qualification Requirements? (Y/N)	Responsibilities		Dedication %
			Design and Implementation Phase	Operations and Maintenance Phase	
<b>EXAMPLE</b>					
Contract Project Principal	<p><i>Shall be responsible for the oversight of the Project Manager and Quality Assurance Manager and a point of contact for any escalated Project issues that cannot be resolved by the Project Manager and/or Quality Assurance Manager. Ultimate responsibility for delivery of Project.</i></p> <p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>Ten (10) years of experience in transaction processing, payment processing or a similar industry.</li> <li>Five (5) years of senior management responsibility for projects of similar scope.</li> </ul>	Y	X	X	<p>25% during the Design and Implementation Phase.</p> <p>5% During the Operations and Maintenance Phase</p>

<b>Contract Project Principal</b>	<p><i>Shall be responsible for the oversight of the Project Manager and Quality Assurance Manager and a point of contact for any escalated Project issues that cannot be resolved by the Project Manager and/or Quality Assurance Manager. Ultimate responsibility for delivery of Project.</i></p>				
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Ten (10) years of experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of senior management responsibility for projects of similar scope.</li> </ul>				
<b>Contractor Project Manager</b>	<p><i>Shall be responsible for managing day-to-day Work activities, the overall execution and delivery of the Project, and be the contact person for all Project matters for the Project team and the Authority.</i></p>				
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Seven (7) years of experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of experience as a project manager.</li> <li>• Project Manager for at least one transaction processing system of similar scope, including the Design, implementation, operation, and Maintenance.</li> <li>• Direct experience in the proposed architecture.</li> </ul>				
	<p><b>Desired Certification:</b></p> <ul style="list-style-type: none"> <li>• Certification in Project Management or PMP</li> </ul>				

<b>Quality Assurance Manager</b>	<p><i>Shall be responsible for ensuring consistent Quality Assurance and Quality Control throughout the duration of the Contract.</i></p> <p><i>Note: The Quality Assurance Manager and the Contract Project Manager shall not be the same individual.</i></p>				
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience as a Quality Assurance Manager, implementing best practices for Quality Control and Quality Assurance for Projects of similar scope, including IT and database delivery.</li> </ul>				
<b>Lead Software Developer</b>	<p><i>Shall be responsible for leading the development of the OBOS technology, systems, interfaces, and APIs.</i></p>				
	<p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Ten (10) years of software development experience in transaction processing, payment processing or a similar industry.</li> <li>• Five (5) years of experience as a software development manager.</li> <li>• Served as the Software Development Manager for at least one transaction processing system, or system of similar scope, including the Design, implementation, and Maintenance.</li> <li>• Experienced in the proposed architecture.</li> </ul>				

<p><b>System Architect</b></p>	<p><i>Shall be responsible for the structure of the OBOS, the use of 3rd party resources, Disaster Recovery, data retention, data backup, modularity, messaging, encapsulation, and abstraction.</i></p> <p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Seven (7) years of experience with system Design and architecture.</li> <li>• Five (5) years of experience with security for systems in transaction processing, payment processing or a similar industry.</li> <li>• Direct project experience architecting a transaction processing system, or system of similar scope.</li> <li>• Experienced in the proposed architecture.</li> </ul>				
<p><b>Test Manager</b></p>	<p><i>Shall be responsible for all aspects of internal and Formal Testing for the Project from the development of Test Plans and Scripts; conduct of internal, dry-run and Formal Testing efforts; and recording and reporting of test results. Assures that all aspects of Requirements and Design are covered in testing.</i></p> <p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience with testing, including both hardware and software.</li> <li>• Has led the planning and execution of testing for at least two (2) projects of similar size and scope and at least one (1) project that transitioned from an existing system to a new system.</li> </ul>				
<p><b>Maintenance Manager</b></p>	<p><i>Shall be responsible for managing the on-going operation and Maintenance of the OBOS, including Maintenance resources, System and performance monitoring, preventative Maintenance, client coordination, issue resolution, and system security.</i></p> <p><b>Required Minimum Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Five (5) years of experience operating and maintaining a system of similar scope.</li> </ul>				

# **Exhibit C, Form C-6**

## Requirements Conformance Matrix

To Be Provided to Shortlisted Proposers

# **Exhibit C, Form C-7**

## Proposer Questions Form

(Proposers to Complete MS Word Document)



### Proposer Questions Form

The Authority will provide two (2) separate question and answer periods related to this procurement. To be considered, such requests must be received no later than the date and time stated for the **Deadline for all Proposers to Submit Questions to the Authority** referenced in **Section 1.2.3, Current Schedule of Events**. The Authority shall not respond to any Proposer questions after the deadline has passed.

Proposers shall use this form to submit requests for interpretation, clarification or questions about the procurement process, the Procurement Documents or the Project. Please add rows to this form as necessary in **Microsoft Word** and submit the form to the Authority as a PDF.

Once complete, submit for C-7 to **Procurement@tampa-xway.com** addressed to the Authority’s Contracts and Procurement Manager.

<b>Proposer Questions</b>			Proposer Name:  _____		Date of Submission:  _____
#	RFP Page	RFP Section	RFP Section Description	Proposer Question	Authority Response
1					
2					
3					

## **Exhibit C, Form C-8**

Acknowledgement of Addenda Form

**ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA**

If it becomes necessary to revise any part of this RFP, any Addenda or other notifications regarding the RFP will be posted to the Authority’s website at <https://www.tampa-xway.com/procurement/#> and on DemandStar at <https://network.demandstar.com/>. Proposers are responsible for monitoring the Authority’s website and Demandstar throughout the entire procurement process. Include this completed form both within the ELOR package and Section 7 of the Technical Proposal as PDFs according to the RFP instructions.

Were Addenda issued on this Solicitation?

- Yes
- No

Were Letter of Clarification issued on this Solicitation?

- Yes
- No

I (We) hereby acknowledge receipt of the following Addendum/Addenda issued in reference to this solicitation by listing the Addenda by number, date and signing the form:

Addendum	_____	Date:	_____
Addendum	_____	Date:	_____
Addendum	_____	Date:	_____
Addendum	_____	Date:	_____
Letter of Clarification	_____	Date:	_____
Letter of Clarification	_____	Date:	_____
Letter of Clarification	_____	Date:	_____
Letter of Clarification	_____	Date:	_____

PROPOSER:

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

\_\_\_\_\_  
(Printed Name of Signer)

\_\_\_\_\_  
(Title of Signer)

\_\_\_\_\_  
(Date Signed)

## **Exhibit D**

Insurance Requirements, Coverages, and Limits

**Exhibit D**

**Operational Back Office System RFP/Authority RFP No. T-2325**

**INSURANCE REQUIREMENTS, COVERAGES, and LIMITS**

**for**

**Tampa-Hillsborough County Expressway Authority**

Contractor, hereinafter referred to as “Insured” conducting business with the Tampa Hillsborough County Expressway, “Authority” is required to maintain the following insurance coverage and provide insurance certification to the Authority as detailed below.

**A. INSURANCE REQUIREMENTS:**

- 1) All insurance shall be from responsible insurance companies eligible to do business in the State of Florida and having an AM Best rating of A- or better and a financial size category of VII or better. Utilization of non-rated companies or companies with AM Best ratings lower than A- or a financial size category lower than VII may be approved on a case by case basis. If the insurer does not meet these requirements, the Authority retains the right to approve or disapprove the use of the insurer.
- 2) INSURED’S liability policies, other than the Workers' Compensation and Professional Liability, shall provide that the Authority, its officials, officers and employees are additional named insureds as to the operations of the INSURED under the agreement.
- 3) INSURED’S liability policies, other than the Workers' Compensation and Professional Liability, shall provide the "Severability of Interest" provision (a/k/a "Separation of Insureds" provision).
- 4) The INSURED’S Certificate of Insurance(s) shall provide the Authority as an additional certificate holder for all policies issued.
- 5) The INSURED’S Certificate of Insurance(s) shall state the description of the operations, i.e., “Name of Agreement” between the Authority and “Name of Insured” and shall state the Contract Number assigned for the agreement between the Authority and the INSURED.
- 6) The INSURED shall deliver to the Authority, within thirty (30) days from the receipt of a Notice of Intent to Award the agreement, properly executed Certificate(s) of Insurance on insurance industry standard certificate of insurance form(s) (example: ACORD form) setting forth the insurance coverages and limits required herein. All of the required insurance coverages shall be issued as required by law and shall be endorsed, where necessary, to comply with the minimum requirements contained herein.
- 7) Except as otherwise specified in the agreement, the insurance will commence on or prior to the effective date of the agreement and will be maintained in force throughout the duration of the agreement. Three years’ completed operations coverage may be required to be maintained on specific commercial general liability policies and/or professional liability policies effective on the date of substantial completion or the termination of the agreement, whichever is earlier.
- 8) Aggregate Policy Limits on policies required of INSURED shall apply exclusively for the agreement.
- 9) INSURED authorizes the Authority to verify its insurance information with its insurance agents, brokers, surety, and insurance carriers. At the Authority’s request, INSURED shall provide

copies of the policies at no cost to the Authority, subject to redaction by the INSURED of any proprietary information.

- 10) All insurance coverages of the INSURED shall be primary to any insurance or self-insurance programs carried by the Authority; and any the Authority insurance or coverages shall not be contributory to INSURED'S insurance requirements in the agreement.
- 11) The insurance coverages and limits required of the INSURED under the agreement are designed to meet the minimum requirements of the Authority. They are not designed as a recommended insurance program for the INSURED. The INSURED alone shall be responsible for the sufficiency of its own insurance program.
- 12) All policies of insurance required herein will be specifically endorsed to require the insurer provide the Authority with thirty (30) days notice prior to any cancellation, intent not to renew any policy and/or any change that will reduce the insurance coverages required in the agreement, except for the application of the Aggregate Limits Provisions.

The endorsement will specify that such notice will be sent to:

Tampa-Hillsborough County Expressway, (Authority)  
Contracts and Procurement Manager  
1104 East Twiggs St, Suite 300  
Tampa, FL 33602

- 13) The Authority accepts no responsibility for determining whether the INSURED'S insurance is in full compliance with the insurance required by the agreement. Neither the approval by the Authority nor the failure to disapprove the insurance furnished by the INSURED will relieve the INSURED of their full responsibility to provide the insurance required by the agreement.
- 14) If the INSURED fails to provide or maintain the insurance coverages required in the agreement, the Authority may terminate or suspend this AGREEMENT, or, at the Authority's sole discretion, may obtain such coverages and invoice the INSURED and include a 15% administrative cost. If not paid within forty five (45) days, the amount will be deducted from INSURED'S invoice. The decision of the Authority to purchase such insurance coverages shall in no way be construed as a waiver of its rights under the agreement.
- 15) INSURED shall fully comply with the insurance requirements of the agreement unless excused in writing by the Authority. Any deductible applicable to any claim shall be the responsibility of the INSURED.
- 16) Any liability insurance aggregate limits are to be confirmed in writing by the respective insurance company that to their knowledge, as of the date of the agreement, there are no pending claims or legal actions against the INSURED, which if resolved in favor of the claimant would impair the insurance company's ability to cover the minimum insurance limits stated herein.
- 17) Current Insurance Service Office (ISO) policies, forms, and endorsements or broader shall be used where applicable. Notwithstanding the foregoing, the wording of all policies, forms, and endorsements must be acceptable to the Authority without restrictive endorsement.
- 18) The INSURED will not commence work, use or occupy the Authority premises in connection with the agreement until the required insurance is in force, preliminary evidence of insurance acceptable to the Authority has been provided to the Authority and the Authority has granted permission to the INSURED to commence work or use or occupy the premises in connection with the agreement.

- 19) Upon request, the INSURED shall promptly make available a certified, true and exact copy of the insurance policy and endorsements issued to the policy and any renewal thereof for the Authority's review and inspection. In the event of cancellation or non-renewal of this insurance, the INSURED agrees to purchase the maximum "extended claims reporting period" permitted under the policy within the time allowed, unless replacement coverage is obtained with retroactive coverage applicable as of the date the INSURED services started under the agreement.
- 20) All insurance minimum coverage limits extend to any subcontractor and the Prime INSURED is responsible for all subcontractors.

**B. INSURANCE COVERAGES and LIMITS:**

For the term of the agreement (including any extensions thereof), the INSURED shall procure and maintain insurances of the types and limits and duration specified herein.

- 1) **Workers' Compensation and Employers' Liability Insurance** - The minimum limits of Worker's Compensation/Employer's Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

Workers' Compensation	Florida Statutory Requirements
Employers' Liability	
Each Accident	\$1,000,000
Disease – Policy Limit	\$1,000,000
Disease - Each Employee	\$1,000,000

- 2) **Commercial General Liability Insurance** - The minimum limits of Commercial General Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) are:

General Aggregate	\$1,000,000
Per Person	\$1,000,000
Each Occurrence	\$2,000,000
Personal Injury	\$1,000,000
Property Damage	\$1,000,000
Products & Completed Operations	\$1,000,000

The General Aggregate Limit must be specifically applicable to the agreement between the Authority and the INSURED.

The Certificate must reflect whether the policy is "claims made" or "occurrence".

**Products & Completed Operations coverage for the entire period of the statute of repose under Chapter 95, Florida Statutes, is required.**

- 3) **Business Automobile Liability Insurance** - The minimum limits of Business Automobile Liability Insurance (inclusive of any amount provided by an umbrella or excess policy) covering

ownership, maintenance, use, loading and unloading of all its owned, non-owned, leased or hired vehicles are:

Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	\$1,000,000
Bodily Injury & Property Damage Combined	\$1,000,000

- 4) **Umbrella Liability Insurance or Excess Liability Insurance** – Umbrella Liability Insurance or Excess Liability Insurance must provide the same coverages as required for the underlying Commercial General, Business Automobile and Employers' Liability Coverages with no gaps in continuity of coverages or limits.

Bodily Injury & Property Damage Combined	
Each Occurrence	\$2,000,000
Aggregate (specific to the agreement)	\$2,000,000
Aggregate (not specific to the agreement)	\$1,000,000

- 5) **Professional Liability Insurance, also known as “Errors and Omissions”**. The minimum limits of Professional Liability Insurance covering all work of the INSURED without any exclusions unless approved in writing by the Authority are:

Professional Liability	
Each Claim	\$5,000,000
Aggregate	\$5,000,000

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than \$100,000 unless approved by the Authority in writing. This coverage shall be maintained by the INSURED for a period of not less than three (3) years from the date the INSURED has completed and the Authority has accepted the services under the agreement. If written on a on a claim-made basis, coverage shall apply for the entire period of repose under Chapter 95, Florida Statutes.

- 6) **Network Security (Cyber) Liability Insurance**. The minimum limits of network security (cyber liability) liability covering all work under the agreement without any exclusions unless approved in writing by the Authority are:

Network Security Liability	
Each Claim	\$5,000,000
Aggregate	\$5,000,000

Covering liability arising from: hostile action or a threat of hostile action; unauthorized access/unauthorized use of data or Systems (as defined in the agreement); computer viruses and any other type of malicious or damaging code; dishonest, fraudulent, malicious, or criminal use of a computer system; denial of service for which the Insured is responsible; privacy violations; information theft; damage to or destruction of electronic information; intentional and/or unintentional release of private information; alteration of electronic information; extortion; and network security.



Such insurance shall be maintained in force at all times during the term of the agreement (including any extensions thereof) and for the entire period of repose under Chapter 95, Florida Statutes. . Additionally, if a sub-limit applies to any elements of coverage, the policy endorsement evidencing the coverage above must specify the coverage section and the amount of the sub-limit.

- 7) **Technology Errors & Omissions.** The minimum limits of technology errors and omissions liability covering all work under the agreement without any exclusions unless approved in writing by the Authority are:

Technology Errors & Omissions Liability

Each Claim	\$5,000,000
Aggregate	\$5,000,000

Covering liability for all professional products and Services performed, including liabilities arising from acts, errors or omissions in rendering computer or information technology Services including (1) Systems analysis (2) Systems programming (3) data processing (4) Systems integration and testing (5) outsourcing development and Design (6) Systems Design, consulting, development and modification (7) training Services relating to computer Software or Hardware (8) management, repair and Maintenance of computer products, networks and Systems (9) marketing, selling, servicing, distributing, installing and maintaining computer Hardware or Software (10) data entry, modification, verification, maintenance, storage, retrieval or preparation of data output.

This insurance shall provide coverage for Software copyright liability and contractual liability. Such Technology E&O insurance coverage may be met through or combined with the Professional Liability Insurance referenced in item #5 above; however, if combined then the coverage requirement for Technology E & O insurance shall be equal or greater than the combined aggregate.

Any deductible applicable to any claim shall be the responsibility of the INSURED and shall not be greater than \$100,000 unless approved by the Authority in writing. This coverage shall be maintained by the INSURED for the entire period of repose under Chapter 95, Florida Statutes.

**[END OF INSURANCE REQUIREMENTS, COVERAGES, AND LIMITS]**

# **Exhibit E**

## **Performance and Payment Bond Forms**

**For Clerk of the Court  
Recording Purposes**

Return to: Contracts Manager  
Tampa-Hillsborough Expressway Authority  
1104 East Twiggs St., Suite 300  
Tampa, FL 33602  
BOND NO: \_\_\_\_\_

**PERFORMANCE BOND – DESIGN AND IMPLEMENTATION PHASE**

BY THIS BOND, We, \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Principal**, and \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Surety**, located at \_\_\_\_\_ are bound to the **TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the Contract dated \_\_\_\_\_, 20\_\_\_\_ between Principal and Owner for the \_\_\_\_\_ at the Tampa Hillsborough County Expressway Authority, Request for Proposals (RFP) Contract No. \_T-2325\_\_\_\_, at the times and in the manner prescribed in the contract, including the correction of any defective work, the Contract being made a part of this bond by reference, and
2. Pays Owner all loss, damages including delay damages, including but not limited to liquidated damages, costs, and attorney's fees, including appellate proceedings, that Owner sustains due to the conduct of the Principal under the Contract including but not limited to, breach or default by Principal under the Contract; or the negligence, patent infringement, or intentionally wrongful conduct on the part of the Principal, its officers, agents, employees, or any other person or entity from whom the Principal is responsible; and
3. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract for all Work associated with the Design and Implementation Phase of the Operational Back Office System (OBOS), and any applicable warranty period,

then this bond is void; otherwise it remains in full force.

4. In the event that the Principal shall fail to perform any of the terms, covenants and conditions of the Contract during the period in which this Performance Bond is In effect, the Surety shall remain liable to the Owner for all such loss or damage (including reasonable attorneys' fees and other legal costs) resulting from any failure to perform up to the amount of the Penal Sum.
5. In the event that the Surety fails to fulfill its obligations under this Performance Bond, then the Surety shall also indemnify and save the owner harmless from any and all loss, damage, cost and expense, Including reasonable attorneys' fees and other legal costs for all trial and appellate proceedings resulting directly or indirectly from the Surety's failure to fulfill its obligations hereunder. This paragraph shall survive the termination or cancellation of this Performance Bond. The obligations set forth in this paragraph shall not be limited by the Penal Sum of this Bond.

6. The Surety's obligations hereunder shall be direct and Immediate and not conditional or contingent upon Owner's pursuit of its remedies against Principal, and shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Owner and Principal without the Surety's knowledge or consent, (ii) waivers of any default under the Agreement or the Contract granted by Owner to Principal without the Surety's consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding Initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Owner or Principal that would, In the absence of this clause, result In the release or discharge by operation of law of the Surety from its obligations hereunder.

The Surety, for value received, agrees that any changes, extensions of time, or additions to the Terms of the Contract Documents, and neither compliance nor noncompliance with any formalities connected with the Contract or the changes shall not affect Surety's obligation under this bond. Surety hereby waives notice of any such changes. Further, Principal and Surety acknowledge that the Penal Sum of this bond shall increase or decrease In accordance with approved changes or other modifications to the Contract.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

DATED ON: \_\_\_\_\_, 20\_\_\_\_\_.

Name of Principal (Contractor):

Name of Surety:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Attorney in Fact

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone No. \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Fax No. \_\_\_\_\_

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and "Power of Attorney" from Surety)

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(Printed Name of Notary)

\_\_\_\_\_  
(Serial Number, if any)

This form complies with  
Section 255.05, Florida Statutes

**CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER**

TO: TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: \_\_\_\_\_

PROPOSER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

AMOUNT OF BOND: \_\_\_\_\_

SURETY BOND INSURER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Before me, the undersigned authority, personally appeared, \_\_\_\_\_ on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

\_\_\_\_\_  
Signature of Officer of Surety Insurer

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.] \_\_\_\_\_

Notary Public

Printed Name of Notary

My Commission Expires:

\_\_\_\_\_

(Serial Number, if any)

**For Clerk of the Court  
Recording Purposes**

Return to: Contracts Manager  
Tampa Hillsborough Expressway Authority  
1104 East Twiggs St., Suite 300  
Tampa, FL 33602

BOND NO: \_\_\_\_\_

PAYMENT BOND – DESIGN AND IMPLEMENTATION PHASE

BY THIS BOND, We, \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Principal**, and \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Surety**, located at \_\_\_\_\_ are bound to the **TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Promptly makes payment to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract dated \_\_\_\_\_, 20 \_\_\_\_ between Principal and Owner for the \_\_\_\_\_ (RFP No. \_\_\_\_\_), the Contract being made a part of this bond by reference; and
2. Pays Owner all loss, damages expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the Contract related to payment for such labor, materials, or supplies furnished to the Principal, then this bond is void; otherwise it remains in full force.

The Surety's obligations hereunder shall be direct and immediate and not conditional or contingent upon Owner's pursuit of its remedies against Principal, and shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Owner and Principal without the Surety's knowledge or consent, (ii) waivers of any default under the Contract granted by Owner to Principal without the Surety's consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding Initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Owner or Principal that would, In the absence of this clause, result In the release or discharge by operation of law of the Surety from its obligations hereunder.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this bond. Further, Principal and Surety acknowledge that the Penal Sum of this bond shall increase or decrease In accordance with approved changes or other modifications to the Contract.

Certain claimants seeking the protection of this Bond must timely comply with the strict requirements set forth in Section 255.05, Florida Statutes, and as otherwise provided by law.

DATED ON: \_\_\_\_\_, 20\_\_\_\_\_.

Name of Principal (Contractor):

Name of Surety:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Attorney in Fact

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone No. \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Fax No. \_\_\_\_\_

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and "Power of Attorney" from Surety)

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(Printed Name of Notary)

\_\_\_\_\_  
(Serial Number, if any)

This form complies with  
Section 255.05, Florida Statutes



**CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER**

TO: TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: \_\_\_\_\_

PROPOSER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

AMOUNT OF BOND: \_\_\_\_\_

SURETY BOND INSURER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Before me, the undersigned authority, personally appeared, \_\_\_\_\_ on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

\_\_\_\_\_  
Signature of Officer of Surety Insurer

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.] \_\_\_\_\_

Notary Public

\_\_\_\_\_  
Printed Name of Notary

My Commission Expires:

\_\_\_\_\_

(Serial Number, if any)

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## For Clerk of the Court

### Recording Purposes

Return to: Contracts Manager  
 Tampa-Hillsborough Expressway Authority  
 1104 East Twiggs St., Suite 300  
 Tampa, FL 33602  
 BOND NO: \_\_\_\_\_

#### PERFORMANCE BOND – OPERATIONS AND MAINTENANCE PHASE: YEAR 1

WHEREAS, BY THIS BOND, We, \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Principal**, and \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Surety**, located at \_\_\_\_\_ are bound to the **TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

WHEREAS, the Principal is required by the Contract to provide the Owner with a Performance Bond for each year of the Operations and Maintenance Phase of the Contract and the Principal is providing this Performance Bond for the services to be rendered by the Principal during the period beginning with the effective date of the Operations and Maintenance Phase of the Contract and ending upon the effective date of Year 2, as further described in the Contract,

WHEREAS, the term of this Bond may be continued from year to year by the issuance of a continuation certificate executed by the Surety, and if the term is continued, the penal sum shall be adjusted to equal the Contract price for the applicable year, as further described in the Contract.

NOW THEREFORE, THE CONDITION OF THIS BOND is that if Principal:

1. Performs the Contract dated \_\_\_\_\_, 20\_\_\_\_ between Principal and Owner for the \_\_\_\_\_ at the Tampa Hillsborough County Expressway Authority, Request for Proposals (RFP) Contract No. \_\_\_\_\_, at the times and in the manner prescribed in the Contract, the contract being made a part of this bond by reference, and
2. Pays Owner all loss, damages including delay damages, including but not limited to liquidated damages, costs, and attorney's fees, including appellate proceedings, that Owner sustains due to the conduct of the Principal under the Contract, including but not limited to, breach or default by Principal under the Contract; or the negligence, patent infringement, or intentionally wrongful conduct on the part of the Principal, its officers, agents, employees, or any other person or entity form whom the Principal is responsible; and
3. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract for all Work associated with the Operations and Maintenance Phase of the Operational Back Office System (OBOS), and any applicable warranty period, then this bond is void; otherwise it remains in full force.

In the event that the Principal shall fail to perform any of the terms, covenants and conditions of the Contract during the period in which this Performance Bond is In effect, the Surety shall remain liable to the Owner for all such loss or damage (including reasonable attorneys' fees and other legal costs) resulting from any failure to perform up to the amount of the Penal Sum.

In the event that the Surety fails to fulfill its obligations under this Performance Bond, then the Surety shall also indemnify and save the owner harmless from any and all loss, damage, cost and expense, Including reasonable attorneys' fees and other legal costs for all trial and appellate proceedings resulting directly or indirectly from the Surety's failure to fulfill its obligations hereunder. This paragraph shall survive the termination or cancellation of this Performance Bond. The obligations set forth in this paragraph shall not be limited by the Penal Sum of this Bond.

The Surety's obligations hereunder shall be direct and Immediate and not conditional or contingent upon Owner's pursuit of its remedies against Principal, and shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Owner and Principal without the Surety's knowledge or consent, (ii) waivers of any default under the Agreement or the Contract granted by Owner to Principal without the Surety's consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding Initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Owner or Principal that would, In the absence of this clause, result In the release or discharge by operation of law of the Surety from its obligations hereunder.

The Surety, for value received, agrees that any changes, extensions of time, or additions to the Terms of the Contract Documents, and neither compliance nor noncompliance with any formalities connected with the contract or the changes shall not affect Surety's obligation under this bond. Surety hereby waives notice of any such changes. Further, Principal and Surety acknowledge that the Penal Sum of this bond shall increase or decrease In accordance with approved changes or other modifications to the Contract.

Neither non-renewal by the Surety, nor the failure or inability of the Principal to file a replacement bond in the event the Surety exercises its right to not renew this Bond, shall itself constitute a loss to the Owner recoverable under this bond or any extension thereof.

DATED ON: \_\_\_\_\_, 20\_\_\_\_\_.

Name of Principal (Contractor):

Name of Surety:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Attorney in Fact

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone No. \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Fax No. \_\_\_\_\_

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and  
"Power of Attorney" from Surety)

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(Printed Name of Notary)

\_\_\_\_\_  
(Serial Number, if any)

**CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER**

TO: TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: \_\_\_\_\_

PROPOSER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

AMOUNT OF BOND: \_\_\_\_\_

SURETY BOND INSURER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Before me, the undersigned authority, personally appeared, \_\_\_\_\_ on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

\_\_\_\_\_  
Signature of Officer of Surety Insurer

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.] \_\_\_\_\_

Notary Public

Printed Name of Notary

My Commission Expires:

\_\_\_\_\_

(Serial Number, if any)

**For Clerk of the Court  
Recording Purposes**

Return to: Contracts Manager  
Tampa Hillsborough Expressway Authority  
1104 East Twiggs St., Suite 300  
Tampa, FL 33602

BOND NO: \_\_\_\_\_

PAYMENT BOND – OPERATIONS AND MAINTENANCE PHASE

BY THIS BOND, We, \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Principal**, and \_\_\_\_\_, a \_\_\_\_\_ corporation, as **Surety**, located at \_\_\_\_\_ are bound to the **TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY**, herein called **Owner**, in the sum of \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Promptly makes payment to all claimants supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work under the Operations and Maintenance Phase provided for in the Contract dated \_\_\_\_\_, 20 \_\_\_\_ between Principal and Owner for the \_\_\_\_\_ (RFP No. \_\_\_\_\_), the Contract being made a part of this bond by reference; and
2. Pays Owner all loss, damages expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract related to payment for such labor, materials, or supplies furnished to the Principal, then this bond is void; otherwise it remains in full force.

The Surety's obligations hereunder shall be direct and immediate and not conditional or contingent upon Owner's pursuit of its remedies against Principal, and shall remain in full force and effect notwithstanding (i) amendments or modifications to the Contract entered into by Owner and Principal without the Surety's knowledge or consent, (ii) waivers of any default under the Contract granted by Owner to Principal without the Surety's consent, (iii) the discharge of Principal from its obligations under the Contract as a result of any proceeding Initiated under The Bankruptcy Code of 1978, as the same may be amended, or any similar state or federal law, or any limitation of the liability of Principal or its estate as a result of any such proceeding, or (iv) any other action taken by Owner or Principal that would, In the absence of this clause, result In the release or discharge by operation of law of the Surety from its obligations hereunder.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond. Further, Principal and Surety acknowledge that the Penal Sum of this bond shall increase or decrease In accordance with approved changes or other modifications to the Contract.

DATED ON: \_\_\_\_\_, 20\_\_\_\_\_.

Name of Principal (Contractor):

Name of Surety:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Attorney in Fact

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone No. \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Fax No. \_\_\_\_\_

(Attach "Certificate & Affidavit Form Surety Bond Insurer" and "Power of Attorney" from Surety)

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did not take an oath. [Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.]

My Commission Expires:

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
(Printed Name of Notary)

\_\_\_\_\_  
(Serial Number, if any)

This form complies with  
Section 255.05, Florida Statutes



**CERTIFICATE AND AFFIDAVIT FOR SURETY BOND INSURER**

TO: TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY (THEA)

RE: \_\_\_\_\_

PROPOSER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

AMOUNT OF BOND: \_\_\_\_\_

SURETY BOND INSURER:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Before me, the undersigned authority, personally appeared, \_\_\_\_\_ on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ who hereby certifies that, the insurer named above:

1. Is licensed to do business in the State of Florida;
2. Holds a certificate of authority authorizing it to write surety bonds in Florida;
3. Has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. Is otherwise in compliance with the provisions of the Florida Insurance Code; and,
5. Holds a currently valid certificate of authority issued by the United States Department of the Treasury under Section 9304 to 9308 of Title 31 of the United States Code.

\_\_\_\_\_  
Signature of Officer of Surety Insurer

STATE OF \_\_\_\_\_ :

:

COUNTY OF \_\_\_\_\_ :

THE FOREGOING INSTRUMENT was sworn to, subscribed and acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_, who \_\_\_\_ is personally known to me or \_\_\_\_ has produced \_\_\_\_\_ as identification and did take an oath.

[Notary, check appropriate blank; and, if obtaining identification, fill in appropriate identification number.] \_\_\_\_\_

Notary Public

Printed Name of Notary

My Commission Expires:

\_\_\_\_\_

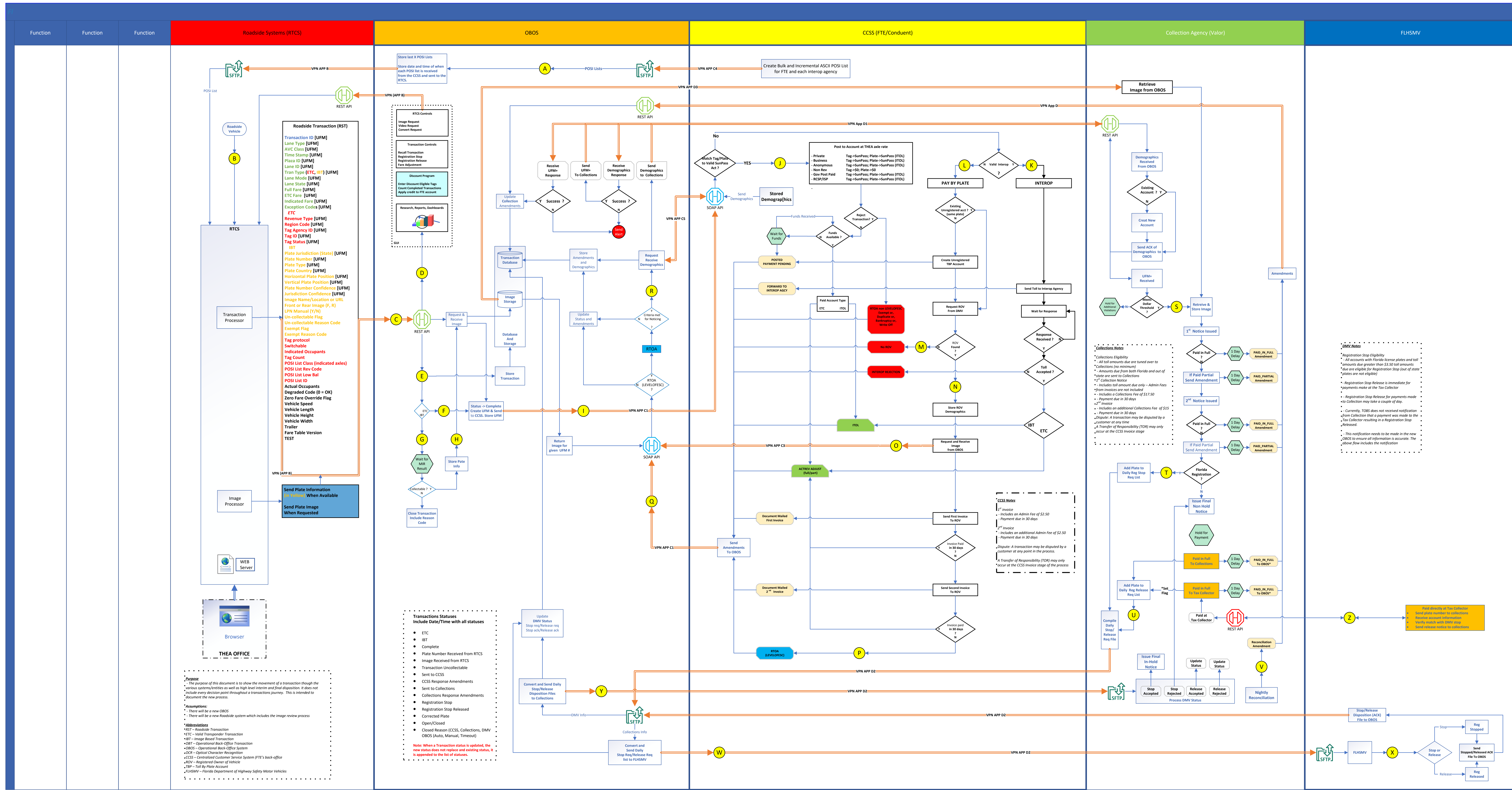
(Serial Number, if any)

**OBOS SOW and Requirements**  
**Appendices**

# **Appendix A1**

## OBOS Transaction Lifecycle Flow

# OBOS Transaction Lifecycle Flow



## **Appendix A2**

OBOS Transaction Lifecycle: A to Z

## **Operational Back Office System**

### **Appendix A2 – OBOS Transaction Lifecycle: A to Z**

The following document is a narrative of the OBOS transaction flow depicted in Appendix A1 which illustrates the major System components in a swim lane fashion. Of the five swim lanes shown (i.e., RTCS, OBOS, CCSS, Collection, and FLSHMV), this SOW is concerned only with the OBOS and its interfaces to the other entities.

RTCS Transactions are processed by the OBOS asynchronously and in real time. Appendix A1 depicts the end-to-end flow of a single transaction which may have a long path or short path through the System depending on initial status and other factors. Ultimately, all Transactions should have a final “closed” status indicating that no further processing is expected.

Each of the following lettered paragraphs corresponds to a letter in a yellow circle in Appendix A1. Note that while the Transaction Lifecycle diagram shows the most common paths for a Transaction, not every Amendment, reason code, or exception processing is included. These are discussed in more detail in the related ICDs and will be addressed in the Design and Implementation Phase of the project.

#### A. POSI Lists

Once per day, the OBOS will receive a bulk POSI List from the CCSS which is a list of all active Transponders that are acceptable to the Authority. This file is stored in the OBOS and passed directly to the RTCS. Periodically throughout the day, the CCSS will send incremental POSI Lists indicating new Transponders and Transponders that have changed status since the last bulk POSI list. The RTCS uses the Transponder status contained in the POSI List to make certain processing decisions, including whether the Transaction should be ETC active Transponder) or IBT (invalid or no Transponder). The bulk POSI List is sent from the CCSS to the OBOS each day. Incremental POSI Lists are sent as required.

#### B. Roadside Transaction

When a vehicle passes a tolling point (e.g., gantry) a roadside Transaction is immediately created by the RTCS. If the vehicle has an active Transponder in accordance with the POSI List, the Transaction will be an ETC Transaction. Otherwise, it will be an IBT (Image based) Transaction. ETC Transactions are considered Complete and ready for processing, while IBT Transactions require additional information from the automatic (or manual) image review process. The RST chart in the diagram shows all the information conveyed in the initial Transaction message or in subsequent Plate or Image messages. See Appendix B for more information on Transaction rules and messaging.

#### C. OBOS Transaction Delivery

Transactions and other message types are sent to the OBOS from the RTCS via a VPN connection. When received by the REST API, messages are checked for correct format and content, accepted or rejected, and stored for possible distribution to designated functions within the OBOS.

#### D. Monitor

This path indicates that messages may be monitored or utilized as they are received, for troubleshooting or other purposes. The monitor provides a means to interactively recall Transactions, change the fare and place and release Registration Stops. This functionality will be determined in the workshops during the Design and Implementation Phase of the project.

# Operational Back Office System

## Appendix A2 – OBOS Transaction Lifecycle: A to Z

### E. Initial Transaction Processing

All accepted Transactions are parsed and stored in the Transaction database. Transaction statuses begin at this point and are updated throughout the life of the Transaction as indicated in the chart. The following Transaction types (ETC or IBT) may contain a TEST indicator. These transactions shall contain an out-of-range Transaction IDs, be stored separately from actual Transactions, and shall not be further processed by the OBOS.

### F. ETC Transactions

A Universal Financial Message (UFM) is created from the ETC Transaction and sent via VPN to the CCSS. Note that in the event a vehicle has multiple Transponders, the RTCS will select the appropriate Transponder for the ETC Transaction.

### G. IBT Transactions

An IBT Transaction is incomplete as received from the RTCS, and the OBOS must wait (asynchronously) for the RTCS to derive the license plate number and state from the license plate Image and send the plate number together with other plate related information to the OBOS. This PLATE message will contain either a usable license plate number and state or will indicate that the Transaction is Uncollectable, meaning that a plate number and/or state could not be determined. In either case, all license plate information that is included in the message will be stored with the Transaction in the database. Like all messages, the OBOS shall record the time the message was received and update the status accordingly. If the PLATE message indicates that the Transaction is Uncollectable a status of closed (with reason code) is amended to the Transaction and normally no further action is taken. However, there are times when an Image review audit determines that a valid license plate number can be extracted from an Image whose Transaction was formerly indicated as Uncollectable. In this case, the RTCS may send a second PLATE message with the original Transaction ID and with the correct license plate information to the OBOS shall process the Transaction as a normal IBT and remove any indication of closed status. The OBOS shall generate an Alert if a configurable amount of time has passed without receiving a PLATE message from the RTCS.

### H. Image Retrieval

If a usable plate and state number are received from the RTCS, the OBOS shall update the status and request the license plate image using the location information received in the PLATE message. When the plate Image is received, it is put into storage with a link to the Transaction ID and the status of the IBT Transaction is updated to IBT Complete. A UFM is created from the IBT Transaction and sent via VPN to the CCSS.

### I. UFM Processing

At the CCSS, the UFM can take three separate paths as indicated:

- J – The Transponder or plate number is identified as belonging to a SunPass account.
- K – The Transponder or plate number is identified as belonging to an interoperable account.
- L – The plate number is not associated with any valid account.

## Operational Back Office System

### Appendix A2 – OBOS Transaction Lifecycle: A to Z

Note that the Transponder only appears in paths J and K because inactive Transponders are filtered out at the RTCS and processed as IBT Transactions.

#### J. SunPass accounts

A UFM identified as belonging to a SunPass account will be further separated into:

- Paid by tag (ACTREV ADJUST Amendment)
- Paid by plate (ITOL Amendment)
- Rejected (RTOA Amendment with various reasons)

Note that rejected Transactions in this path are not referred to the Authority's Collections agency.

If funds are not immediately available a POSTED PAYMENT PENDING Amendment will be sent to the OBOS. Transactions for customers who never replenish their accounts are handled by the CCSS and tracked by the following Amendments to OBOS. These Amendments are not shown in the A1 flow diagram.

- PROGRESSION TO COLLECTIONS
- PROGRESSION\_TO\_REG\_STOP
- PROGRESSION\_TO\_UTC
- PROGRESSION TO COURT

Any toll payment received by the CCSS during this process will be forwarded to the Authority with the ACTREV ADJUST Amendment.

#### K. Interoperable Accounts

A UFM (ETC or IBT) identified as belonging to an Interoperable account will be sent for payment to the agency owning the account. This is communicated to the OBOS via the (FORWARD\_TO\_INTEROP\_AGENCY) Amendment. Active Interoperable Transactions are reconciled back to the OBOS like SunPass account Transactions as follows:

- Paid by tag (ACTREV ADJUST Amendment)
- Paid by plate (ITOL Amendment)
- Rejected (INTEROP REJECTION Amendment with various reasons)

Note that rejected ETC Transactions are reprocessed as interoperable IBTs.

#### L. Toll by Plate

If the UFM Transaction is not associated with a valid SunPass or Interoperable account, the CCSS will attempt to collect the toll via an Invoice to the registered owner of the vehicle (ROV). The CCSS establishes Toll by Plate accounts to track invoice status and to combine tolls into a single invoice per period for the same license plate number and state. The CCSS then obtains the name and address (demographics) of the registered owner of the vehicle from various sources including the DMV of the state in which the vehicle is registered.

#### M. No ROV

At some point, the CCSS will determine that the ROV is not available and will send a No ROV Amendment to the OBOS. Note that the process to obtain the ROV can take days, weeks, or months.



## **Operational Back Office System**

### **Appendix A2 – OBOS Transaction Lifecycle: A to Z**

#### **N. Invoicing**

With the ROV available, the CCSS will proceed to send up to two invoices to the owner of the vehicle. The OBOS is notified by Amendment (i.e., Document Mailed) when each invoice is sent. If either of these invoices are paid (in part or in full) the CCSS will notify the OBOS via an ACTREV ADJUST Amendment.

#### **O. Get Image**

Prior to sending the invoice, the CCSS must include the Image of the vehicle license plate on the invoice. In support of this, the OBOS includes a “Get Image” ICD (Appendix C-3) that will synchronously return the proper image to the CCSS upon request.

#### **P. Collections**

If neither invoice is paid within thirty (30) Calendar Days of being sent, the CCSS will send an RTOA Amendment with reason code LEVELOFESC to the OBOS. This indicates to the OBOS that the Transaction should be sent to the Authority third-party Collections service. Note that this is the only Amendment resulting in a Transaction being sent to the Authority’s Collections.

#### **Q. CCSS Amendments**

Most CCSS Amendments indicate either an interim state or final disposition of the Transaction and these serve to update the Transaction status and are stored in the database requiring no further action. If, however, the Amendment is RTOALEVELOFESC, the CCSS may proceed with Collections if it is confirmed that two invoices were sent to the customer and the Demographics are available. If these conditions are met, the OBOS will store the Amendment with an additional status that the Transaction was sent to Collections and will initiate collections activity for the Transaction. If the conditions are not met, the OBOS will store the Amendment with an additional status indicating that the Transaction was not sent to Collections.

#### **R. Initiate Collections**

The Collection process is started with the OBOS requesting the Transaction Demographics from the CCSS based on the UFM ID. The Demographics are sent by the OBOS to Collections where a new collections account is created, or an existing account is used based on plate number and state. When the OBOS is notified that the Demographics were accepted by Collections, the OBOS follows by sending the Transaction UFM to Collections, amended with plate image location, if necessary.

#### **S. Noticing**

Accounts that meet a dollar threshold will be sent collection notices. The first part of the noticing process is to retrieve the plate Image to put on the notice. This is the same Image that is used by the CCSS for invoicing although the retrieval method may be different. The first notice is then sent to the owner of the vehicle. If this notice is paid in full or in part, a Collections Amendment is sent to the OBOS. If it is not paid in full within 30 days, a second notice is sent. If this notice is paid in full or in part, a Collections Amendment is sent to the OBOS. If it is not paid in full within 30 days, the Transaction moves to Registration Stop.

#### **T. Registration Stop Request**

While Collection notices can be sent to anyone whose Demographics are available, a Registration Stop is currently only applied to Florida registrations. Once per day, Collections will compile a list of accounts that qualify for this procedure.

## **Operational Back Office System**

### **Appendix A2 – OBOS Transaction Lifecycle: A to Z**

#### **U. Registration Release Request**

Likewise, once per day, Collections will compile a list of those accounts that have paid in full and should be released from Registration Stop. Registration Stop requests and Registration Release requests are sent to the OBOS daily in one request file.

#### **V. Daily Reconciliation**

Once per day, Collections will summarize daily activity by Transaction and send this file to the OBOS. Activities are:

- RECALLED\_FROM\_COLLECTIONS
- PAID\_IN\_FULL\_FROM\_COLLECTIONS
- PAID\_PARTIAL\_FROM\_COLLECTIONS
- PMT\_REVERSAL\_FROM\_COLLECTIONS

#### **W. Send to FLSHMV**

The OBOS will store and convert the daily Request file into the format required by the Florida Department of Highway Safety and Motor Vehicles (FLSHMV) and send it to that agency.

#### **X. Registration Stop/Release (FLHSMV) Process**

The FLHSMV will apply the Stop and Release requests and respond with a single acknowledge file indicating the disposition of each request.

#### **Y. Receive from FLHSMV**

The OBOS will receive and store the daily Request Acknowledge file, convert it back to Collections format and send it to Collections.

#### **Z. Paid at Tax Collector**

In lieu of paying the Authority directly for any owed in Collections, a customer may pay directly at select offices of a Florida Tax Collector to release a Registration Stop. When paid, this information is communicated internally from the Tax Collector to the FLSHMV. THEA Collections has a separate interface with the FLSHMV to receive this information. When notified that a Stop has been paid to the Tax Collector, Collections will include that account in the next Request file as a Release Request but with a flag set indicating to the OBOS not to include that account in the Request file to FLSHMV. OBOS will store that information as a special Release Acknowledge.

# **Appendix B**

RTCS/OBOS ICD Overview v4.0



# APPENDIX B

## RTCS/OBOS ICD OVERVIEW

### V4.0

*Abstract*

A summary of RTCS / OBOS communication requirements

**Operational Back-Office System**  
**Appendix B – RTCS-OBOS ICD Overview**

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# Operational Back-Office System

## Appendix B – RTCS-OBOS ICD Overview

### INTRODUCTION

The purpose of this document is to define data type, file formats and communication protocols for the Authority RTCS to OBOS interface. The data exchange (message) types are listed in the Table below:

Data Exchange	Name	Data Direction	Data Format	Method/ Protocol	Frequency	Description
<b>Tag Status</b>	POSI List	OBOS->RTCS	Text File	SFTP	Bulk (Daily) Inc as required	Bulk - Full list of valid transponder numbers with statuses.  Incremental – Transponder Numbers with new or changed statuses.
<b>Transactions</b>	TRAN	RTCS->OBOS	JSON	REST API	Every Vehicle	Initial Transaction record sent by RTCS to OBOS in real time
<b>Plate Info</b>	PLATE	RTCS->OBOS	JSON	REST API	Every IBT OR Convert Request	Result of RTCS image review or Convert Request (below): (1) Plate information OR (2) “Uncollectable”
<b>Image Request</b>	IREQ	OBOS-> RTCS	JSON	REST API	Every IBT or other OBOS processes or interactive functions	Image requested by OBOS based on Transaction ID
<b>Image Response</b>	IMAGE	RTCS->OBOS	JPEG	REST API	Every Image Request	Image returned to OBOS based on Transaction ID
<b>Video Request</b>	VREQ	OBOS-> RTCS	JSON	REST API	On Demand	Manual request of video surrounding transaction.
<b>Video Response</b>	VIDEO	RTCS->OBOS	Mp4	HTTP	Every Video Request	DVAS video associated with transactions made available on demand. Based on Transaction ID.
<b>Convert Request</b>	CREQ	OBOS->RTCS	JSON	REST API	On Demand	Convert ETC to IBT (Tran ID)
<b>CCSS License Plate Correction</b>	CLPCORR	OBOS > RTCS	JSON	REST API	Daily	A list of incorrect license plate numbers discovered at CCSS. Used to inform RTCS of incorrect plate number extraction.
<b>Reconciliation</b>	REC	RTCS->OBOS	JSON	REST API	Daily Automatic	Transaction counts by type & lane
<b>Dispositions</b>	DISP	OBOS->RTCS	JSON	REST API	Daily Automatic	Transaction Disposition Status
<b>Fare Table</b>	FARE	OBOS->RTCS	JSON	REST API	Yearly	Fiscal Year Fare Table
<b>Acknowledge</b>	ACK	Receiver to Sender	JSON	REST API	Every API Message	Acknowledgement of file received and an indication of accepted or rejected

### TAG STATUS (POSI List)

The OBOS shall send to the RTCS the daily Bulk and incremental POSI List files received from the FTE CCSS. Following is the structure of one record from the Posi List received from the CCSS.

# Operational Back-Office System

## Appendix B – RTCS-OBOS ICD Overview

TAG ID								Agency		State		Tag Status		Tag Class		Rev Code		Low Bal	NA	NA
0	0	0	0	2	0	2	2	0	1	1	0	0	1	0	2	0	1	N	N	N

Tag Status Codes	
Tag Status	Description
00	Inactive
01	Active
02	Lost/Stolen
03	Returned
04	Terminated

Tag Class	
Tag Class	Description
NN	Indicated Axles

Revenue Codes	
Rev Code	Description
00	UNKNOWN
01	STDPATRON
02	COMMERCIAL
04	NONREV
05	BAY ISLE PASS ONLY
06	BAYWAY COMMUTER PASS ONLY

A file name shall be appended to the POSI List (Bulk and incremental) as received from the CCSS, and then passed directly to the RTCS via SFTP.

Bulk POSI List File Name:                    YYYY-MM-DD HH:MM:SS BLK.txt  
 Incremental POSI List File Name:        YYYY-MM-DD HH:MM:SS INC.txt

The date and time in the file name are when the POSI List is sent to the RTCS

Following is a sample Bulk POSI List File with 6 Tags.:

```

2024-07-06 04:30:36 BLK.txt CR
000020220110010201NNN CR
000020230110010201NNN CR
000020240110040201YNN CR
000020250110010201NNY CR
000020260110010202NNN CR
000020280110010201NNN CR
  
```

The format is the same for the incremental POSI list but with a different file name as indicated.  
 The method of acknowledging receipt of this and all SFTP files shall be determined in the design phase.

# Operational Back-Office System

## Appendix B – RTCS-OBOS ICD Overview

### TRANSACTIONS and PLATE INFO

#### Overview

The RTCS vendor will be responsible for the complete roadside transaction including any necessary image review (previously called “fully formed”). All transactions, complete or incomplete, will be sent immediately to OBOS.

The RTCS will update any transactions that are missing plate and state information when it becomes available. Upon receipt of a license plate number the OBOS will retrieve the associated image from the RTCS.

The following is a list of OBOS/RTCS transaction rules and requirements.

- OBOS and the RTCS communicate over a VPN.
- One and only one transaction is created for each vehicle that passes through a tolling point.
- One and only one designated tag number for each transaction with a valid tag(s).
- One and only one plate number and image associated with each plate-based transaction.
- RTCS transactions are sequentially numbered and sent to OBOS in real time<sup>1</sup>.

Transaction IDs are unique, sequential, and assigned to transactions throughout the system prior to sending to the OBOS in real time. However, it is not required that Transaction IDs be in the exact time sequence that the transactions occurred on the roadside.

#### License Plate Processing

In the OBOS system there are license plate numbers and license plate images. Images are retrieved from the RTCS by request from the OBOS. While a license plate image is hypothetically only necessary for customer invoices or collection notices, they can also aid in spot checking, ITOL verification, accuracy confirmation, etc. Therefore, all IBT images are requested by the OBOS as soon as a valid license plate number is received from the RTCS. License Plate *numbers* are sent from the RTCS to the OBOS under three scenarios:

1. Automatically for each IBT. Results are: Valid Plate # (PLATE message) or Uncollectable.
2. Upon a “Convert” request from OBOS due to a rejected ETC transaction. Results are: Valid Plate # (PLATE message) or Uncollectable.
3. To correct mistakes found by an audit or review of the RTCS image processing system. These fall into two categories:
  - a. IBT Transactions that had been deemed Uncollectible. In this case the RTCS will send a PLATE message to the OBOS and upon verification of current Uncollectable status the OBOS will immediately request the corresponding plate image and process the transaction as an IBT.

---

<sup>1</sup> Transaction IDs are unique, sequential, and assigned to transactions as they happen throughout the system in real time. However, it is not required that Transaction IDs be in the exact time sequence that the transactions occurred in the lane.



# Operational Back-Office System

## Appendix B – RTCS-OBOS ICD Overview

- b. IBT Transactions that had previously been sent to the OBOS with a valid license plate number (IBTs) and were incorrect upon review by RTCS. In this case the job of the OBOS is to recall the transaction from the CCSS or Collections depending on its current state. Transactions are recalled from Collections via a defined API message. Transactions are recalled from the CCSS via the daily CCSS Recall file containing the UFM ID and plate number.

In summary, the RTCS may send a PLATE message to the OBOS at any time, and it will be up to the OBOS to determine if it is due to a new IBT, a Convert request, a previously Uncollectable Transaction, a recall, or a duplicate, and process accordingly.

### Test Transactions

The RTCS may at times utilize transactions with a TEST indicator. These test transactions shall have a transaction ID that cannot be confused with the transaction ID of actual transactions. The data in a test transaction message may be simulated or data from actual traffic.

### Transaction Message

The Transaction message shown below contains all possible information in a transaction. However not every transaction contains all fields. For example, a valid ETC transaction does not contain the fields related to license plates. The chart below indicates the fields associated with each transaction type.

### Color Key

Transaction ID	In all TRAN, PLATE, and IMAGE messages sent to OBOS
General UFM Information	In all TRAN messages sent to OBOS
Tag Information	In all ETC (valid tag) and IBT (if available) TRAN messages sent to OBOS
Plate Information	In all PLATE messages sent to OBOS
Supplemental Information	In all TRAN messages sent to OBOS, if available.

### RTCS Transaction Data Elements

Field Name	Description/Values
Msg Type	"TRAN"
(Start UFM Data)	
Transaction ID	Unique Transaction ID from lanes
Lane Type	"S"
AVC Class	Axle count (2-15)
Time Stamp	Time (UTC) and Date of transaction in lane
Plaza ID	Predefined values
Lane ID	Predefined values
Tran Type	ETC, IBT
Lane Mode	"AUTO"
Lane State	OPEN, CLOSED, MAINTENANCE
Full Fare	Published "IBT" toll for vehicle class
ETC Fare	Published "Tag" toll for vehicle class
Indicated Fare	Calculated toll based on all variables
Exemption Codes	Used only if there are exceptions (from list)
Revenue Type	"UNKNOWN", "STDPATRON", "COMMERCIAL", "NONREV", (from POSI List)
State/Region Code	2-digit code (See Agency Conversion Rules below)

## Operational Back-Office System

### Appendix B – RTCS-OBOS ICD Overview

Tag Agency ID	2-digit code (See Agency Conversion Rules below)
Tag ID	10 -digit code
Tag Status	From POSI List (e.g. "ACTIVE")
Plate Jurisdiction (State)	State where plate is registered
Plate Number	License Plate number
Plate Type	Plate type (public, govt, etc.)
Plate Country	Country of plate reg (US, CA, MX)
Horizontal Plate Position	Plate Position on image
Vertical Plate Position	Plate Position on image
Plate Number Confidence	OCR Engine (s) 0 to 4095
Jurisdiction Confidence	OCR Engine (s) 0 to 4095
<b>(End UFM Data)</b>	
Name Location of Image used	Name/path: URL:location (F or R):index #
Front or Rear Image (F, R)	Location of plate on Vehicle
LPN Manual (Y/N)	Was this plate number manually derived?
Uncollectable Flag	True = Uncollectable (do not send to CCSS)
Uncollectable Reason Code	Codes to be developed. Includes ZFO or Exempt
Exempt Flag	Exempt from toll due to plate number
Exempt Reason Code	Determined by Authority
Tag Protocol	SeGo, TDM, 6C
Switchable	Switchable Tag (can indicate # of occupants)
Indicated Occupants	# of occupants indicated by tag
Tag Count	The number of tags read in the vehicle
POSI List Class (indicated Axles)	2 char decimal from POSI list
POSI List Rev Code	2 char decimal from POSI list
POSI List Low Bal	1 char from POSI list
POSI List ID	ID of POSI list used for this transaction
Actual Occupants	# of occupants determined by roadway devices
Degraded Code	One of more lane sensors is inoperable (0 – OK)
Zero Fare Override Flag	Transaction occurred while in this mode.
Vehicle Speed	Vehicle speed through gantry
Vehicle Length	Vehicle Length in feet
Vehicle Height	Vehicle height in feet
Vehicle Width	Vehicle width in feet
Trailer (Y/N)	If Y vehicle is pulling a trailer.
Fare Table Version	Version number of Fare Table used for transaction
TEST	Test transaction indicator

#### Agency Conversion Rules

The inclusion of TDM and 6C transponder protocols requires a conversion to keep the same format for all tag types. The current 4-character structure for State and Agency in the Transaction message is populated as follows:

##### For SeGo (SunPass) tags:

- State → 2 char decimal converted from 8-bit binary State field on tag.
- Agency → 2 char decimal converted from 8-bit binary Agency field on tag.

##### For TDM (IAG) tags:

Agency codes 0 thru 99

- State → 65 decimal
- Agency → 2 char decimal converted from 7-bit binary agency field on tag.

# Operational Back-Office System

## Appendix B – RTCS-OBOS ICD Overview

Agency codes 100 thru 199

- State → 66 decimal
- Agency → 2 char decimal subtracting 100 from 7-bit binary agency field on tag.

**For 6C tags:**

Agency codes 0 thru 99

- State → 20 decimal
- Agency → 2 char decimal converted from 12-bit binary agency field on tag.

Agency codes 100 thru 199

- State → 21 decimal
- Agency → 2 char decimal subtracting 100 from 12-bit binary agency field on tag.

Agency codes 200 thru 299

- State → 22 decimal
- Agency → 2 char decimal subtracting 200 from 12-bit binary agency field on tag.

Continue up to 2549.

- State → 45 decimal
- Agency → 2 char decimal subtracting 2500 from 12-bit binary agency field on tag.

**Examples**

SeGo Tag: State = 10; Agency = 01 as read from tag (FTE)

Transaction fields: State = 10; Agency = 01

TDM (IAG) Tag: Agency = 125 as read from tag (BestPass)

Transaction fields: State = 66; Agency = 25

6C Tag: Agency = 0171 as read from tag (Nassau County Bridge Authority (NCBA))

Transaction fields: State = 21; Agency = 71

### IMAGE REQUEST

License plate images (300KB, JPEG) shall be retrieved directly from the RTCS using the IREQ message. License Plate images are requested by the OBOS for every IBT (including uncollectable) and as needed by other OBOS processes. It is incumbent on the RTCS to identify and provide the best human readable image appropriate to the vehicle type. The Image Request message (IREQ) is valid only if the OBOS has previously received a PLATE message. The reason for this is that while images of ETC transactions may exist, there is no defined mechanism for the RTCS to provide the best human readable image.

Field Name	Description/Values
Msg Type	"IREQ"

## Operational Back-Office System

### Appendix B – RTCS-OBOS ICD Overview

Field Name	Description/Values
Transaction ID	Unique Transaction ID

#### IMAGE RESPONSE

The RTCS will respond, synchronously, to the IREQ message with the IMAGE message which is a JPG file comprising a human readable image.

Field Name	Description/Values
Msg Type	"IMAGE"
Transaction ID	Same Transaction as in IREQ
Status	0 – Image not available 1 – Image available
Image	A JPG binary file required if Return Code is "1".

#### VIDEO REQUEST

The OBOS will request video from the RTCS showing before and after a Transaction as needed to process Transactions and perform other business operations such as researching Transaction information. The video clip may be requested from the RTCS at any time by sending the Transaction ID to the RTCS. Video clips will be of a fixed length determined by the RTCS. Video of transactions are captured at the roadside and stored for at least 90 days.

Field Name	Description/Values
Msg Type	"VREQ"
Transaction ID	Unique Transaction ID
Video type	DVAS video 0 – Front DVAS 1 – Rear DVAS

#### VIDEO RESPONSE

Field Name	Description/Values
Msg Type	"VIDEO"
Transaction ID	Same Transaction as in VREQ
Status	0 – Video not available 1 – Video available
Video Blob	A binary video stream of the requested video. Required if Status is "1".

## Operational Back-Office System

### Appendix B – RTCS-OBOS ICD Overview

#### CONVERT REQUEST

When an ETC Transaction is rejected by the CCSS or Interoperable Home Agency with a 'Return to Originating Agency' Amendment Type with Amendment Reason as Invalid Account or Invalid Transponder, the Transaction may be converted to an IBT transaction.

Upon receiving the Convert Request message, the RTCS will respond, asynchronously, with PLATE message as defined above which the OBOS shall process normally using the original UFM and Transaction ID. The amended UFM will be resent to CCSS with Amendment Reason code "ETC to VIOLATOR MOP", only if the amended UFM satisfies eligibility for revenue collection through image-based tolling.

Field Name	Description/Values
Msg Type	"CREQ"
Transaction ID	Unique Transaction ID

#### LICENSE PLATE CORRECTION (CLPCORR)

The following message structure is used to send incorrect license plate information from the OBOS to the RTCS. The reason for this message is to provide feedback to the RTCS that may be used to discover potential issues or trends in the image review or automatic license plate number extraction function. The source of this information is from a CCSS PLATE\_MISREAD amendment with a reason code of CUST\_DISPUTE.

Field Name	Description/Values
Msg Type	"CLPCORR"
Transaction ID	Transaction ID
Incorrect License Plate	Plate letters/numbers/special characters associated with the incorrect license plate.
Incorrect License Plate Jurisdiction	Jurisdiction code (State/Province) associated with the incorrect license plate.
Incorrect License Plate Type	License plate type associated with the incorrect license plate.
Incorrect License Plate Country	Country code associated with the incorrect license plate.
Correct License Plate	Plate letters/numbers/special characters associated with the correct license plate.
Correct License Plate Jurisdiction	Jurisdiction code (State/Province) associated with the correct license plate.
Correct License Plate Type	License plate type associated with the correct license plate.

## Operational Back-Office System

### Appendix B – RTCS-OBOS ICD Overview

Field Name	Description/Values
Correct License Plate Country	Country code associated with the correct license plate.

## RECONCILIATION

The RTCS shall send a daily file to the OBOS indicating the total transactions by lane and type that were sent to and accepted by the OBOS on the previous day. Totals are provided in a daily file sent to the RTCS via SFTP. The data format is fixed length text records separated by a carriage return. The record structure is shown in the following chart.

Field Name	Description/Valid Values
Lane ID	Unique Lane ID
ETC	Total ETC transactions
IBT	Total image-based transactions
UNCOLL	Total uncollectable transactions
NON-ACKED	Total unsuccessful transactions

## DISPOSITIONS

To aid in the diagnosis of lane level issues, feedback shall be provided from the OBOS to the RTCS regarding the disposition of Transactions. A single disposition shall be provided for each completed transaction record received and accepted by the OBOS. Dispositions are provided in a daily file sent to the RTCS via SFTP. The data format is fixed length text records separated by a carriage return. The record structure is shown in the following chart. Disposition code examples are shown at the end of the chart.

**Note: Final Disposition Codes will be developed during the design phase of the project.**

Field Name	Description/Valid Values
TRANS ID	Unique Transaction ID
DISPOSITION	Primary Code, Secondary Code. Example 0302
DATE	Format (ISO-8601): YYYY-MM-DDThh:mm:ssZ

### Disposition Codes Examples

DISPOSITION CODES			
PRIMARY CODE		SECONDARY CODE	
01	PAID	01	ETC
		02	ITOL
		03	INV
		04	COLL

**Operational Back-Office System**  
**Appendix B – RTCS-OBOS ICD Overview**

02	ADJUST	01	AXLE
		02	FARE
03	REJECT	01	INTEROP
		02	IMAGE
		03	DUP
		04	DATA
04	RTOA	01	TAG LOST
		02	TAG STOLEN
		03	INVTAG
05	UNCOLL	01	INFO
06	UNBILLABLE	01	EXEMPT
		02	ZFO
07	WRITE OFF	01	REASON

### FARE TABLE

The Fare Table, will be manually uploaded in Microsoft Excel format, and stored in the OBOS as the system of record at least once per year. The latest version of the Fare Table shall be sent to the RTCS via a manually entered command built into the OBOS and presented to the USER when the Fare Table is viewed on the OBOS. The OBOS shall generate an Alert if the latest version of the Fare Table has not been sent to the RTCS. The OBOS Contractor shall define the message structure for the Fare Table API which shall include the effective date and time. A Fare Table example is in Appendix H.

# **Appendix C1**

CCSS

Away Agency Interface Control Document

V 6.19

(Refer to MS Word Version)





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**Toll Interchange Interface Control Document (ICD)**




<b>Document:</b>	CCSS - Away Agency Interface Control Document -Appendix A
<b>Document Author:</b>	Florida's Turnpike Enterprise
<b>Document Version #:</b>	6.19
<b>Document Version Date:</b>	11/03/2020


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  - 3.1 UFM Delivery Web Service Interface ..... 4
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    - 3.2 Inbound UFM Amendment Web Service Interface (CCSS Amendments to Away Agency) ..... 5
      - Web Service Layout ..... 5
    - 3.2 Outbound Amendment Web Service Interface (Away Agency Amendments to CCSS) ..... 5
      - Web Service Layout ..... 6

ID	Description
CCSS_ICD_AppxA_1	<b>1. Purpose</b>
CCSS_ICD_AppxA_2	The purpose of this document is to outline the interface and Web services used to transfer lane transaction data and disposition of same between the CCSS and Away Agencies.
CCSS_ICD_AppxA_336	<b>1.1 Overview</b>
CCSS_ICD_AppxA_337	<p>Away agencies need to develop near real-time interface by which lane transaction data can be submitted to or from CCSS to agencies.</p> <p>Such transactions are submitted for purposes of charging a Home Agency's customer account, or pursue revenue collection through TOLL-BY-PLATE program.</p> <p>This real-time interface includes providing disposition of each transaction submitted as well as corrections and deferred processing results when applicable. Note that final disposition may vary depending on what is included in scope of the Agreement between CCSS and the Away Agency.</p>
CCSS_ICD_AppxA_372	<b>1.2 Terms and Definitions</b>
CCSS_ICD_AppxA_373	<b>UFM</b> - Uniform Financial Message, contains the elements of information captured by the lane equipment during the movement of a vehicle through the lane.
CCSS_ICD_AppxA_374	<b>Amendment</b> - Corrections and deferred processing results, amending one or more of the UFM elements of information when necessary.
CCSS_ICD_AppxA_401	<b>WSDL</b> - Web Services Description Language is an <a href="#">HYPERLINK "/wiki/XML"</a> XML-based language that is used for describing the functionality offered by a <a href="#">HYPERLINK "/wiki/Web_service"</a> Web service.
CCSS_ICD_AppxA_422	<b>Away Agency</b> - the Agency at which the toll event occurred.
CCSS_ICD_AppxA_423	<b>Home Agency</b> - the Agency at which the customer's account is managed.
CCSS_ICD_AppxA_424	<b>CCSS</b> - Centralized Customer Service System (CCSS) is the umbrella term used to describe the systems, processes, people, and facilities pertaining to customer account management, and the collection and reporting of revenue for the Agencies.
CCSS_ICD_AppxA_338	<b>2. Non-Functional Requirements</b>
CCSS_ICD_AppxA_360	<b>2.1 Communication Protocol</b>
CCSS_ICD_AppxA_362	<b>2.1.1 WSDL</b>

ID	Description
CCSS_ICD_ AppxA_361	Below outlines the web service specifics that will be used for all web service requests between CCSS and each Away Agency for which this interface applies.
CCSS_ICD_ AppxA_8	<b>Interface Type:</b> Synchronous
CCSS_ICD_ AppxA_10	<b>Delivery Format:</b> SOAP Web Service Request
CCSS_ICD_ AppxA_11	<b>Frequency:</b> On Demand
CCSS_ICD_ AppxA_12	<b>Interface Specification Format:</b> WSDL
CCSS_ICD_ AppxA_355	<b>2.2 Security</b>
CCSS_ICD_ AppxA_356	<b>2.2.1 Authentication Protocol</b>
CCSS_ICD_ AppxA_357	Communication shall be through a VPN tunnel.
CCSS_ICD_ AppxA_5	<b>3. Interfaces</b>
CCSS_ICD_ AppxA_137	These requirements detail the interface between CCSS and the Away Agency to support delivery of lane transaction data and disposition of same. This interface is defined generically to support a broad range of Interoperable Partners. Data Elements that are described as Optional or provided only when available may be omitted if they are not applicable to the Away Agency.
CCSS_ICD_ AppxA_6	<b>3.1 UFM Delivery Web Service Interface</b>
CCSS_ICD_ AppxA_435	The UFM delivery web service Interface provides an ability for an Away Agency to send a UFM to the CCSS for each toll transaction
CCSS_ICD_ AppxA_136	<b>Provider:</b> CCSS  <b>Consumer:</b> Away Agency  <b>Trigger:</b> Away Agency makes a request to deliver lane transaction data to the CCSS for processing.
	<b>Web Service Layout</b>
CCSS_ICD_ AppxA_406	The data elements included in the UFM Delivery are provided below. Right click on the icon and open as 'Worksheet Object'. Note that data elements that may be amended are specified in column labeled 'Amendable?'.

ID	Description
	 UFM Data Delivery Elements.xlsx
CCSS_ICD_AppxA_414	<b>3.1.1 Exception Codes</b>
CCSS_ICD_AppxA_415	<p>The UFM Delivery web service interface accommodates a list of exceptions that have been recognized during the movement of a vehicle through the lane. This list of exception codes is referenced in following document - <b>Exception codes from FTE perspective.xlsx</b></p> <p>CCSS will be notified in case new additions to the exception code list requires any business rule processing at CCSS back-office.</p>  Exception codes from FTE perspective
CCSS_ICD_AppxA_30	<b>3.2 Inbound UFM Amendment Web Service Interface (CCSS Amendments to Away Agency)</b>
CCSS_ICD_AppxA_410	The Inbound Amendment Web Service Interface provides a mechanism for CCSS to request that the away agency to persist an amendment to a toll transaction.
CCSS_ICD_AppxA_196	<p><b>Provider:</b> Away agency  <b>Consumer:</b> CCSS  <b>Trigger:</b> CCSS has determined that the UFM transaction has changed state requiring feedback to the Away agency.</p>
	<b>Web Service Layout</b>
CCSS_ICD_AppxA_442	<p>The below elements of information will be provided within an Inbound UFM Amendment. Right click on the icon and open as 'Worksheet Object'</p>  InboundAmender.xlsx
CCSS_ICD_AppxA_436	<b>3.2 Outbound Amendment Web Service Interface (Away Agency Amendments to CCSS)</b>
CCSS_ICD_AppxA_439	The outbound amendment web service interface provides a mechanism for away agency to replace toll transaction information already sent to the CCSS with updated/corrected

ID	Description
	information. Refer Amendment data elements for the elements of information that is provided with the Outbound UFM amendment request.
CCSS_ICD_AppxA_440	<b>Provider:</b> CCSS <b>Consumer:</b> Away Agency <b>Trigger:</b> Away Agency has determined that the UFM transaction has been updated/corrected in the away agency host system requiring feedback to CCSS System.
	<b>Web Service Layout</b>
CCSS_ICD_AppxA_443	The below elements of information will be provided within an Outbound UFM Amendment. Right click on the icon and open as 'Worksheet Object'  Outbound Amendment_Data De

## **Appendix C2**

Interface Control Document –  
UFM Data Source Table

**Operational Back-Office System**  
**Appendix C2 - ICD - UFM Data Source Table**

Legend
OBOS Inserted
General UFM Info
ETC Transaction
Image Transactions
Not Used by THEA

New RTCS Transaction (RTS)	UFM Field	Source	Meaning/use
	Agency IAG Code	OBOS	Three-digit IAG number for THEA (038)
	Submit Time	OBOS	Time and date UFM submitted to CCSS
	UFM ID	OBOS	Unique UFM ID number
Transaction ID	TIP UFM Seq.	RTCS	Unique Transaction ID from lanes
Lane Type (From list in RTCS)	Lane UFM Type	RTCS	Predefined Values = "S"
AVC Class (Actual Axles)	Cal Class	RTCS	Axle count
Time Stamp	Time Stamp	RTCS	Time and Date of transaction in lane
Plaza ID	Plaza ID	RTCS	Predefined values
Lane ID	Lane ID	RTCS	Predefined values
Tran Type	Pay Method	RTCS	EXEMPT, ETC, VIOLATOR (IBT)
Lane Mode (From list in RTCS)	Lane Mode	RTCS	AUTO (from predefined list)
Lane State	Lane State	RTCS	OPEN, CLOSED, MAINTENANCE
Full Fare Revenue	Full Fare Revenue	RCTS	Published "IBT" toll amount for veh class
ETC Fare Revenue	ETC Fare Revenue	RCTS	Published "Tag" toll amount for veh class
Indicated Revenue	Indicated Revenue	RCTS	Calculated toll amount based on all variables
	Actual Revenue	NA	NULL
Exception Codes (From list in RTCS)	Exceptions Codes	RTCS	Over 125 codes.



**Operational Back-Office System**  
**Appendix C2 - ICD - UFM Data Source Table**

	Account ID	NA	NULL
	TIP Adjusted	OBOS	OBOS manual adjustment was made
Revenue Type	Revenue Type	RTCS	From POSI List: UNKNOWN, STDPATRON, COMMERCIAL, NONREV, BAYWAY ISLE PASS ONLY, BAYWAYCOMMUTER PASS ONLY
	Level of Escalation	OBOS	"INVOICE"
	Previous Plaza ID	NA	NULL
	Previous Lane ID	NA	NULL
	Previous Time	NA	NULL
State/Region	State/Region	RTCS	Currently 10 = Florida
Tag Agency ID	Agency ID	RTCS	NIOP compliance Convert from tag Example has "01"
Tag ID	Transponder ID	RTCS	Now 8 digits need 9 {2^28}
	Passbak	NA	NULL
Tag Status	Transponder Status	RTCS	From POSI List: ACTIVE, LOST/STOLEN, RETURNED, TERMINATED, NOTPOSLIST
	Internal Num	NA	NULL
	Prepaid Pass Type	NA	NULL
LPN State	Jurisdiction	RTCS	State where license plate is registered
LPN Number	Plate Read	RTCS	License Plate number
Plate Type	Plate Type	RTCS	Plate type (public, govt, etc.)
Plate Country	Plate Country	RTCS	Country of plate reg (US, CA, MX)
Horizontal Plate Position	Horizontal Position	RCTS	Starting Coordinates?
Vertical Plate Position	Vertical Position	RCTS	Starting Coordinates?
LPN Confidence	Plate Read Confidence	RTCS	OCR Engine (s) 0 to 4095
Jurisdiction Confidence	Juris read conf	RTCS	OCR Engine (s) 0 to 4095
	Trip ID	NA	Null Possible Future
	Trip Association Type	NA	Null Possible Future

## **Appendix C3**

Interoperable Agency ICD –  
Get Image Request v1.1

(Refer to MS Word Version)



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**Toll Interchange Interface Control Document (ICD)**

<b>Document:</b>	Interoperable Agency Interface Control Document – Get Image Request
<b>Document Author:</b>	Florida's Turnpike Enterprise
<b>Document Version #:</b>	1.1
<b>Document Version Date:</b>	08/14/2018

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  - 3.1 3.1 UFM Get Image Request Web Service Interface ..... 5
    - 3.1.1 Exception Handling ..... 5


ID	Description
CCSS_IC D_IMG_ 1	<b>1. 1 Purpose</b>
CCSS_IC D_IMG_ 2	The <b>Get Image</b> service call provides a means for CCSS to request best known Violation Enforcement System (VES) Image from Away Agency. If CCSS wants to get VES Image, it will use the Get Image call and send the UFM ID attribute in the UFM as input parameters. The Away Agency will then return an <b>Image Attachment</b> in the form of a byte array of best known .jpg-formatted image to CCSS.
CCSS_IC D_IMG_ 336	<b>1.1 1.1 Overview</b>
CCSS_IC D_IMG_ 337	In order to produce the license plate image on invoice and UTC documents, CCSS would make a request to away agency to provide the best known image as determined by away agency for the associated UFM.
CCSS_IC D_IMG_ 372	<b>1.2 1.2 Terms and Definitions</b>
CCSS_IC D_IMG_ 373	<b>UFM</b> - Uniform Financial Message, containing the elements of information captured by the lane equipment during the movement of a vehicle through the lane.
CCSS_IC D_IMG_ 401	<b>WSDL</b> - Web Services Description Language is an <a href="#">HYPERLINK "/wiki/XML"</a> XML-based language that is used for describing the functionality offered by a <a href="#">HYPERLINK "/wiki/Web_service"</a> Web service.
CCSS_IC D_IMG_ 422	<b>Away Agency</b> - the Agency at which the toll event occurred.
CCSS_IC D_IMG_ 424	<b>CCSS</b> - Centralized Customer Service System (CCSS) is the umbrella term used to describe the systems, processes, people, and facilities pertaining to customer account management, and the collection and reporting of revenue for the Agencies.
CCSS_IC D_IMG_	<b>UTC</b> - Uniform Traffic Citation

ID	Description
CCSS_IC D_IMG_ 338	<b>2. 2 Non-Functional Requirements</b>
CCSS_IC D_IMG_ 360	<b>2.1 2.1 Communication Protocol</b>
CCSS_IC D_IMG_ 362	<b>2.1.1 WSDL</b>
CCSS_IC D_IMG_ 361	Below outlines the web service specifics that will be used for all web service requests between CCSS and each Away Agency for which this interface applies.
CCSS_IC D_IMG_ 8	<b>Interface Type:</b> Synchronous
CCSS_IC D_IMG_ 10	<b>Delivery Format:</b> SOAP Web Service Request
CCSS_IC D_IMG_ 11	<b>Frequency:</b> On Demand
CCSS_IC D_IMG_ 12	<b>Interface Specification Format:</b> WSDL
CCSS_IC D_IMG_ 355	<b>2.2 2.2 Security</b>
CCSS_IC D_IMG_	<b>2.2.1 Authentication Protocol</b>

ID	Description
356	
CCSS_IC D_IMG_ 357	Communication shall be through a VPN tunnel.
CCSS_IC D_IMG_ 5	<b>3. 3 Interfaces</b>
CCSS_IC D_IMG_ 137	These requirements detail the interface between CCSS and the Away Agency for retrieving the image from away agency.
CCSS_IC D_IMG_ 6	<b>3.1 3.1 UFM Get Image Request Web Service Interface</b>
CCSS_IC D_IMG_ 435	Get Image Request Web Service Interface will provide an ability for CCSS to request images specific to specified UFM ID.
CCSS_IC D_IMG_ 136	<p><b>Provider:</b> Away Agency</p> <p><b>Consumer:</b> CCSS</p> <p><b>Trigger:</b> CCSS makes a request to get image(s) for the UFM.</p>
CCSS_IC D_IMG_ 444	<p><b>Normal Processing</b></p> <p>If away agency successfully locates the best image for the specified UFM, away Agency will then return an <b>Image Attachment</b> of best known image in the form of a byte array of .jpg-formatted image to CCSS.</p> <p>In case if the specified UFM ID belongs to ETC UFM (Valid Transponder UFM) then away agency would return byte array of .jpg-formatted roadside images retrieved from the lane Image Repository and will not be the best known image as ETC UFM images will not be reviewed at the away agency back office.</p>
CCSS_IC D_IMG_	<b>3.1.1 Exception Handling</b>

ID	Description		
445			
CCSS_IC D_IMG_ 446	<p>The exception-handling scheme consists of exceptions that are defined as part of the WSDL for each web service – in the WSDL, these are denoted as faults. Each exception type indicates a specific type of error that has occurred during execution of the web service call. An exception may optionally include a string payload that contains a brief human-readable description of the cause of the exception, which may be logged for later review and diagnostic use. Successful completion of the request results in no exception but, in most cases, includes a result code.</p> <p><b>Table</b> below contains a list of each exception type available, which web service(s) and provider(s) can raise it, and a brief description of what may cause it to be raised.</p>		
CCSS_IC D_IMG_ 447	<i>3.1.1.1 Web Service Exception Types</i>		
CCSS_IC D_IMG_ 448	<b>Exception</b>	<b>Raised By (Provider)</b>	<b>Description</b>
	Recoverable Fault	Get Image Request	<p>If the away agency is unable to process the request due to a transient or temporary condition (connection between Host and its database went down, etc.), it returns a “recoverable fault” to the CCSS. The CCSS may then choose to re-queue the request for submittal within configurable time period.</p> <p>If no images are available, then after series of configurable attempts, the CCSS will cease further attempts and log the fault message.</p>



ID	Description										
	Unrecoverable fault	Get Image Request	If the away agency is unable to process the request due to invalid arguments supplied (UFM token does not exist in the database, or database returns no image results) or some other fatal condition whereby having the CCSS resend the transaction would be inappropriate, it returns an “unrecoverable fault” to the CCSS. The away agency will then log the fault message and the away agency will make request ineligible for re-submittal to the Host.								
CCSS_IC D_IMG_ 449	<b>3.1.2 Web Service Layout</b>										
CCSS_IC D_IMG_ 450	<b>Service Summary Table</b>										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Interface</th> <th style="width: 25%;">Provider</th> <th style="width: 25%;">Consumer</th> <th style="width: 25%;">Timing constraint</th> </tr> </thead> <tbody> <tr> <td>Get Image Request</td> <td>Away Agency</td> <td>CCSS</td> <td>1000 milliseconds</td> </tr> </tbody> </table>			Interface	Provider	Consumer	Timing constraint	Get Image Request	Away Agency	CCSS	1000 milliseconds
Interface	Provider	Consumer	Timing constraint								
Get Image Request	Away Agency	CCSS	1000 milliseconds								
CCSS_IC D_IMG_ 406	<p>The data elements included in the UFM Get Image Request are provided below. Right click on the icon and open as ‘Worksheet Object’.</p> <div style="text-align: center;">               Image Request.xlsx         </div>										

---

ID	Description

# **Appendix C4**

POSI List

# Operational Back Office System

## Appendix C4 – POSI List

### Posi List

Here is a sample of the POSI list (no account ID)

000020110110010201NNN  
000020130110010201NNN  
000020140110010201NNN  
000020180110010202NNN  
000020200110010201NNN  
000020210110010201NNN  
000020220110010201NNN  
000020230110010201NNN  
000020240110040201YNN  
000020250110010201NNY  
000020260110010202NNN  
000020280110010201NNN  
000020290110010201NNN  
000020320110010201NNN  
000020330110010201NNN  
000020340110010201NNN  
000020350110010201NNN  
000020360110010201NNN  
000020370110010201NNN  
000020380110040201YNN  
000020390110010201NNN  
000020410110010201NNN  
000020420110040201YNN  
000020430110010201YNN  
000020440110010201NNN  
000020470110010201NNN  
000020480110010201YNN  
000020490110010201NNN  
000020500110010201NNN  
000020510110010201YNN  
000020520110040201YNN  
000020530110010201NNN  
000020540110010201NNN

### Field Description

- The first 12 digits are the transponder ID.
- The next 2 digits are for tag status
- The next 2 digits are for tag class
- The next 2 digits are for revcode

## **Appendix C5**

CCSS Vector – FLDOT

Get Demographics Interface v 4.0

# Florida Centralized Customer Service System

Vector - FLDOT  
Get Demographics

*Conduent Confidential*

November 18<sup>th</sup>, 2018

Version 4.0

## Submittal/Transmittal

From	Mayur Jain (301) 820-4346 Conduent Business Services, Public Sector Business Group Transportation Services 12410 Milestone Center Drive Germantown MD 20876
Date of Submission:	November 18 <sup>th</sup> , 2018
Contract Number:	FLDOT Agreement # BE087
Contract Title:	Florida Centralized Customer Service System (CCSS)
Submittal Description:	VECTOR – FLDOT Collection Interface
Submittal File Name:	FL CCSS Get Demographics Interface_R4.docx
Schedule Line Item	N/A
No. Pages (w cover):	7
Action Requested	Review and approve
Comments	

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## Version History

Version Number	Date	Description of Changes	Author
1.0	01-30-2017	Extracted Interface description from SDDD Section 8 Invoice Management	Anand Seetharaam
2.0	10-30-2017	Added additional fields requested by THEA.	Anand Seetharaam
3.0	08-02-2018	New column added to identify Mandatory v/s Optional fields.	Anand Seetharaam
4.0	11-18-2018	Below column definitions changed from Mandantory to Optional. <ul style="list-style-type: none"> <li>• country</li> <li>• vehicleMake</li> <li>• vehicleModel</li> <li>• vehicleYear</li> <li>• accountType</li> <li>• gender</li> </ul>	Anand Seetharaam



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# 1 Introduction

The Demographic SOAP service provides customer demographic details associated with the account number provided in the request. The UFM ID will be used as secondary authentication process to confirm the transaction was processed to the provided account and on confirmation the response is sent back to the requestor. This service can be used by THEA to get demographic information only for accounts escalated to THEA collections.

## 1.1 Request Details

**Table 1-1: Request Details**

Parameter	Description
AccountNumber	Customer account number
UFM ID	A unique number that is assigned to each transaction received

## 1.2 Response Details

**Table 1-2: Response Details**

Parameter	Description	Mandatory (or) Optional
accountNumber	Customer account number	Mandatory
customerName	The primary account holder of the account	
firstName	First name of the primary account holder	Optional
middleName	Middle name of the primary account holder	Optional
lastName	Last name of the primary account number	Mandatory
customerAddress	The mailing address on the account	
address1	Address Line1	Mandatory
address2	Address Line 2	Optional
city	City	Mandatory
state	State (2 character code)	Mandatory
country	Country (3 character code)	Optional
zip	ZIP Code (6 character – support USA and Canada)	Mandatory
zipPlus	ZIP Plus code (4 character)	Optional
Vehicle Info		
vehicleColor	Vehicle Color	Optional
vehicleJurisdiction	Vehicle Jurisdiction	Mandatory
vehicleMake	Vehicle Make	Optional
vehicleModel	Vehicle Model	Optional
licensePlateNumbe	License Plate Number	Mandatory

Parameter	Description	Mandatory (or) Optional
vehicleIDNumber	Vehicle ID Number	Optional
vehicleYear	Vehicle Year	Optional
AccountInfo		
accountType	Account Type (PRIVATE, BUSINESS, COMMERCIAL, PVIDEOUNREG)	Optional
driverLicenseNumber	Driver's License	Optional
driverLicenseStat	Driver's License	Optional
dateOfBirth	Driver DOB	Optional
gender	Driver Gender	Optional
companyName	Company Name	Optional
emailAddress	Primary email address on the account	Optional
phoneNumber	Mobile Phone number (if not available day phone number will be provided)	Optional
errorCode	Response code for success or failure. 0 – success 1 – Account not found 2 – UFM ID and Account do not match 9 – Unable to process the request	Mandatory
errorDesc	Description of the error	Optional

Note: If Optional fields are unavailable, then response will include NULL field tag, while other information will still be present.

If Mandatory fields are unavailable, then response will include Mandatory Field <Field Name> is not available.

## **Appendix C6**

CCSS Recall File

# Operational Back Office System

## Appendix C6 – CCSS Recall File

The CCSS Recall file is created daily by the OBOS to inform the CCSS of those transactions that should be recalled. Identification of the of the transaction is via UFM ID and account ID. Because the account ID is obtained from a CCSS amendment, a transaction must have received at least one CCSS amendment in order to include the account ID. If the account ID is not available a zero (0) is used instead.

Note that the CCSS Recall File may be populated from two different sources.

1. From the RTCS image review function as described in Appendix B – RTCS-OBOS ICD Overview
2. From manual interaction as described in the SOW Section 5.1.1 Transaction Controls

Both inputs contribute to the file content. The OBOS shall ensure that the file does not contain duplicates.

### Form of file

File Name:

“plate\_misread\_YYYYMMDD.txt” (YYYYMMDD represent the date that the file is created)

File Data:

Field Name	Description/Values
Ufmid	19 Char integer, no leading zeros
accountID	10 Char integer, no leading zeros

### Example File (two recalls the second with no account ID)

```
plate_misread_20240718.txt  
594966012,20140056,623457891,0
```

### No Transactions to Recall (example for July 19, 2024)

If there are no transactions to recall the daily CCSS Recall file will have the following form.

```
plate_misread_20240719.txt  
UFMID,ACCOUNT_ID
```

### Amendment Response

In response to a recalled transaction the CCSS will send a FARE\_ADJ amendment with a reason code of UFM\_RECALL for each recalled transaction.

## **Appendix D**

THEA Collections/OBOS ICD

# **THEA Collections / OBOS ICD**

**For Tampa Hillsborough Expressway Authority**

**February 25<sup>th</sup> 2024**

**Version 3.0**



## Revision History

### Document History

Date	Version	Author	Summary of Changes
03/15/18	1.0	Erica Myers	Initial version created
06/06/18	1.1	Erica Myers	Add additional TBD section info
08/03/18	1.2	Erica Myers	Changed "Firstname" as an optional field in the Get_Demographics file
09/04/18	1.3	TK Lee	Updated UFM Recall Responses
09/11/18	1.4	TK Lee / Erica Myers	Added "Timeout" response code / added black out period message
12/10/18	1.5	TK Lee	Added Response Error code 16
11/15/19	1.6	Daniel Kim	Field length in "Demographics"
01/17/20	1.7	Miguel Roman	Added Reg_Expir to "Demographics"
02/12/20	1.8	Miguel Roman	Updated UFM Reconciliation to include HH:MM:SS in the activity date field
02/12/20	1.8	Rafael Hernandez	CPA's proposed change was approved by Scott McDonald (TransCore). Rafael changed the document name to THEA_CPA Interface Control Document ICD
08/30/21	1.9	Miguel Roman	Updated document references of CPA/ETAN to VIP. Added Nixie to "Demographics"
07/xx/22	2.0		Add "Misread" interface
01/30/24	3.0	THEA	Combine with Reg Stop and Release

### Document Participants

The following people participated in the development and final version of this document:

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# 1 Purpose

---

The purpose of this document is to outline the strategy and technical requirements for the exchange of data among the various entities required to support the collection of tolls that could not be obtained via the Florida Turnpike Enterprise (FTE) Centralized Customer Service System (CCSS) posting or invoice process. The entities involved are:

- THEA Collections agency
- THEA Operational Back Office System (OBOS)
- FTE CCSS
- Florida Department of Highway Safety and Motor Vehicles (FLHSMV)

## 1.1 Overview of Daily Transaction Processing

Each day, the FTE CCSS will send new “Return to Original Agency” (RTOA) amendments with a reason code “LEVELOFESC” to THEA’s OBOS. This amendment indicates that the registered owner of the vehicle did not respond to either invoice sent by the CCSS for payment of a THEA toll. For each of these Amendments the OBOS will perform multiple checks on the transaction including verification that at least two invoices had been sent to the customer. If these checks pass, the OBOS will initiate a Get Demographics web service call to the CCSS for the RTOA transaction account information.

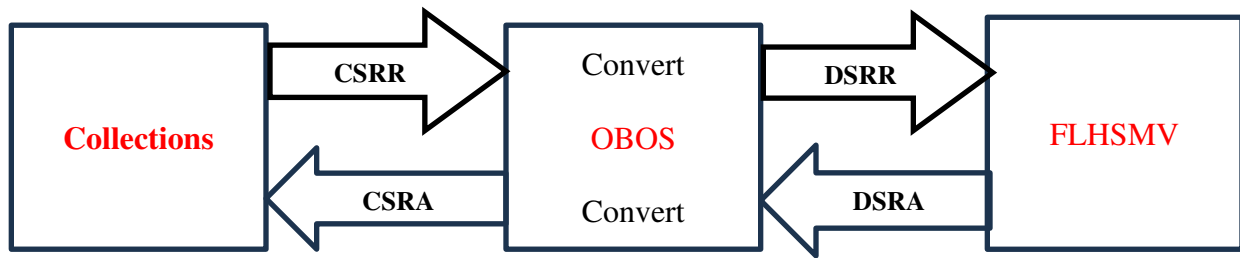
The result of the Get Demographics request (i.e., “the Demographics”) are sent from the OBOS to a Collections hosted Web Server. Included in the Demographics is an account number assigned by the CCSS for the associated license plate. If the account number does not exist in the Collections system, a new account will be established. Upon a successful transmission of the Demographics file, the OBOS will send the Uniform Financial Message (UFM) transaction, including the account number and image location, associated with the Demographics file, to the Collections Web Server. Collections will match the CCSS Account number listed in the UFM to the correct Account within the Collections system. Using the Retrieve Image ICD, Collections will retrieve and store the image associated with the account as required for noticing. When a payment (full or partial) is received, Collections will send a reconciliation API message to the OBOS. If payment is not received after two notices Collections will initiate the Registration Stop process for those vehicles registered in Florida.

Important note: The web service exchange will have a daily black out period from 11:30 pm – 1:30 am EST. During this time, Collections will run the nightly noticing processes.

## 1.2 Overview of Daily Registration Stop and Release Process

THEA will allow Collections to initiate requests to issue vehicle Registration Stops for unpaid tolls at the Florida’s FLHSMV. Concurrently, for any account that had been placed on Registration Stop and payment has been received, Collections will issue a Registration Release request to the OBOS. Registration Stops and Registration Releases are sent from Collections to the OBOS via SFTP once per day in a “Collections Stop/Release Request” (CSRR) daily batch file for processing between the hours of 2 AM and 5 AM Eastern time.

The OBOS will convert the records in the CSRR file into FLHSMV format and deliver these records in a “DMV Stop/Release Request” (DSRR) file between the hours of 5 AM and 11:30 AM Eastern time to the Florida FLHSMV. The FLHSMV will respond with a “DMV Stop/Release Acknowledge” (DSRA) file indicating the disposition of each request. The OBOS will in turn re-convert this file into a “Collections Stop/Release Acknowledge” (CSRA) file and send it to Collections for processing and updating the status of each associated account. Flow of the above files is shown below.



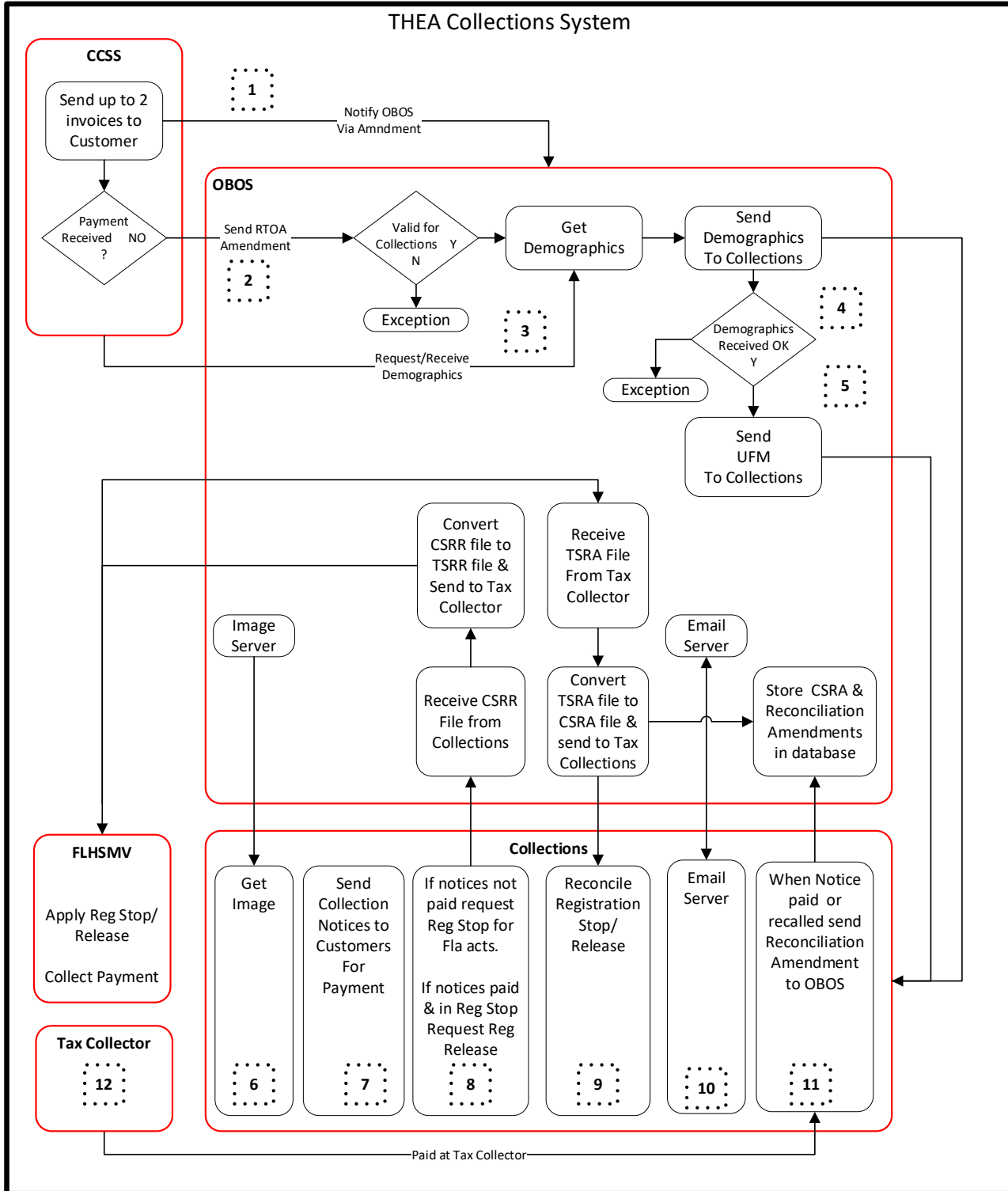
Once the accounts have been updated, Collections will initiate the applicable collection notice type for those accounts that have passed or failed the placement of the vehicle registration hold procedure. Accounts that failed the vehicle registration hold procedure shall not receive collection notice(s) with information regarding vehicle registration holds. Instead, those accounts shall receive collection notices used for non-Florida accounts.

It is also possible for customers whose vehicle's registration is in "hold" status, to pay the "release" fee directly at a FLHSMV office. In this case the subsequent release information is communicated by the FLHSMV directly to the Collections agency and not to the OBOS. The particulars of that interface are not a subject of this document as it does not involve the OBOS. However, the fact that the Collections account is no longer in Registration Stop status is communicated to the OBOS via the CSRR file. This allows the OBOS update the status of the transaction.

## 2 Collections Data Flow

### 2.1 Data Exchange Flow Diagram

The diagram below shows the flow of data as discussed in Sections 1.1 and 1.2 above.



## 2.2 Flow Narrative

Following is a description of each of the numbered processes in the flow diagram.

- 1) CCSS sends invoices to Customers, in State and out of State, who have not paid toll and whose name and address (demographics) are found. The OBOS is notified via amendment, of each invoice sent.
- 2) If payment has not been received by the CCSS within a configurable time period after the second invoice has been issued, the CCSS will send an RTOA amendment with reason code "LEVELOFESC" to the OBOS.
- 3) The OBOS will research previous activity associated with the transaction including assuring that two invoices had been sent to the customer. If the OBOS determines that the transaction is valid for collections it will send a "Get Demographics" request to the CCSS which will respond with the Demographics previously collected for invoicing.
- 4) The OBOS will send the Demographics information to Collections to start the collections process.
- 5) Upon receiving confirmation from Collections that the Demographics information was accepted and applied to a new or existing collections account, the OBOS will send the original UFM information (after appending CCSS account number and image location) to Collections.
- 6) Using information supplied in the UFM, Collections will retrieve the license plate image associated with the transaction. The image will be put on the notices sent to the customers.
- 7) Using the license plate image and information from the UFM and demographics, Collections will send notices of toll due to the registered owner of the vehicle. The OBOS is not notified of issued notices.
- 8) If notices are not paid after some time, Collections will request that a DMV registration Stop be placed on those vehicles registered in Florida. In addition, if payment is received for any collection account that is already in registration Stop status, Collections will issue a Stop release request for that vehicle. Registration Stop and Release request records have the same structure, differing only in the record type and are put into one daily "Collections Stop/Release Request" (CSRR) file which is transferred to the OBOS via SFTP. This file is picked up by the OBOS, converted to FLHSMV format (DSRR), and sent via SFTP to the FLHSMV.
- 9) The FLHSMV will send a daily DSRA file to the OBOS indicating whether each Stop or Release request was granted. The OBOS will then convert the DSRA file to a CSRA file, store the results in the transaction database and send it to Collections where it is used to confirm the status of each affected account.
- 10) The exchange of registration Stop and Release files between Collections and the OBOS is controlled via e-mail as described in Sections 2.3.4 and 2.3.5 below.
- 11) When a notice is paid, recalled, or reversed, Collections will send a reconciliation message to the OBOS where it is stored in the transaction database.
- 12) The state of Florida allows for registration stop payments to be made in person at a FLHSMV office. When this happens the registration stop is released and this information is sent directly from the FLHSMV to Collections, not through the OBOS. This release is communicated to the OBOS in the next CRSA file.

## 2.3 Communication Requirements

The following sections describe the communications and controls between the entities involved in the THEA collections system.

### 2.3.1 OBOS/CCSS

The following information is communicated between the OBOS and CCSS via Web Services using a SOAP API and XML formatting:

- CCSS -> OBOS: RTOA Amendment
- OBOS -> CCSS: Get Demographics
- CCSS -> OBOS: Demographics (response to Get Demographics request)

### 2.3.2 OBOS/Collections Transactions

The following information is communicated between the OBOS and Collections via Web Services using a REST API and JSON formatting:

- OBOS -> Collections: Demographics
- OBOS -> Collections: UFM
- OBOS -> Collections: RECALL
- Collections -> OBOS: Reconciliation files
  - RECALLED\_FROM\_COLLECTIONS
  - PAID\_IN\_FULL\_FROM\_COLLECTIONS
  - PAID\_PARTIAL\_FROM\_COLLECTIONS
  - PMT\_REVERSAL\_FROM\_COLLECTIONS

### 2.3.3 OBOS/Collections Retrieve Image

The current command used to retrieve and image from the OBOS is as follows:

```
curl --cookie-jar cookies.txt -d 'credential_0=benedinif&credential_1=<password>&destination=../ic/'
http://10.XX.2.100/thea/ic/LOGIN
```

### 2.3.4 Collections/OBOS Stop & Release files

The following files are transferred via SFTP as indicated:

- Collections -> OBOS: CSRR (Collections Stop/Release Request file)
  - File Name:
  - OBOS Location:
  - Collections Send Time: 2:00 AM to 5:00 AM Eastern Time
  - OBOS Pickup Time: Start at 5:30 AM Eastern Time
  - No file Available email
    - Source: IC@tampa-xway.com
    - Destination: [ops.thea@valorvip.com](mailto:ops.thea@valorvip.com)
      - Cc [Frederick.pekala@tampa-xway.com](mailto:Frederick.pekala@tampa-xway.com)
      - Cc [theatollops@tampa-xway.com](mailto:theatollops@tampa-xway.com)
      - Cc [Emma.Antolinez@tampa-xway.com](mailto:Emma.Antolinez@tampa-xway.com)



- Subject: INFO: Task LoadFileFromDMV, Agency FLHSMV - No files to process.
- Content: Blank
  
- OBOS -> Collections: CSRA (Collections Stop/Release Acknowledge file)
  - File Name:
  - Collections Location:
  - OBOS Send Time:
  - Collections Pickup Time:
  - No file Available email
    - Source: Collections; Address: TBD
    - Destination: OBOS; Address: TBD
    - Subject: TBD
    - Content: TBD

### 2.3.5 FLHSMV/OBOS Stop & Release files

The following files are transferred via SFTP as indicated:

- OBOS -> FLHSMV: DSRR (DMV Stop/Release Request file)
  - File Name: YYYYMMDD\_FromETAN.txt
  - FLHSMV Location:
  - OBOS Send Time: 5 AM to 11:30 AM ET
  - FLHSMV Pickup Time: 11:30 AM to 12:30 PM ET
  - No file Available email
    - Source: FLHSMV; Address: TBD
    - Destination: OBOS; Address: TBD
    - Subject: TBD
    - Content: TBD
  
- HSMV -> OBOS: DSRA (DMV Stop/Release Acknowledge file)
  - File Name: YYYYMMDD\_ToETAN.txt
  - Collections Location:
  - DHDMV Send Time:
  - OBOS Pickup Time:
  - No file Available email
    - Source: OBOS; Address: TBD
    - Destination: FLHSMV; Address: TBD
    - Subject: TBD
    - Content: TBD

### 2.3.6 Manual Hold Request Processing

If an error is returned on the original submission file, an individual transaction, or a request is received from

THEA; Collections will have the ability to manually request a registration hold. Manual requests for Registration Holds will be added to the daily file containing automated hold requests and processed the following day.

### **2.3.7 Manual Release Request Processing**

If an error is returned on the original submission file, an individual transaction, or a request is received from THEA, who will have the ability to manually release a registration hold. Manual releases will be added to the daily file containing the automated release requests and processed the following day.

## 3 Web Services Data Structures

### 3.1 OBOS to Collections

#### 3.1.1 Demographics

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"acct_info"
acct_id	Integer	Y	Customer account number
firstname	String(40)		First name of the primary account holder
middlename	String(40)		Middle name of the primary account holder
lastname	String(60)	(Y)	Only one of "lastname" or "company" is required.
address1	String(35)	Y	Address Line1
address2	String(35)		Address Line 2
city	String(30)	Y	City
state	String(2)	Y	State (2 character code)
country	String(3)		Country (3 character code)
zip	String(6)	Y	ZIP Code (6 character – support USA and Canada)
zipplus	String(4)		ZIP Plus code (4 character)
nixie	String(11)		Nixie Status for address (VIOLADDR, SKIPTRACING, MAILING)
lpn	String(10)	Y	License Plate Number
vehicle_state	String(2)	Y	Vehicle State
reg_expir	Date		Registration Expiration Date (MM/DD/YYYY)
vehicle_color	String		Vehicle Color
vehicle_make	String		Vehicle Make
vehicle_model	String		Vehicle Model
vehicle_year	String		Vehicle Year
vehicle_id	String		Vehicle ID Number
acct_type	String		Account Type (PRIVATE, BUSINESS, COMMERCIAL, PVIDEOUNREG)
dl_number	String		Driver's License
dl_state	String		Driver's License
dob	Date		Driver's Date of Birth (MM/DD/YYYY)
gender	String		Driver's Gender
company	String(60)	(Y)	Only one of "lastname" or "company" is required.
email	String(100)		Primary email address on the account
phone	String(15)		Mobile Phone number or day phone if mobile not available

Example:

```
{
  "file_type": "acct_info",
  "acct_id": 20140056,
  "firstname": "TIFFANY",
  "midname": "",
  "lastname": "CRANE",
  "address1": "590 CALIBRE CREST PKWY",
  "address2": "",
  "city": "ALTAMONTE SPRINGS",
```

```

"state": "FL",
"country": "USA",
"zip": "32714",
"zipplus": "1234",
"nixie": "VIOLADDR",
"lpn": "J409BI",
"vehicle_state": "FL",
"reg_expir": "04/15/2020",
"vehicle_color": "BLUE",
"vehicle_make": "ACURA",
"vehicle_model": "ILX",
"vehicle_year": "2013",
"vehicle_id": "",
"acct_type": "PRIVATE",
"dl_number": "",
"dl_state": "",
"dob": "05/25/1982",
"gender": "",
"company": "",
"email": "tcrane@conduent.com",
"phone": "1234567890"
}

```

### 3.1.2 Demographics Response Data Format

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"acct_info"
result_code	String	Y	
message	String	Y	
acct_id	String	Y	Same as the Request data
error_field	Array		Optional list depending on "result_code"
field_name	String		Name of the field which has wrong data
error_code	String		Error reason for the field

Success Example:

```

$VAR1 = {
  'file_type' => 'acct_info',
  'result_code' => '200',
  'error_field' => [],
  'acct_id' => 20140056,
  'message' => 'OK'
};

```

Failed Example:

```

$VAR1 = {
  "file_type":"acct_info",
  "result_code":"403",
  "message":"Validation failed",
  "acct_id":20140056,

```

```

"error_field": [{"field_name": "state", "error_code": "14"},
                 {"field_name": "country", "error_code": "14"}
];

```

### 3.1.3 UFM

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"asso_ufm"
acct_id	Integer	Y	Customer account number
ufm_id	Integer	Y	UFM ID number
trans_date	Date	Y	MM/DD/YYYY
trans_time	Time	Y	HH:mm:ss
invoice1_id	String(20)	Y	
invoice2_id	String(20)	Y	
toll_plaza_name	String		
toll_plaza	String(6)	Y	
lane_id	String(2)	Y	
vehicle_class	Integer(2)	Y	
indicated_toll	Integer	Y	Toll amount (unit: cent)
actual_toll	Integer	Y	Prior paid amount (unit: cent)
amend_type	String		
plate_chars	String(10)	Y	
plate_state	String(2)	Y	
plate_type	String		
plate_type_suffix	String		
image_name	String		

Example:

```

{
  "file_type": "asso_ufm",
  "acct_id": 20140056,
  "ufm_id": 123456789,
  "trans_date": "03/22/2018",
  "trans_time": "18:45:52",
  "invoice1_id": "INV123456789",
  "invoice2_id": "INV014360079",
  "toll_plaza_name": "",
  "toll_plaza": "101720",
  "lane_id": "01",
  "vehicle_class": 2,
  "indicated_toll": 195,
  "actual_toll": 125,
  "amend_type": "TRANSACTION_RETURNED_TO_ORIGINATING_AGENCY",
  "plate_chars": "J409BI",
  "plate_state": "FL",
  "plate_type": "STATE",
  "plate_type_suffix": "WT",
  "image_name": "101765_65S_102590F92B80068_11.jpg"
}

```

}

### 3.1.4 UFM Response Data Format

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"asso_ufm"
result_code	String	Y	
message	String	Y	
acct_id	String	Y	Same as the Request data
error_field	Array		Optional list depending on "result_code"
field_name	String		Name of the field which has wrong data
error_code	String		Error reason for the field

Successful Example:

```
$VAR1 = {
  'file_type' => 'asso_ufm',
  'result_code' => '200',
  'error_field' => [],
  'acct_id' => 20140056,
  'message' => 'OK'
};
```

Failed Example:

```
$VAR1 = {"file_type":"asso_ufm",
  "result_code":"403",
  "message":"Validation failed",
  "acct_id":20140056,
  "error_field":[{"field_name":"plate_chars","error_code":"12"},
    {"field_name":"plate_state","error_code":"12"}]
}
```

### 3.1.5 Recall

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"recall"
acct_id	Integer	Y	Customer account number
ufm_id	Integer	Y	UFM ID number
txn_date	Datetime	Y	YYYY-MM-DD HH:mm:ss
agency	String(10)		
transponder	String(11)		
lic_plate	String(10)	Y	
state	String(2)	Y	
event_date	Datetime	Y	YYYY-MM-DD HH:mm:ss
plaza	String(6)	Y	
lane	String(10)	Y	
avc	Integer	Y	
disc_fare	Integer	Y	
full_fare	Integer	Y	
ind_rev	Decimal	Y	
act_rev	Decimal	Y	
thea_id	String(20)	Y	
previous	String(40)		
current	String(40)		

Example:

```
{
  "file_type": "recall",
  "acct_id": 20140056,
  "ufm_id": 123456789,
  "txn_date": "2017-11-20 14:24:34",
  "agency": "",
  "transponder": "",
  "lic_plate": "J409BI",
  "state": "FL",
  "event_date": "2018-03-14 10:30:21",
  "plaza": "101720",
  "lane": "60S",
  "avc": 2,
  "disc_fare": 166,
  "full_fare": 191,
  "ind_rev": 0,
  "act_rev": 1.66,
  "thea_id": "5616E438004E",
  "previous": "",
  "current": ""
}
```

### 3.1.6 Recall Response Data Format

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"recall"
result_code	String	Y	
message	String	Y	
acct_id	Integer	Y	Same as the Request data
error_field	Array		Optional list depending on "result_code"
field_name	String		Name of the field which has wrong data
error_code	String		Error reason for the field

Successful Example:

```
$VAR1 = {"file_type":"recall",
        "result_code":"200",
        "message":"OK",
        "acct_id":20140056,
        "error_field":[]
};
```

Failed Example:

```
$VAR1 = {"file_type":"recall",
        "result_code":"414",
        "message":"UFM not found",
        "acct_id":20140056,
        "error_field":[]
};
```



## 3.2 Collections to OBOS

All previous day transaction activity is reported in the transaction reconciliation. The “Amendment Type” represents the activity completed (Paid in full, partially paid, and canceled).

Amendment Types/Purpose:

- **RECALLED\_FROM\_COLLECTIONS:** Any UFM recalled or canceled in the system on the previous day. This is both systematic recalls and CSR manual cancellation. The “Actual Toll” amount represents the toll amount canceled/recalled.
- **PAID\_IN\_FULL\_FROM\_COLLECTIONS:** Any UFM that was paid in full in the system on the previous day. The “Actual Toll” amount represents the toll amount paid (should match the “indicated toll” amount).
- **PAID\_PARTIAL\_FROM\_COLLECTIONS:** Any UFM that was partially paid in the system on the previous day. The “Actual Toll” amount represents the partial toll amount paid.
- **PMT\_REVERSAL\_FROM\_COLLECTIONS :** Any UFM that was paid in the system previously but later reversed due to NSF, Chargeback, etc.

### 3.2.1 Transaction Reconciliation

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	“reconciliation”
trans_date	Date		Transaction Date – Original Trip Date(MM/DD/YYYY)
trans_time	Time		Transaction Time – Original Trip Time(HH:mm:ss)
ufm_id	Integer	Y	Transaction UFM ID
invoice1_id	String(20)		Invoice 1 ID
invoice2_id	String(20)		Invoice 2 ID
toll_plaza_name	String(50)		Toll Plaza Name
toll_plaza	String(6)		Toll Plaza
lane_id	String		Lane ID
vehicle_class	Integer		Vehicle Class
indicated_toll	Integer	Y	Indicated Toll – Original toll Amount Reported to VIP (unit: cent)
actual_toll	Integer	Y	Actual Toll – Toll amount of “Amendment Type” activity (i.e. if partially paid, only the paid amount will report) (unit: cent)
amend_type	String(50)	Y	Amendment Types: RECALLED_FROM_COLLECTIONS PAID_IN_FULL_FROM_COLLECTIONS PAID_PARTIAL_FROM_COLLECTIONS PMT_REVERSAL_FROM_COLLECTIONS
plate_chars	String(10)		Plate Characters
plate_state	String(2)		Jurisdiction (LPN State)
plate_type	String		Vehicle Model
plate_type_suffix	String		Vehicle Year
activity_date	Date		VIP system activity date (MM/DD/YYYY HH:MM:SS)

Example:

```
{
  "file_type": "reconciliation",
  "trans_date": "10/19/2013",
  "trans_time": "21:29:24",
  "ufm_id": 12697832,
  "invoice1_id": "INV016428279",
  "invoice2_id": "INV017037052",
  "toll_plaza_name": "SR618 SELMON EXPY EAST MAIN WB",
  "toll_plaza": "101760",
  "lane_id": "2",
  "vehicle_class": 2,
  "indicated_toll": 175,
  "actual_toll": 175,
  "amend_type": "PAID_IN_FULL_FROM_COLLECTIONS",
  "plate_chars": "CBFM35",
  "plate_state": "FL",
  "plate_type": "",
  "plate_type_suffix": "",
  "activity_date": "3/14/2018 08:15:22"
}
```

### 3.2.2 Response Data Format

Parameter	Data Type (Max Len)	Required	Description
file_type	String	Y	"reconciliation"
result_code	String	Y	
message	String	Y	
ufm_id	Integer	Y	Same as the Request data
error_field	Array		Optional list depending on "result_code"
field_name	String		Name of the field which has wrong data
error_code	String		Error reason for the field

Success Example:

```
{
  "file_type": "reconciliation",
  "result_code": "200",
  "message": "OK",
  "ufm_id": "239857585"
}
```

Failed Example:

```
{
  "file_type": "reconciliation",
  "result_code": "402",
  "message": "Data out of range",
  "ufm_id": "239857585",
}
```

```

"error_field": [
  {"field_name": "invoice1_id", "error_code": "11"},
  {"field_name": "phone", "error_code": "13"}
]
}

```

### 3.3 Response and Response Error Code

#### 3.3.1 Response Codes

Code	Description
200	Success
401	Data Package missing
402	Data Package parsing failed
403	Validation failed
411	Account not found
412	Account and UFM not match
413	UFM already exists
414	UFM not found
491	Out of Service Time
499	Unknown/Other error

#### 3.3.1 Response Error Codes

Code	Description
11	Required Field missing
12	Required Field empty
13	Data type mismatch
14	Over-length data
15	Date Out of range
16	Actual is greater or equal to Indicated
99	Unknown/Other error

## 4 SFTP Data Structures

### 4.1 Collections to/from OBOS (CSRR, CSRA)

The chart below uses the following terms:

- SR = Stop Request
- RR = Release Request
- SA = Stop Acknowledge
- RA = Release Acknowledge

Field Name	Type	Length	Comment
County Location Code	Number	4	SR: 0351 RR: 0351 SA: 0351 RA: 0351
Transaction Type	Character	1	SR: A RR: D SA: A RA: D
License Plate #	Character Left Space Padded	10	SR: Plate # RR: Plate # SA: Plate # RA: Plate #
Vehicle Make	Character	5	SR: Blank RR: Blank SA: Blank RA: Blank
Admin Stop Date	Character	8	SR: YYYYMMDD (current date) RR: YYYYMMDD SA: YYYYMMDD (current date) RA: YYYYMMDD
Stop Type	Character	1	SR: T RR: T SA: T RA: T
Stop Number	Number	10	SR: Blank RR: Stop # SA: Stop # (success), Blank (error) RA: Blank
Filler	Character	30	SR: Blank RR: Blank SA: Blank RA: Blank
Edit Mask	Number	10	SR: Blank RR: Blank SA: Error Flags (zeros if success) (see section 4.3) RA: Error Flags (zeros if success) (see section 4.3)
Disposition	Character	1	SR: Blank RR: Blank SA: E = Error or Blank = Successful RA: E = Error or Blank = Successful
Flag	Character	3	SR: Blank RR: CTC = Cleared from Tax Collector Blank = CTC is not applicable SA: Blank RA: CTC = Cleared from Tax Collector Blank = CTC is not applicable

## 4.2 OBOS to FLHSMV (DSRR)

The following file is sent from the OBOS to the FLHSMV after converting to FLHSMV format from the CSRR file.

Element Number	Data Element Name And/ Or Description	From	Thru	Size	Elem. Char.	DATA VALUES
<i>DATA SENT TO HSMV BY CUSTOMER</i>						
1	COUNTY LOCATION CODE					
1.1	COUNTY	1	2	2	A/N	NUMERIC (RIGHT JUST)
	*** GET COUNTY FROM CONTACT ***					
1.2	AGENCY	3	4	2	A/N	NUMERIC (RIGHT JUST)
	*** GET AGENCY FROM CONTACT ***					
2	TRANSACTION TYPE	5	5	1	A/N	A, D, I
3	LICENSE PLATE NUMBER	6	15	10	A/N	CANNOT BE SPACES (LEFT ALPHNUMERIC (LEFT JUST) OR SPACES
4	VEHICLE MAKE (Optional / Obsolete)	16	20	5	A/N	(LEFT JUST) OR SPACES
5	ADMIN STOP DATE	21	28	8	A/N	CCYYMMDD
6	STOP TYPE	29	29	1	A/N	1, 2, 3, P, T, R, SPACES
7	STOP NUMBER	30	39	10	A/N	NUMERIC (LEFT JUST) OR SPACES
8	FILLER	40	80	41	A/N	MUST BE SPACES

Current FIELDNAMES = ("COUNTY", "AGENCY", "TTYPE", "PLATE", "MAKE", "STOPDATE", "STOCTYPE", "STOPNUM", "FILLER")

### 4.3 FLHSMV to OBOS (DSRA)

The following file is sent from the FLHSMV to the OBOS where it is converted to the CSRA format.

Element Number	Data Element Name And/ Or Description	From	Thru	Size	Elem. Char.	DATA VALUES
<b><i>DATA RETURNED TO CUSTOMER BY HSMV</i></b>						
1	DATA SENT TO HSMV BY CUSTOMER	1	29	29	A/N	N/A
2	STOP NUMBER	30	39	10	A/N	NUMERIC (LEFT JUST) or SPACES
3	FILLER	40	69	30	A/N	SPACES
4	EDIT MASK (ERROR FLAGS)					
4.1	LOCATION CODE ERROR	70	70	1	A/N	0 OR 1
4.2	TRANSACTION TYOE ERROR	71	71	1	A/N	0 OR 1
4.3	TAG NUMBER ERROR	72	72	1	A/N	0 OR 1, 2, 3
4.4	VEHICLE MAKE ERROR (Optional / Obselete)	73	73	1	A/N	0 OR 1
4.5	REPORT DATE ERROR	74	74	1	A/N	0 OR 1
4.6	STOP TYPE ERROR	75	75	1	A/N	0 OR 1
4.7	<b>MISSING REQUIRED STOP NUMBER</b>	<b>76</b>	<b>76</b>	<b>1</b>	A/N	0 OR 1
4.8	<b>STOP NOT FOUND</b>	<b>77</b>	<b>77</b>	<b>1</b>	A/N	0 OR 1
5	FILLER	78	79	2	A/N	0 OR 1
6	ERROR DISPOSITION	80	80	1	A/N	E OR SPACES
7	FLAG	81	83	3	A/N	CTC OR SPACES

"Data Sent to HSMV by Customer" is from the DSRR file.

Other field names are: "LOCERR", "TTERR", "TAGERR", "MAKEERR", "DATEERR", "STERR", "MISSTOPERR", "STOPNFERR", "DLERR", "STOPNAERR", "ERRDISP", CLRTAXCOLL"

Note there are two additional error codes (highlighted) than indicated in the DSRA file.

#### 4.4 FLHSMV Field Descriptions

Element Number	Data Element Name And/ Or Description	From	Thru	Size	Elem. Char.	DATA VALUES
<b><i>FIELD DESCRIPTIONS</i></b>						
1.1	COUNTY 01 THRU 99					DATA SENT
1.2	AGENCY 01 THRU 99					DATA SENT
2	TRANSACTION TYPE A = ADD D = DELETE I = TESTING					DATA SENT
5	ADMIN STOP DATE CC = CENTURY YY = YEAR MM = MONTH DD = DATE					DATA SENT
6	STOP TYPE 1 = PARKING VIOLATION 2 = TOLL VIOLATION 3 = PARKING VIOLATION P = PARKING VIOLATION T = TOLL VIOLATION					DATA SENT

Element Number	Data Element Name And/ Or Description	From	Thru	Size	Elem. Char.	DATA VALUES
	R= RED LIGHT CAMERA VIOLATION SPACES = PARKING VIOLATION					
7	STOP NUMBER <small>Stop number may only be sent with a transaction type of D or I; it is required when stop type equals R but optional for other stop types;</small>					DATA SENT
4	ERROR FLAGS 0 = NO ERROR 1 = ERROR 2 = Tag Not Found 3 = Duplicate Request					DATA RETURNED
6	ERROR DISPOSITION E = ERRORS IN EDIT MASK SPACES = NO ERRORS IN EDIT MASK					DATA RETURNED

# **Appendix E1**

NIOP ICD Appendix-B-

RELEASED 20220916



National Interoperability Interface Control Document - Appendix - B

Date	Modifications
10/18/2018	B. Jewell: Created from ICD.
11/8/2018	B. Jewell, M. Kolb: Added and populated Home and Away Agency columns and Notes.
11/25/2018	B. Jewell: Accepted revisions from R. Carrier.
4/13/2021	B. Jewell: Added NIOP Agency IDs 1001 - 1003.
9/16/2022	M. Kolb: Updates as follows: - 0048 flagged as Home and Away Agency. - Added NIOP Agency IDs 0080, 0088, 2529, 2530 and 2531. - Removed "n/a" entry for New Brunswick (Canada) Highway Corporation.

National Interoperability Interface Control Specification - Appendix B

NIOP Agency ID	Assigned NIOP Hub	Home Agency	Away Agency	Agency Description	Note
0002	9003		X	New Jersey Highway Authority (NJHA)	
0003	9003		X	New Jersey Turnpike Authority (NJTA)	
0004	9003	X	X	New York State Thruway Authority (NYSTA)	
0005	9003	X	X	Port Authority of New York & New Jersey (PANYNJ)	
0006	9003	X	X	Pennsylvania Turnpike Commission (PTC)	
0007	9003		X	South Jersey Transportation Authority (SJTA)	
0008	9003	X	X	MTA Bridges & Tunnels (MTAB&T)	
0009	9003		X	Delaware River Port Authority (DRPA)	
0010	9003	X	X	Virginia DOT (VDOT)	
0011				Highway 407, Canada	Has not indicated they are doing NIOP.
0013	9003		X	Peace Bridge, New York	
0015	9003	X	X	Illinois State Toll Highway Authority (ISTHA)	
0016	9003	X	X	Maryland Transportation Authority (MdTA)	
0017	9001	X	X	South Carolina DOT (SCDOT)	
0018	9003		X	New York State Bridge Authority (NYSBA)	
0019	9003	X	X	Delaware DOT (DeIDOT)	
0021	9003	X	X	Massachusetts DOT (MassDOT)	
0022	9003	X		New Jersey CSC (NJCSC)	
0024	9003	X	X	West Virginia Parkways Authority (WVPA)	
0025	9003		X	Delaware River and Bay Authority (DRBA)	
0026	9003	X	X	New Hampshire DOT (NH DOT)	
0027	9003		X	Burlington County Bridge Commission (BCBC)	
0028	9003	X		Maine Turnpike Authority (MeTA)	
0029	9003		X	Delaware River Joint Toll Bridge Commission (DRJTBC)	
0030	9003	X	X	Indiana Toll Road Concession Company (ITRCC)	
0031	9003	X	X	Ohio Turnpike and Infrastructure Commission (OTIC)	
0032	9003	X	X	Rhode Island Turnpike and Bridge Authority (RITBA)	
0033	9001	X	X	North Carolina Turnpike Authority (NCTA)	
0034	9001	X	X	Georgia State Road and Tollway Authority (SRTA)	
0035	9001	X	X	Florida Turnpike Enterprise (FTE)	
0036	9001	X	X	Central Florida Expressway Authority (CFX)	
0037	9001		X	Miami Dade Expressway Authority (MDX)	
0038	9001		X	Tampa Hillsborough Expressway Authority (THEA)	
0039	9001	X	X	Lee County Florida	
0040	9002	X	X	Texas DOT (TxDOT)	
0041	9002	X	X	North Texas Tollway Authority (NTTA)	
0042	9002	X	X	Harris County Toll Road Authority (HCTRA)	
0043	9002	X	X	Central TX Regional Mobility Authority (CTRMA)	
0044	9003	X	X	Skyway Concession Company (SCC)	
0045	9003	X	X	Louisville-Southern Indiana Ohio River Bridges (LSIORB)	
0046	9002	X	X	E-470 Colorado	
0047	9002		X	Northwest Parkway Colorado	
0048	9003	X	X	Minnesota DOT (MnDOT)	
0050	9002			Greater New Orleans Expressway Commission (Lake Pontchartrain)	
0051	9002			Louisiana DOT and Development (LADOTD)	
0054				Capufe, Mexico	Has not indicated they are doing NIOP.
0055	9002	X	X	Oklahoma Turnpike Authority	
0056	9002	X	X	Kansas Turnpike Authority	
0057				Puerto Rico Highway and Transportation Authority	Has not indicated they are doing NIOP.
0058	9004	X	X	Utah DOT (UDOT)	
0059	9003		X	Niagara Falls Bridge Commission	
0060	9003		X	Thousand Islands Bridge Authority	
0061				Halifax Dartmouth Bridge Commission	Has not indicated they are doing NIOP.
0066				Ti Corp (Canada)	Has not indicated they are doing NIOP.
0070	9002		X	Ft. Bend County Toll Road Authority	
0077	9004	X	X	Washington DOT (WashDOT)	
0080	9003	X	X	United Bridge Partners (UBP)	
0088	9003	X	X	Kane County Division of Transportation (KDOT)	
0101	9004	X	X	Bay Area Toll Authority (BATA)	

National Interoperability Interface Control Specification - Appendix B

NIOP Agency ID	Assigned NIOP Hub	Home Agency	Away Agency	Agency Description	Note
0103	9004	X	X	Transportation Corridor Agencies (TCA)	
0105	9004		X	Golden Gate Bridge, Highway and Transportation District (GGBHTD)	
0106	9004	X	X	Los Angeles County Metropolitan Transportation Authority (LA)	
0107	9004	X	X	Orange County Transportation Authority (OCTA)	
0108	9004	X	X	Riverside County Transportation Commission (RCTC)	
0109	9004	X	X	San Diego Association of Governments (SANDAG)	
0110	9004		X	Santa Clara Valley Transportation Authority (VTA)	
0111	9004		X	South Bay Expressway, LLC (SBX)	
0112	9004		X	Alameda County Transportation Commission (ACTC)	
0113	9004		X	San Francisco County Transportation Authority (SFCTA)	
0114	9004		X	San Bernardino County Transportation Authority (SBCTA)	
0115				Concession A25 S.E.C.	Has not indicated they are doing NIOP.
0116	9004	X	X	Port of Hood River (PoHR)	
0118				McAllen-Hidalgo & Anzalduas Bridges	Has not indicated they are doing NIOP.
1001	9002		X	LBJ/NTE/NTE 3a3b	Placeholder to reserve ID for future use.
1002	9002		X	DFW Regional TSA	Placeholder to reserve ID for future use.
1003	9002		X	NETRMA	Placeholder to reserve ID for future use.
2529		X	X	Blue Water Bridge (FBCL)	
2530		X	X	Blue Water Bridge (MDOT)	
2531		X	X	International Bridge Administration	

## **Appendix E2**

NIOP ICD Appendix C-

RELEASED 20240223

National Interoperability Interface Control Document - Appendix - C

Date	Modifications
18-Oct-18	B. Jewell: Created from ICD.
11/25/2018	B. Jewell: Accepted revisions from R. Carrier.
11/26/2018	<p>B. Jewell: Made the following revisions as suggested by M. Kolb.</p> <ul style="list-style-type: none"> <li>a. NIOP Tag Agency ID 127 – Removed. The cell should be blank since these are not 6C transponders and this might cause confusion in the future.</li> <li>b. General Note B - Removed.</li> <li>c. General Note C - Removed.</li> <li>d. General Note E - changed “NIOP/SSIOP HUB (Tvl) Tag Agency ID” to “NIOP Tag Agency ID” and changed “EZG Hub” to “EZIOP Hub”.</li> </ul> <p>Updated references.</p>
12/18/2018	<p>M. Kolb: Made the following revisions:</p> <ul style="list-style-type: none"> <li>a. NIOP Tag Agency ID 0050 - added Native 6C ID 451.</li> <li>b. Added NIOP Tag Agency ID value of 0062 to Southern Connector (was previously n/a).</li> <li>c. Added NIOP Tag Agency ID values 0119, 0120, 0121, 0122, 0124, 0125</li> <li>d. Added Native 6C ID 2306</li> </ul>
1/15/2019	<p>B. Jewell: Updated based on email from Bill Brownsburger on behalf of SRTA, as follows: SRTA would like to update their agency ID listings in the NIOP Appendix C listing of tag agency IDs. SRTA has already been assigned two tag agency IDs: 034 and 063. In the table, 034 was identified to be used for their SeGo tags (which haven't been issued for several years but are still on the road) and 063 for their 6C (which are the only tags SRTA currently issues). SRTA's 6C tags are their main tag population at this point. SRTA has been using agency ID 034 for all of their Southeast hub communications, and would prefer to keep this as their 'primary' tag Agency ID, to be used for their 6C tags. So the change essentially amounts to changing 034 to be their 6C tags and 063 to be their SeGo tags. This will not affect currently-implemented systems at all, as 034 is the only tag agency ID currently in use.</p>
5/30/2019	<p>M. Kolb: Made the following revisions:</p> <ul style="list-style-type: none"> <li>a. Added Native TDM IDs 120 and 125</li> <li>b. Added NIOP Tag Agency ID value of 0102</li> </ul>
10/17/2019	<p>M. Kolb: Made the following revisions: Added NIOP Tag Agency IDs 0070, 0071, 0099 and 0126 Assigned NIOP Tag Agency ID 0080</p>
11/22/2019	<p>B. Jewell: Made the following revision from B. Brownsburger: I'd like to get the Native 6C ID field (column E) for SRTA's 0034 agency code updated with the agency ID that's actually programmed into SRTA's 6C tags. That ID is decimal 321 (hex 141).</p>
2/5/2020	B. Jewell: Corrected Tag Agency ID 1101. Changed back from HCTRA to TxDOT.
2/18/2021	<p>M. Kolb: Made the following revisions:</p> <ul style="list-style-type: none"> <li>a) Populated FTE 6C Agency ID values of 64 and 65.</li> <li>b) Populated CFX 6C Agency ID value of 36.</li> <li>c) Reassigned NIOP Tag Agency ID 0014 to ISTHA as a second Agency ID.</li> </ul>
8/19/2022	<p>D. Hoffman: Made the following revisions:</p> <ul style="list-style-type: none"> <li>a) Populated NTTA 6C Agency ID values of 41, 53 &amp; 69.</li> <li>b) Populated NTTA TDM Agency ID values of 41, 53 &amp; 69.</li> <li>c) Populated NTTA SeGo Agency ID value 325 (0x0145) and ATA value "NTTA".</li> </ul>

National Interoperability Interface Control Document - Appendix - C

9/21/2022	<p>M. Kolb: Numerous changes. All updates highlighted in yellow. They include:</p> <ul style="list-style-type: none"> <li>- NIOP Tag Agency values populated/reserved: 0000, 0001, 0012, 0020, 0023, 0037, 0038, 0047, 0079, 0099, 0104, 0105, 0110, 0111, 0112, 0113, 0114, 0117, 0123, 0128, 0131, 0132, 0140, 0999, 2306, 2529, 2530, 2531, 4000, and 4080-4095</li> <li>- NIOP Tag Agency value 0062 changed to reserved.</li> <li>- Native TDM ID 14 removed. ISTHA does not expect to use that code for TDM transponders.</li> <li>- Native TDM ID 48 assigned to MnDOT. Program name updated to E-ZPass.</li> <li>- Native TDM ID values 41, 53 and 60 removed. NTTA does not expect to actually issue any TDM transponders.</li> <li>- Native 6C values populated as reserved by the 6C Coalition: 14, 15, 17, 28, 35, 55, 61, 79, 81, 82, 83, and 88</li> </ul>
7/18/2023	<p>M. Kolb (updates highlighted in yellow):</p> <ul style="list-style-type: none"> <li>- Reserved 6C IDs 3 and 22 for NJTA and NJCSC.</li> <li>- Added information on multiprotocol tags (Gentex ITM, NationalPass, RV TollPass and PocketPass) that could result in varying NIOP Tag Agency ID values.</li> <li>- Assigned 86 to MTAB&amp;T (second ID).</li> <li>- Assigned 170 to Windsor Detroit Borderlink Limited (WDBL).</li> <li>- Assigned 171 to Nassau County Bridge Authority (NCBA).</li> <li>- Assigned 195 to Plenary Group in Colorado.</li> <li>- OTA 6C Agency ID 55 moved to its own row.</li> <li>- Clarifying notes added for NIOP Tag Agency IDs 6, 16, 70 and 71.</li> </ul>
12/19/2023	<p>B. Jewell: Corrected the Reserved EZG Agency ID for Neology's 0117 NIOP Tag Agency ID.</p>
2/23/2024	<p>M. Kolb: NIOP Tag Agency ID 0085 assigned to Oregon Department of Transportation (ODOT)</p>

National Interoperability Interface Control Specification - Appendix C

NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
0000							000		Reserved	
0001							001		Reserved	
0002	E-ZPass	TDM	2				002	NJ	New Jersey Highway Authority (NJHA)	
0003	E-ZPass	TDM	3	3			003	NJ	New Jersey Turnpike Authority (NJTA)	6C has been reserved.
0004	E-ZPass	TDM	4				004	NY	New York State Thruway Authority (NYSTA)	
0005	E-ZPass	TDM	5				005	NY	Port Authority of New York & New Jersey (PANYNJ)	
0006	E-ZPass	TDM	6				006	PA	Pennsylvania Turnpike Commission (PTC)	See the multiprotocol tag entries below for additional clarifications.
0006 0120 0035  0064		TDM/6C/SeGo	6	120	2561 (0x0A01) for Serial Numbers in the 16M range  2570 (0x0A0A) For Serial Numbers in the 14.5-15M range		n/a		Gentex Integrated Toll Module (ITM)	The ITMs embedded in various vehicles contain three protocols with the SeGo region/agency value varying as shown. The NIOP Tag Agency ID output would depend on which protocol and what values were actually read from the device. A manifest can provided to interested parties that provides the details of Tag Agency ID/Tag Serial Number across each protocol for all ITMs.  The eventual routing of a transaction associated with an ITM would depend on the Home Agency ID specified in the TVL associated with the protocol Tag Agency ID and Tag Serial Number read.  Depending on protocol read in the lane, the appropriate NIOP Tag Agency ID should be selected.
0006 0035  0064	NationalPass RV Toll Pass	TDM/SeGo	6		2561 (0x0A01) for Serial Numbers in the 16M range  2570 (0x0A0A) For Serial Numbers in the 14.5-15M range		n/a			These transponders contain two protocols with the SeGo region/agency value varying as shown. The NIOP Tag Agency ID output would depend on which protocol and what values were actually read from the device. A manifest can provided to interested parties that provides the details of Tag Agency ID/Tag Serial Number across each protocol.  The eventual routing of a transaction associated with these transponders would depend on the Home Agency ID specified in the TVL associated with the protocol Tag Agency ID and Tag Serial Number read.  Depending on protocol read in the lane, the appropriate NIOP Tag Agency ID should be selected.
0004 0016 0035  0064	PocketPass	TDM/SeGo	4 16		2561 (0x0A01) for Serial Numbers in the 16M range  2570 (0x0A0A) For Serial Numbers in the 14.5-15M range		n/a			These SeGo transponders are paired with a Kapsch TDM transponder with the SeGo region/agency value varying as shown and the TDM agency value varying as shown. The NIOP Tag Agency ID output would depend on which protocol and what values were actually read from the device. A manifest can provided to interested parties that provides the details of Tag Agency ID/Tag Serial Number across each protocol.  The eventual routing of a transaction associated with these transponders would depend on the Home Agency ID specified in the TVL associated with the protocol Tag Agency ID and Tag Serial Number read.  Depending on protocol read in the lane, the appropriate NIOP Tag Agency ID should be selected.
0007	E-ZPass	TDM	7				007	NJ	South Jersey Transportation Authority (SJTA)	
0008	E-ZPass	TDM	8				008	NY	MTA Bridges & Tunnels (MTAB&T)	

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NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
0009	E-ZPass	TDM	9				009	NJ	Delaware River Port Authority (DRPA)	
0010	E-ZPass	TDM	10				010	VA	Virginia DOT (VDOT)	
0011	407ETR	TDM	11				011	Canada	Highway 407, Canada	
0012							012		Reserved for future E-ZPass expansion	Future use should be limited to Tag Serial # >= 65000.
0013	E-ZPass	TDM	13				013	NY	Peace Bridge, New York	
0014	E-ZPass	6C		14			014	IL	Illinois State Toll Highway Authority (ISTHA)	Second ID assigned to ISTHA going to be used only for 6C transponders.
0015	E-ZPass	TDM	15	15			015	IL	Illinois State Toll Highway Authority (ISTHA)	6C has been reserved.
0016	E-ZPass	TDM	16				016	MD	Maryland Transportation Authority (MdTA)	See the multiprotocol tag entries above for additional clarifications.
0017	Palmetto Pass	6C (formerly TDM and SeGo)	17	17	2568 (0x0A08)		017	SC	South Carolina DOT (SCDOT)	Currently issues 6C transponders. Historically, issued dual protocol (TDM/SeGo) and single protocol (TDM) transponders.
0018	E-ZPass	TDM	18				018	NY	New York State Bridge Authority (NYSBA)	Does not currently issue its own transponders.
0019	E-ZPass	TDM	19				019	DE	Delaware DOT (DelDOT)	
0020		TDM	20				020		Advantage I-75	Not sure they still issue transponders. Were never reciprocal.
0021	E-ZPass	TDM	21				021	MA	Massachusetts DOT (MassDOT)	
0022	E-ZPass	TDM	22	22			022	NJ	New Jersey CSC (NJCSC)	6C has been reserved.
0023		TDM	23				023	Canada	New Brunswick (Canada) Highway Corporation	Do not believe they ever actually issued any transponders.
0024	E-ZPass	TDM	24				024	WV	West Virginia Parkways Authority (WVPA)	
0025	E-ZPass	TDM	25				025	NJ	Delaware River and Bay Authority (DRBA)	
0026	E-ZPass	TDM	26				026	NH	New Hampshire DOT (NHDOT)	
0027	E-ZPass	TDM	27				027	NJ	Burlington County Bridge Commission (BCBC)	Does not currently issue its own transponders.
0028	E-ZPass	TDM	28	28			028	ME	Maine Turnpike Authority (MeTA)	6C has been reserved.
0029	E-ZPass	TDM	29				029	NJ	Delaware River Joint Toll Bridge Commission (DRJTBC)	
0030	E-ZPass	TDM	30				030	IN	Indiana Toll Road Concession Company (ITRCC)	
0031	E-ZPass	TDM	31				031	OH	Ohio Turnpike and Infrastructure Commission (OTIC)	
0032	E-ZPass	TDM	32				032	RI	Rhode Island Turnpike and Bridge Authority (RITBA)	
0033	Quick Pass	TDM/6C (formerly SeGo)	33	33	2567 (0x0A07)	NCTA	033	NC	North Carolina Turnpike Authority (NCTA)	NCTA segregates protocols by serial number range. As such, all three protocols can be mapped to a single Agency ID without the risk of overlapping. They no longer issue SeGo transponders.
0034	Peach Pass	6C		321			034	GA	Georgia State Road and Tollway Authority (SRTA)	For their 6C transponders. See ID 063 for their SeGo transponders.
0035	SunPass	SeGo		35	2561 (0x0A01)	FDOT	035	FL	Florida Turnpike Enterprise (FTE)	The SeGo CRC in the FTE tag is formatted differently than most others. 6C has been reserved. See the multiprotocol tag entries above for additional clarifications.



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NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
0036	E Pass	TDM/6C/SeGo	36	36 / 99	2565 (0x0A05)		036	FL	Central Florida Expressway Authority (CFX)	CFX segregates protocols by serial number range. As such, all protocols can be mapped to a single Agency ID without the risk of overlapping. Note: CFX has issued some multi-protocol tags (serial numbers 7045472-7055471) with a TDM Agency ID of 36 and a 6C Agency ID of 99.
0037		SeGo			n/a		037	FL	Miami Dade Expressway Authority (MDX)	Does not issue its own transponders.
0038		SeGo			n/a		038	FL	Tampa Hillsborough Expressway Authority (THEA)	Does not issue its own transponders.
0039	LeeWay	SeGo		39	2563 (0x0A03)		039	FL	Lee County Florida	6C has been reserved.
0044	E-ZPass	TDM	44				044	IL	Skyway Concession Company (SCC)	
0045	RiverLink	TDM/6C	45	449			045	KY	Louisville-Southern Indiana Ohio River Bridges (LSIORB)	LSIORB segregates protocols by serial number range. As such, both protocols can be mapped to a single Agency ID without the risk of overlapping.
0046	ExpressToll	6C		194			046	CO	E-470 Colorado	
0047	ExpressToll	6C					047	CO	Northwest Parkway Colorado	Does not issue its own transponders.
0048	E-ZPass	TDM/SeGo	48		2569 (0x0A09)		048	MN	Minnesota DOT (MnDOT)	
<del>0049</del>	<del>?</del>	<del>6C</del>		<del>2529</del>			<del>049</del>	<del>MI</del>	<del>Blue Water Bridge</del>	They do not require an EZG Agency ID reserved for them. See NIOP Tag Agency ID 2529 instead.
0050	TollTag	6C/SeGo		451	50 (0x0032)	LPC.	050	LA	Greater New Orleans Expressway Commission (Lake Pontchartrain Causeway)	GNOEC tag ID is formatted a little different than others. They do not have a CRC and their ID is in the space where the CRC generally is. In addition, they segregate protocols by serial number. As such, both protocols can be mapped to a single Agency ID without the risk of overlapping.
0051	GeauxPass	6C/SeGo		450	51 (0x0033)	GNO2	051	LA	Louisiana DOT and Development (LADOTD)	LADOTD segregates protocols by serial number range. As such, both protocols can be mapped to a single Agency ID without the risk of overlapping.
0054	IAVE Pass	SeGo			203 (0x00CB)	CPFI	054	Mexico	Capufe, Mexico	Believe they may have migrated to 6C.
0055	PikePass	6C		55			055	OK	Oklahoma Turnpike Authority	
0057	AutoExpreso	6C		448			057	PR	Puerto Rico Highway and Transportation Authority	
0058	Express Pass	6C		1409			058	UT	Utah DOT	
0059		TDM	59				059	NY	Niagara Falls Bridge Commission	Does not currently issue its own transponders.
0060		TDM	60				060	NY	Thousand Islands Bridge Authority	Does not currently issue its own transponders.
0061	MACPASS	SeGo		61	197 (0x00C5)	CAHD	061	Canada	Halifax Dartmouth Bridge Commission (HDBC)	6C has been reserved.
0062							062		Reserved for future E-ZPass expansion	
0063	Peach Pass	SeGo			200 (0x00C8)		063	GA	Georgia State Road and Tollway Authority (SRTA)	For their SeGo transponders. See ID 034 for their 6C transponders.
0064	SunPass	TDM/6C/SeGo	64	64	2570 (0x0A0A)		064	FL	Florida Turnpike Enterprise (FTE)	Second ID assigned to FTE. See the multiprotocol tag entries above for additional clarifications.
0065	SunPass	TDM/6C/SeGo	65	65	2571 (0x0A0B)		065	FL	Florida Turnpike Enterprise (FTE)	Third ID assigned to FTE.
0066	TReO	6C		2305			066	Canada	TI Corp (Canada)	
0070		6C		70			070	AL	American Roads (AR)	Used for toll facilities in Alabama.
0071		6C		71			071	MI	Detroit Windsor Tunnel (DWT)	Used by American Roads for the Detroit Windsor Tunnel.

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NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
0077	Good To Go	6C/SeGo		77 / 78	218 (0x00DA)		077	WA	Washington DOT (WashDOT)	WashDOT segregates protocols by serial number range and has also segregated its Agency ID 77 and 78 transponders by serial number range. As such, both protocols and all the current Agency IDs can be mapped to a single Agency ID without the risk of overlapping.
0079		6C		79			079		BancPass Inc	
0080	E-ZPass						080	IL	United Bridge Partners (UBP)	Does not currently issue its own transponders.
0081		6C		81			081	MI	UBP Bay City, LLC	
0082							082	IL	Houbolt Road Extension JV, LLC	Does not currently issue its own transponders.
0083		6C		83			083	WV	UBP Parkersburg, LLC	
0084							084		Reserved for future E-ZPass expansion	
0085				85			085		Oregon Department of Transportation (ODOT)	
0086	E-ZPass		86				086	NY	MTA Bridges & Tunnels (MTAB&T)	Second ID assigned to MTAB&T.
0087							087		Reserved for future E-ZPass expansion	
0088		6C		88			088	IL	Kane County Division of Transportation (KDOT)	
0089							089		Reserved for future E-ZPass expansion	
0090							090		Reserved for future E-ZPass expansion	
0091							091		Reserved for future E-ZPass expansion	
0092							092		Reserved for future E-ZPass expansion	
0093							093		Reserved for future E-ZPass expansion	
0094							094		Reserved for future E-ZPass expansion	
0095							095		Reserved for future E-ZPass expansion	
0096							096		Reserved for future E-ZPass expansion	
0097							097		Reserved for future E-ZPass expansion	
0098							098		Reserved for future E-ZPass expansion	
0099	E Pass	TDM/6C/SeGo	99	99	2659 (0x0A63)		099	FL	Central Florida Expressway Authority (CFX)	Second ID assigned to CFX. CFX has issued some multi-protocol tags with a TDM Agency ID of 36 and a 6C Agency ID of 99. See Note on NIOP Tag Agency ID 36.
0100							100		Reserved for future E-ZPass expansion	
0101	FasTrak	6C		101			101	CA	Bay Area Toll Authority (BATA)	
0102		6C		102			102	Canada	Atlantic Highway Management Corporation Limited (AHMCL)	
0103	FasTrak	6C		103			103	CA	Transportation Corridor Agencies (TCA)	
0104		6C		104			104	CA	California Department of Transportation (Caltrans)	Does not issue its own transponders.
0105		6C		105			105	CA	Golden Gate Bridge, Highway and Transportation District (GGBHTD)	Does not issue its own transponders.
0106	FasTrak	6C		106			106	CA	Los Angeles County Metropolitan Transportation Authority (LA Metro)	
0107	FasTrak	6C		107			107	CA	Orange County Transportation Authority (OCTA)	
0108	FasTrak	6C		108			108	CA	Riverside County Transportation Commission (RCTC)	
0109	FasTrak	6C		109			109	CA	San Diego Association of Governments (SANDAG)	
0110		6C		110			110	CA	Santa Clara Valley Transportation Authority (VTA)	Does not issue its own transponders.
0111		6C		111			111	CA	South Bay Expressway, LLC (SBX)	Does not issue its own transponders.
0112		6C		112			112	CA	Alameda County Transportation Commission (ACTC)	Does not issue its own transponders.

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NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
0113		6C		113			113	CA	San Francisco County Transportation Authority (SFCTA)	Does not issue its own transponders.
0114		6C		114			114	CA	San Bernardino County Transportation Authority (SBCTA)	Does not issue its own transponders.
0115	A25	6C		115			115	Canada	Concession A25 S.E.C.	A25 segregates protocols by serial number range. As such, both protocols can be mapped to a single Agency ID without the risk of overlapping.
0116	BreezeBy	6C		116	220 (0x00DC)		116	OR	Port of Hood River (PoHR)	Open question on their old SeGo transponders and whether there is serial number overlap with their 6C transponders.
0117		6C		117			117		Neology	
0118	EZ Cross	6C		118			118	TX	McAllen-Hidalgo & Anzalduas Bridges	
0119		6C		119			119	TX	Pharr-Reynosa International Bridge	
0120		6C	120	120			120		TransCore	See the multiprotocol tag entries above for additional clarifications.
0121		6C		121			121	TX	Cameron County Regional Mobility Authority (CCRMA)	
0122		6C		122			122	TX	Starr County	
0123									Reserved	
0124		6C		124			124	MI	Mackinac Bridge Authority	
0125		6C	125	125			125		BestPass	
0126		6C		126			126		Kapsch	
0127	FasTrak	Title-21					127	CA	WRIOP (WRIOP Hub) - For Title 21 Tags	The Western Region IOP (WRIOP) will include Title 21 Tags with converted serial numbers to map to eight (8) characters in an interim until Regions are able to accept more than eight (8) characters.
0128							128		New York State Parking	Reserved by E-ZPass. Not expected to be used for NIOP.
0131							131		Port Authority of New York & New Jersey Airports	Reserved by E-ZPass. Not expected to be used for NIOP.
0132							132		South Jersey Transportation Authority Parking	Reserved by E-ZPass. Not expected to be used for NIOP.
0140		6C		140				CA	Los Angeles World Airports	Reserved by 6C Coalition. Not expected to be used for NIOP.
0170		6C		170				Canada	Windsor Detroit Borderlink Limited (WDBL)	
0171		6C		171				NY	Nassau County Bridge Authority (NCBA)	
0195		6C		195				CO	Plenary Group	
0999								NJ	Cape May County Bridge Commission (CMCBC)	Reserved by E-ZPass. Not expected to be used for NIOP.
1100	TxTAG	SeGo			21550 (0x542E)	TEX.	040	TX	Texas DOT (TxDOT)	
1101	TxTAG	SeGo			102 (0x0066)	TXDT	067	TX	Texas DOT (TxDOT)	2/2020: Changed from HCTRA back to TxDOT.
1110	TollTag	SeGo		41	20052 (0x4E54)	DNT.	041	TX	North Texas Tollway Authority (NTTA)	6C has been reserved.
1111	TollTag	SeGo		53	182 (0x00B6)	DFW.	053	TX	NTTA / DFW	6C has been reserved.
1112	TollTag	SeGo/6C		69	325 (0x0145)	NTTA	069	TX	NTTA	Additional ID assigned to NTTA.
1120	EZ Tag	SeGo			100 (0x0064)	HCTR	042	TX	Harris County Toll Road Authority (HCTRA)	
1121	EZ Tag	SeGo			222 (0x00DE)	MTAH	068	TX	HCTRA / Houston Metro	
1130		SeGo			n/a	n/a	043	TX	Central TX Regional Mobility Authority (CTRMA)	Does not issue its own transponders.
1131		SeGo			n/a		052	TX	Ft. Bend County Toll Road Authority	Does not issue its own transponders.

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NIOP Tag Agency ID	Native ETC Program	Protocols	Native TDM ID	Native 6C ID	Native SeGo ID	ATA	Reserved EZG Agency ID	State	Original Issuing Agency	Note
1250	PikePass	SeGo			20299 (0x4F4B)	OTA.		OK	Oklahoma Turnpike Authority	See NIOP Tag Agency ID 0055 for OTA 6C tags.
1300	K Tag	SeGo			19284 (0x4B54)	KTA.	056	KS	Kansas Turnpike Authority	
2306		6C		2306			n/a	England	MercyFlow	
2529		6C		2529			n/a	MI	Blue Water Bridge (FBCL)	
2530		6C		2530			n/a	MI	Blue Water Bridge (MDOT)	
2531		6C		2531			n/a	MI	International Bridge Administration	
4000		6C		4000			n/a	GA	Hartsfield Jackson Atlanta International Airport	Reserved by 6C Coalition. Not expected to be used for NIOP.
4080 - 4095		6C		4080 - 4095			n/a		Reserved for testing	Reserved by 6C Coalition. Not expected to be used for NIOP.

**General Notes:**

- A. Several agencies that have been shown in other tables and documents have been removed as they no longer collect tolls or have never collected tolls.
- B. The "Reserved EZG Agency ID" represents the mapped ID that will be presented by the MPR reader to the lane controller for transponders read with the indicated Native IDs.
- C. The "NIOP Tag Agency ID" represents the mapped ID that will be presented by the EZIOP Hub to other regional Hubs for transponders in its TVL and for transactions with the given "Reserved EZG Agency ID".
- D. The following ATA tag references were removed from the table above since they are no longer in use:
  - a. MPA – Massport
  - b. TNB. – Tacoma Narrows Bridge
  - c. TXDT - Texas DOT (original issue)
  - d. SATX – Texas DOT (San Antonio)
  - e. PRIB – Texas DOT (Pharr Bridge/Trindel)
  - f. LDO. – Laredo, Texas
  - g. CASJ – St. John’s Bridge, Canada
  - h. CAAH – Atlantic Highway, Canada

# **Appendix F**

## MacDill Discount Program

# **Operational Back Office System**

## **Appendix F – MacDill Discount Program Overview**

The MacDill Discount Program provides eligible military personnel working at MacDill Airforce Base with a thirty five percent (35%) discount on their Selmon Expressway Transactions when they have thirty-five (35) or more Transactions in a calendar month. The discount program has an annual budget allocation by the Authority and ends at the end of the Fiscal Year, June 30<sup>th</sup>, or when the annual budget has run out. The following narratives provide details on the program along with requirements for the Operational Back Office.

### **Customer Eligibility**

To qualify for the discount program, a customer must:

- Be an active US military member working at MacDill Air Force Base
- Have an active SunPass Prepaid Toll Account
- Register for the program with the Authority, providing Identification Information (see *Identification of Eligible Customers*).

### **Identification of Eligible Customers**

The Authority will work with MacDill Air Force Base to identify and register eligible active military members. On a monthly basis, the Authority will collect the following list of information and send a CSV File to OBOS that identifies new customers and any customers that are no longer eligible for the program. The list of data collected for new customers includes:

- Customer first and last name
- Customer Address
- Customer Email Address
- SunPass Account Number
- SunPass Transponder ID
- License Plate Number and jurisdiction (state)
- Vehicle make and model
- Add or Remove (to identify if the customer is to be added or removed from the program).

### **MacDill Discount and Discount Eligibility**

Discounts are assessed on a monthly basis. In order to qualify for a discount, a customer must be registered for the program in OBOS in the month where the discount is being applied. The registered customer must have accrued thirty-five (35) Transactions on the Selmon Expressway which are paid for via the customer's prepaid SunPass account for the license plate and/or transponder that is registered in OBOS for the program (i.e. total of thirty-five (35) or more transponder or license plate Transactions). The discount that will be applied to each registered and qualifying customer's Transactions shall be thirty-five percent (35%). The discount will apply to all qualifying Transactions and all Transactions thereafter occurring within the calendar month.

OBOS shall determine whether the customer has thirty-five (35) or more qualifying Transactions within the month (transaction date) on the fifteenth (15<sup>th</sup>) day of the following month (this allows for any potential image-based toll Transactions to have been processed through image review).

## **Operational Back Office System**

### **Appendix F – MacDill Discount Program Overview**

Determination of whether a transaction is qualifying shall be made via OBOS tabulating ‘paid amendments’ received from the CCSS that show that the transaction was applied against the prepaid SunPass account.

#### **Application of MacDill Discount by OBOS**

Following the determination of whether a registered customer has qualified for a discount (see Discount and Discount Eligibility), OBOS will tabulate the discount for each customer to determine the total discounts for the month. This will usually occur on the same day as the determination of discount eligibility (i.e. the fifteenth (15<sup>th</sup>) day of the following month). Before communicating or applying discounts, OBOS shall validate that there are sufficient funds remaining from the annual allocation defined by the Authority to cover the total of all eligible customer discounts for the month. If there are sufficient remaining funds from the annual allocation to cover all discounts, the eligible customers will receive the calculated discounts. If there are insufficient funds to cover all discounts, then OBOS shall calculate a pro-rated distribution of the discount based on a ratio of each customer’s discount to the total of all discounts multiplied by the remaining available funds for the program (see Pro-rated customer discount calculation):

Pro-rated customer discount calculation:

*Pro-rated Customer Discount = (Customer Discount / Total of All Customer Discounts) X Remaining Discount Program Funds.*

Upon determination of the discount for each customer (actual or pro-rated), OBOS shall generate, but not send, an email to each customer with the total discount to be applied to the customer’s account, as well as a summary report to the Authority that provides the total of the discounts for the month and remaining funds in the program, and a detailed report of each customer’s discount.

OBOS shall provide a function for the Authority to approve the emails and the application of the discounts. Upon approval of the discounts by the Authority, OBOS shall send a Fare Adj Amendment to CCSS for each eligible transaction for the discount month. Following the transmission of the TCA Amendments, OBOS shall send the customer emails identifying the application of the discount to the customer’s SunPass Account.

OBOS shall include a function to review and adjust member trips and credits before and after corresponding Amendments are sent to CCSS.

#### **OBOS MacDill Discount Program Table**

The OBOS shall have tables created to support the Discount Program that will include, but may not be limited to the following:

- Eligible customer user information
- Total valid Transactions for the month
- Total valid Transactions total for all months of the Fiscal Year
- Remaining annual budgetary funds for the Fiscal Year
- Savings per month/account (calculated by identifying the amount saved)

## **Operational Back Office System**

### ***Appendix F – MacDill Discount Program Overview***

OBOS shall allow for additional funds to be added to the annual program appropriation and for the annual funding to be reduced.

#### **OBOS MacDill Discount Program Reporting**

As identified in *Application of Discount by OBOS*, OBOS shall include functions for both reporting the status of the program to the Authority and communicating to customers the monthly discount that has been applied to their accounts.

#### **OBOS MacDill Discount Program Configurable Parameters**

The discount program shall include the following configurable parameters within the OBOS System:

- Number of Transactions in the month to qualify for the discount
- Percent discount applied (currently set at thirty five percent (35%))
- Funding/budget allocated to the program by Fiscal Year or other time period established by the Authority
- Starting date and time of the program
- Duration of the program (i.e. the program could occur more than once within a twelve (12) month period but shall not be overlapping).
- Day of the month for which the discount is calculated (initially set as the fifteenth (15th) day of the following month)



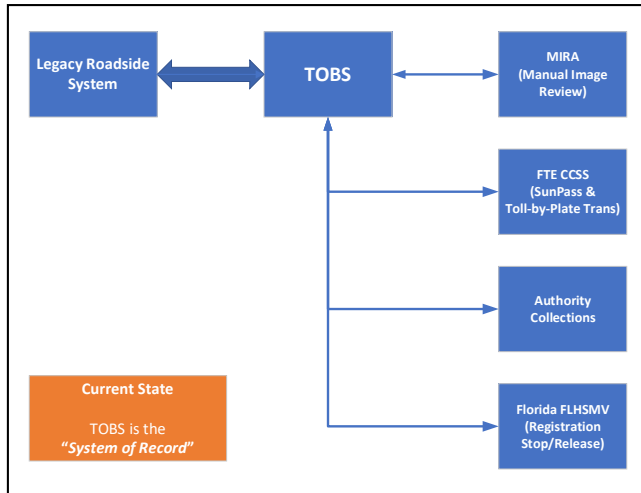
# **Appendix G**

## **OBOS Go-Live Overview**

# Operational Back Office System

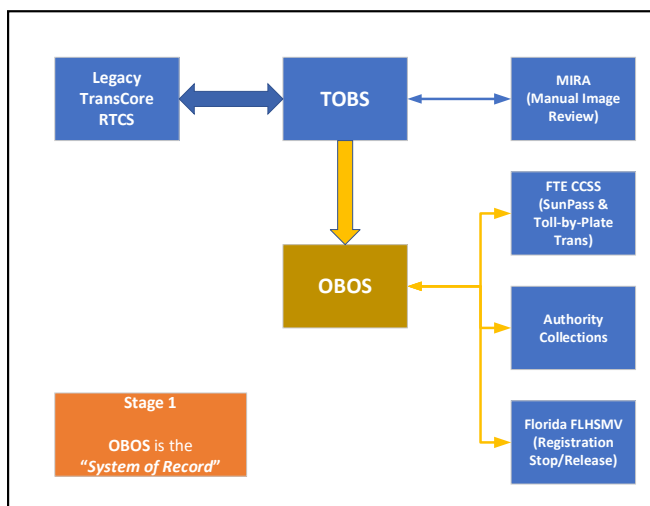
## Appendix G – OBOS Go-Live Overview

The following provides a conceptual overview of the processes involved in the transition from the current TOBS system to the OBOS. The steps involved serve only as a guide and the Contractor is ultimately responsible for assembling any additional information needed and for a seamless transition from TOBS to OBOS. The current system architecture is illustrated in the diagram below:



### **Go-Live**

Go-Live is the process of bringing the OBOS into operation as the production System-of-record for tolls on the Authority's toll roads. Because the OBOS is replacing TOBS for this function, the transition from TOBS to OBOS must occur for all existing roadside lanes at once. This is a critical step in the adaptation of the OBOS into the Authority's toll System and will require significant care and planning. It is essential that the Contractor understand that at the completion of the Go-Live process, all existing toll lanes will continue to communicate to the TOBS and the only other external interface to the TOBS will be the manual image review function (MIRA). Communication to the CCSS, Collections, and FLHSMV will be through the OBOS. This concept is illustrated in the diagram below:



# Operational Back Office System

## Appendix G – OBOS Go-Live Overview

The Go-Live Transition will begin only when the following conditions have been met.

- All development necessary for the Contractor's OBOS and the Legacy OBOS has been completed and the OBOS has passed all Testing required prior to the OBOS Go-Live.
- Go-Live Test scripts and Test Plans have been completed and Approved by the Authority.
- All Documentation required to be completed before OBOS Go-Live has been Approved by the Authority.
- The Contractor has completed and received the Authority's approval of all Deliverables, Formal Test and milestones required prior to Go-Live.
- All required training Documentation has been completed and Approved by the Authority, and the Authority staff have been trained on the new OBOS.
- The OBOS, and all associated System/subsystems, are complete and operational, and the OBOS is accessible by all Users as identified by the Authority.
- The Authority has approved the OBOS Transition Plan.
- All Transactional data up to the point of the Go-Live date has been migrated from the TOBS to the Primary OBOS Production Database.
- The Authority's Approval of Contractor Documentation certifying complete and accurate data migration.
- The Authority has provided the Contractor Approval to initiate the Transition Plan and Go-Live with the new OBOS.
- The Contractor, in coordination with the Authority, has coordinated with and informed all external, interfacing entities ahead of the Go-Live date to ensure they are ready for the Authority's transition to the new OBOS.
- The Contractor has successful cut-over in accordance with the the Authority Approved Transition/Data Migration Plan.

Following is an outline of the OBOS Go-Live process steps:

1. Operation will begin at midnight and require a shutdown period wherein the following sequence will be performed:
  - A. Stop roadside communication with TOBS. Current roadside system will buffer Transactions.
  - B. Execute a controlled stop of all communications with TOBS to/from external interfaces.
  - C. Redirect CCSS, Collections, & FLHSMV interfaces from TOBS to OBOS.
  - D. Complete migration and verification of any Transactions remaining in TOBS<sup>1</sup>.
  - E. Keep all Lanes connected to TOBS.

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<sup>1</sup> The final migration of Transactional data from the TOBS to the OBOS shall continue to utilize the interim database which in turn shall be populated with all remaining TOBS transactional information. The Contractor's Migration Plan shall address the anticipated time required to complete this step.

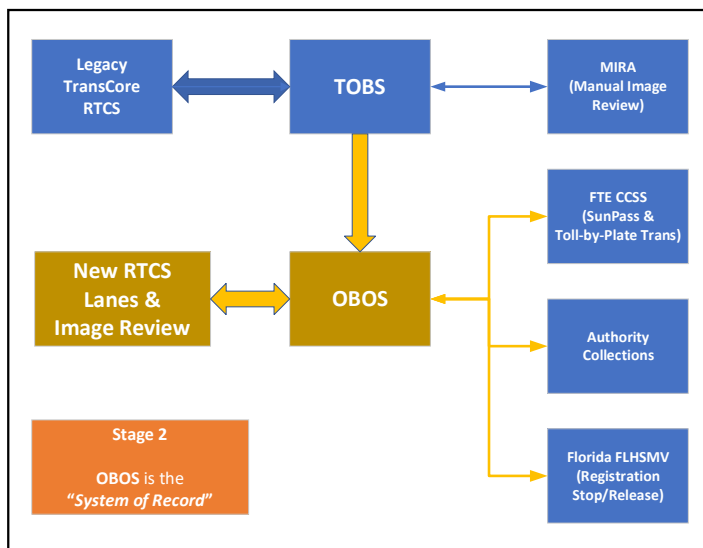
# Operational Back Office System

## Appendix G – OBOS Go-Live Overview

- F. Ensure OBOS is connected to TOBS.
  - G. Start all OBOS processes.
  - H. Start the TOBS/OBOS Transaction Conversion App
  - I. Start TOBS communication with MIRA
  - J. Start TOBS communication with legacy roadside<sup>2</sup>.
2. The OBOS will send POSI List files to TOBS as they are received.
  3. OBOS will, at this point, be the System-of-record for the Authority's toll Transactions.

### Stage 2

Stage 2 begins when the first RTCS lanes operate with live traffic on the Authority's toll roads and ends when the final RTCS lanes are installed and operating. With careful planning and testing this process should be relatively seamless. Note that during Stage 2 the OBOS will process transactions from the newly installed RTCS lanes as well as the remaining legacy lanes via TOBS. This concept is illustrated in the diagram below:



Steps are:

1. The OBOS communication to the TOBS will continue as in Go-Live.
2. The RTCS contractor will notify the OBOS Contractor that the RTCS system is ready to send and receive information.

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<sup>2</sup> To allow for the possibility of rollback, The OBOS Contractor shall coordinate with the RTCS Contractor to throttle the transaction rate from TOBS to OBOS so that only a limited number of transactions/amendments are processed and validated before continuing with go-live.

## **Operational Back Office System**

### **Appendix G – OBOS Go-Live Overview**

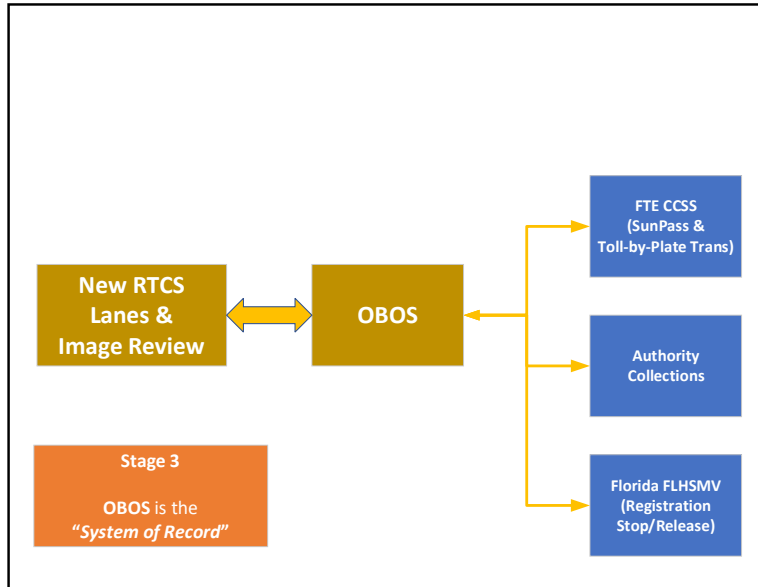
3. The RTCS contractor and the OBOS Contractor shall agree on a starting Transaction ID that will not conflict with the Transaction IDs from the legacy roadside lanes.
4. The OBOS will begin sending POSI List files to the RTCS (as well as the TOBS system).
5. The legacy roadside system will stop sending Transactions to TOBS for the lanes that will be replaced.
6. The RTCS lanes will begin sending Transactions from the new lanes to the OBOS in accordance with the RTCS/OBOS interface specification and the OBOS will process these normally.
7. Steps 4 and 5 will be repeated as new RTCS lanes are put into service.

# Operational Back Office System

## Appendix G – OBOS Go-Live Overview

### Stage 3

System completion is achieved when all lanes are running on the RTCS and all data processed by MIRA has been completed. At this point, TOBS is no longer needed nor is the MIRA image review as the new RTCS will perform the image review function. This concept is illustrated in the diagram below:



Steps are:

1. Ensure that TOBS Transactions, license plate numbers, and associated images have been transferred from TOBS to OBOS.
2. Disconnect OBOS from TOBS.
3. Run OBOS in its final configuration.

### **Change in Sequence**

In the event that the RTCS system is installed prior to OBOS, the Contractor shall be prepared to follow a different path than described above. In this case, the Contractor should expect that the entire RTCS system has been installed and is operational. All testing and Data Migration shall be completed as defined in the SOW with the exception of the interface between the TOBS Interim Database and the OBOS. Testing and Go-Live will instead be conducted and coordinated directly with the RTCS. In coordination with the Authority, the Project schedule shall be revised accordingly.

# **Appendix H**

Authority Fare Table – FY2025

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$2.44	\$2.08
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$4.88	\$4.16
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$7.32	\$6.24
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$9.76	\$8.32
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$12.20	\$10.40
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$14.64	\$12.48
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$17.08	\$14.56
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$19.52	\$16.64
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$21.96	\$18.72
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$24.40	\$20.80
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$26.84	\$22.88
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$29.28	\$24.96
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$31.72	\$27.04
THEA	SR 618 REL	101770	Reversible Express Lanes - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$34.16	\$29.12

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$2.44	\$2.08
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$4.88	\$4.16
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$7.32	\$6.24
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$9.76	\$8.32
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$12.20	\$10.40
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$14.64	\$12.48
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$17.08	\$14.56
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$19.52	\$16.64
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$21.96	\$18.72
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$24.40	\$20.80
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$26.84	\$22.88
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$29.28	\$24.96
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$31.72	\$27.04
THEA	SR 618 REL	101775	Reversible Express Lanes - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$34.16	\$29.12



**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101710	Willow Avenue ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101715	Willow Avenue OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.73	\$1.37
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$3.46	\$2.74
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$5.19	\$4.11
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$6.92	\$5.48
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$8.65	\$6.85
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$10.38	\$8.22
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$12.11	\$9.59
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$13.84	\$10.96
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$15.57	\$12.33
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$17.30	\$13.70
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$19.03	\$15.07
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$20.76	\$16.44
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$22.49	\$17.81
THEA	SR618	101720	SELMON EXPY WEST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$24.22	\$19.18

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.73	\$1.37
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$3.46	\$2.74
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$5.19	\$4.11
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$6.92	\$5.48
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$8.65	\$6.85
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$10.38	\$8.22
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$12.11	\$9.59
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$13.84	\$10.96
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$15.57	\$12.33
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$17.30	\$13.70
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$19.03	\$15.07
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$20.76	\$16.44
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$22.49	\$17.81
THEA	SR618	101725	SELMON EXPY WEST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$24.22	\$19.18

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.07	\$0.71
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.14	\$1.42
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$3.21	\$2.13
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$4.28	\$2.84
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$5.35	\$3.55
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$6.42	\$4.26
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$7.49	\$4.97
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$8.56	\$5.68
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$9.63	\$6.39
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$10.70	\$7.10
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$11.77	\$7.81
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$12.84	\$8.52
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$13.91	\$9.23
THEA	SR618	101730	Plant Avenue OFF - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$14.98	\$9.94

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.07	\$0.71
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.14	\$1.42
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$3.21	\$2.13
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$4.28	\$2.84
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$5.35	\$3.55
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$6.42	\$4.26
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$7.49	\$4.97
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$8.56	\$5.68
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$9.63	\$6.39
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$10.70	\$7.10
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$11.77	\$7.81
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$12.84	\$8.52
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$13.91	\$9.23
THEA	SR618	101735	Plant Avenue ON - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$14.98	\$9.94

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.07	\$0.71
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.14	\$1.42
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$3.21	\$2.13
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$4.28	\$2.84
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$5.35	\$3.55
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$6.42	\$4.26
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$7.49	\$4.97
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$8.56	\$5.68
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$9.63	\$6.39
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$10.70	\$7.10
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$11.77	\$7.81
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$12.84	\$8.52
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$13.91	\$9.23
THEA	SR618	101740	22nd Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$14.98	\$9.94

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.07	\$0.71
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.14	\$1.42
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$3.21	\$2.13
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$4.28	\$2.84
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$5.35	\$3.55
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$6.42	\$4.26
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$7.49	\$4.97
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$8.56	\$5.68
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$9.63	\$6.39
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$10.70	\$7.10
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$11.77	\$7.81
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$12.84	\$8.52
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$13.91	\$9.23
THEA	SR618	101745	22nd Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$14.98	\$9.94

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101750	50th Street ON - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101755	50th Street OFF - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$2.44	\$2.08
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$4.88	\$4.16
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$7.32	\$6.24
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$9.76	\$8.32
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$12.20	\$10.40
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$14.64	\$12.48
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$17.08	\$14.56
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$19.52	\$16.64
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$21.96	\$18.72
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$24.40	\$20.80
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$26.84	\$22.88
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$29.28	\$24.96
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$31.72	\$27.04
THEA	SR618	101760	SELMON EXPY EAST MAINLINE Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$34.16	\$29.12

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$2.44	\$2.08
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$4.88	\$4.16
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$7.32	\$6.24
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$9.76	\$8.32
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$12.20	\$10.40
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$14.64	\$12.48
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$17.08	\$14.56
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$19.52	\$16.64
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$21.96	\$18.72
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$24.40	\$20.80
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$26.84	\$22.88
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$29.28	\$24.96
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$31.72	\$27.04
THEA	SR618	101765	SELMON EXPY EAST MAINLINE Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$34.16	\$29.12

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101702	SR618 Ext. Main - Westbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

Agency	Roadway	Exit Facility	Exit Facility Name	Effective Date	Expiry Date	Vehicle Class	(Toll-by-plate) Full Fare Amount	(Sunpass) Discount Amount
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101701	SR618 Ext. Main - Eastbound	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14

**Operational Back Office System**  
**Appendix H - Authority Fare Table - FY2025**

<b>Agency</b>	<b>Roadway</b>	<b>Exit Facility</b>	<b>Exit Facility Name</b>	<b>Effective Date</b>	<b>Expiry Date</b>	<b>Vehicle Class</b>	<b>(Toll-by-plate) Full Fare Amount</b>	<b>(Sunpass) Discount Amount</b>
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	2	\$1.37	\$1.01
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	3	\$2.74	\$2.02
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	4	\$4.11	\$3.03
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	5	\$5.48	\$4.04
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	6	\$6.85	\$5.05
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	7	\$8.22	\$6.06
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	8	\$9.59	\$7.07
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	9	\$10.96	\$8.08
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	10	\$12.33	\$9.09
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	11	\$13.70	\$10.10
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	12	\$15.07	\$11.11
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	13	\$16.44	\$12.12
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	14	\$17.81	\$13.13
THEA	SR618	101705	SR618 Ext. SR573/US92 OFF RAMP	07/01/24 @ 00:00:00	06/30/25 @ 23:59:59	15	\$19.18	\$14.14



# **Appendix I**

## Reports and Dashboards

## Operational Back Office System

### Appendix I – Reports and Dashboards

The following is a list of reports that shall be developed by the Contractor, in coordination with the Authority, during the reports, Dashboards and Business Intelligence tools workshops. While the descriptions within the table reference 'reports', comparable Dashboards shall also be developed by the Contractor to provide Business Intelligence (BI) and Analytics capabilities, in coordination with the Authority, during the Workshops.

Report Name	Description
Lane Data	The Lane Data report allows users to analyze traffic data based on date/time and gantry location parameters. It provides comprehensive metrics including total transaction count, video/ETC counts, exempt transactions, speed, and other relevant columns. Users can specify date/time ranges and gantry locations and potentially other fields to generate customized reports, enabling detailed analysis of traffic patterns and performance across different locations and time periods. This report should also allow the Authority to see whether the transaction originated from the legacy toll plazas or the new RTCS plazas. The report should also provide graphical/chart presentation capabilities to allow the user to generate a graphic on transaction data that can be used in a presentation (such as a Board Meeting that presents prior month's transaction volume compared to the same month in the prior year).
Traffic Congestion	This report shows transaction counts/speed and congestion. Users shall be able to choose whether the report is shown in tabular or graphic/chart form with options for the table and graphic display. Congestion calculations will be defined during design, but generally are associated with a combination of average speed of traffic being below a posted speed (e.g. 20 mph below posted) and a volume of traffic that can allow the data to be correlated to congestion and not a different event.
Potential Revenue Loss	The Potential Revenue Loss Report enables users to input one or multiple gantries, along with a date range specifying weekdays, weekends, or all days. The report calculates the projected revenue loss for the Authority if the selected gantry/gantries were to be closed during the specified period. By analyzing the impact of gantry closures on revenue, the Authority can make informed decisions regarding operational strategies and resource allocation. The potential revenue loss is based on historical transaction data, by transaction type and historical payment information for the transaction types.
State of CBO transactions	This Report provides summarized data on the status of transactions at the Commercial Back Office (CBO). The report includes fields such as transponder or plate Home Agency, Account Type, ITOL, Negative Balance UFMS, Recalled UFMS, and others. This report offers aggregated and detailed values for specified time periods, calculated using transaction date/time, posting date/time, or settlement date/time

## Operational Back Office System

### Appendix I – Reports and Dashboards

CBO Amendments	The CBO Amendments Report provides an aggregated view of transaction states for a specified time period, calculated using transaction date/time, posting date/time, or settlement date/time. It displays amendments returned by the CBO, such as 'paid in full,' 'paid partial,' 'no ROV,' 'bankruptcy,' 'invoice 1 & 2,' and others, reflecting the current state of transactions. The report allows drill-down capabilities, including the ability to view the status of a transaction (i.e. all amendments) over time.
File Transfer Historical Record	This report presents a historical view of all files transferred to/from the Authority. The user shall select one or more file types (e.g. POSI List, FLHSMV Registration Hold or Release, etc.) and be able to specify the date range. The report will show the status and any error logs for all file transfers.
Collections Status	The Collections Status Report provides detailed information on the state of transactions within Collections, including collection amendments, outstanding balances, and account registration holds. Users can configure the report to display data for a specific date/time range. The report shall have a summary view and a drill down capability to show the status of transactions and accounts over time.
Registration Stop Report	This report provides information related to Accounts that have become eligible for registration stop, accounts that have been placed in registration stop, detailed customer information (including name, address, license plate number, account number), amount due, amount paid, date of registration stop placement and date of registration stop release.
Interface Report	The Interface Report provides insights into API interactions, allowing users to review data exchange between various systems. Configurable by date/time, the report includes a summary of both successful and errors in Receiving from RTCS, Sending to RTCS, sending to CBO, Receiving from CBO, Sending to Collections, Receiving from Collections, Sending Registration Hold, and Receiving Registration Hold. This report facilitates tracking and troubleshooting of API errors, ensuring smooth communication and system operation. The report will have both a summary view and a drill down view for individual records and shall allow criteria such as successful or unsuccessful (i.e. with errors) transmissions.
Discount Program	The Discount Program Report provides users with a summary and detailed views on the history of the transactions for the month, including eligibility for discounts and the amount of discount received. The report also tracks the budget allocated to the discount program by the Authority. It offers insights into user transactions, discount eligibility, and budget utilization, enabling the Authority to monitor program effectiveness, budget management and individual customer applied discounts by month and in aggregate. The report shall allow an individual customer discount summary or detailed report to be generated.

## Operational Back Office System

### Appendix I – Reports and Dashboards

Waterfall	<p>The Waterfall Report provides users with a comprehensive overview of the state of transactions over time and at any given time. It presents data on total transactions received from RTCS, and tracks them to their final disposition. This report allows the user to drill down from the aggregated transaction counts data to the details of an individual transaction disposition, such as dismissed or paid in full. The Waterfall Report should have all of the transactions received from the RTCS, keeping track of the transaction until they are paid in full or completely dismissed.</p>
Expected Revenue	<p>This report presents the expected revenue for a given time period. Expected Revenue is the revenue that is expected to be paid from either the CBO or the Authority's Collection Agency, based on amendments received by the Authority that show payment.</p>
Maintenance Issues	<p>This report provides summary and detailed information related to maintenance issues and tickets, including but not limited to Ticket Status (open/closed), Ticket Open Date &amp; Time, Ticket Closed Date&amp;Time, Who reported the issue, Who is working on the issue, Issue Category, Issue Summary, Priority Level, Systems components affected, Estimated/Actual downtime, Estimated date to resolved, Detailed notes on the issue, how it is intended to be resolved, next steps, how it was resolved, etc.</p>
System Access	<p>Provide summary and detail information related to System access events, including but not limited to successful and unsuccessful access attempts by known and unknown persons and systems; The System component being accessed; User Name, User Location, Date and Time, Number of access attempts, access status (granted or denied)</p>
User Activity	<p>Provide summary and detail information related to User activity, including but not limited to list of users and permissions and user activity logs.</p>

# **Appendix J**

## Key Performance Indicators

# Operational Back Office System

## Appendix J - Key Performance Indicators (KPIs)

The Contractor and OBOS are required to meet all Requirements as stated in the Scope of Work and related appendices. In addition, in [Table 1](#) below, the Authority has identified specific Key Performance Indicators (KPIs) that the Contractor and OBOS must meet or exceed during the Operations and Maintenance Phase for the Contractor to avoid invoice adjustments. As indicated in Section 9 of the Scope of Work, the Contractor is required to monitor, track and report on compliance/non-compliance with these KPIs.

### **System Availability**

The System shall be available to Users with full functionality twenty-four (24) hours a day, seven (7) days a week, 365 days per year, except as indicated below.

System Availability Definition: The System is considered “available” when the overall System, including all hardware, software, components, and related processes, is properly functioning as required. This includes, but is not limited to, the System being available for User interaction, properly exchanging data with internal and external interfaces, properly processing and reconciling data.

- OBOS downtime as a result of the Authority Approved System Maintenance will not count against the Contractor in the KPI calculation of System Availability as follows: OBOS downtime related to Approved System Maintenance will be the lesser of the number of OBOS downtime hours requested and Approved by the Authority or the actual number of hours the OBOS was down as a result of the Approved System Maintenance.
- Maintenance that does not affect OBOS availability shall not be counted as OBOS downtime for purposes of the availability calculation.

For the purposes of these KPIs, System Availability shall be calculated as follows:

- Availability Calculation:  $\# \text{ of hours the System is available during the month} / \{(\# \text{ of Calendar Days in the month} \times \text{twentyfour (24) hours}) - (\text{the lesser of Approved System Maintenance downtime or actual OBOS downtime}) \# \text{ of scheduled system maintenance approved by the Authority}\}$

### **System Availability – Example Calculation**

- Assumption for example
  - Actual System Availability for the month of April = 700
  - Calendar Days in April = 30
  - Hours per day = 24
  - Approved System Maintenance downtime = 4 hours
$$700 / [(30 \times 24 = 720 \text{ hours}) - 4 = 716] = 97.8\% \text{ Availability}$$
- Example calculation of Invoice Adjustment - Based on an Adjustment Threshold of 99.9%
  - Actual System Availability for the month is 97.8%
  - Adjustment Threshold 99.9% less 97.8% = 2.1%
  - Invoice Adjustment (amount deducted from monthly invoice) = 3% of the total invoice amount for the month

# Operational Back Office System

## Appendix J - Key Performance Indicators (KPIs)

### Response and Repair Times - Definitions

- **“Contractor becoming aware of the issue”**: Defined as a maintenance ticket being opened by the Authority or the Contractor, a System Alert occurring, identification during routine Maintenance, or communication from an entity/system with which the System interfaces.
- **“Resolve”**: Defined as when the fault condition is corrected and verified that the System has returned to normal operations and is fully functional.

### Notes:

- All calculations are rounded to three (3) decimal places (example .999 or 99.9%).
- If the System is unavailable, other assessments may be paused, at the sole discretion of the Authority, to prevent duplicate invoice adjustments.
- The assessment of all invoice adjustments is at the sole discretion of the Authority.
- Unless otherwise indicated, compliance/non-compliance shall be measured on a monthly basis.
- All KPIs and related invoice adjustments are independent of each other and shall be calculated and assessed separately.
- For circumstances completely outside the control of the Contractor, such as failure of an Authority internet connection for which the Contractor is not required to provide a backup, then the Authority will consider a waiver request for specifically impacted KPIs for the affected period. Approval of the waiver will be solely at the discretion of the Authority however such approval shall not be unreasonably withheld.

Table 1 - Key Performance Indicators

KPI #	Key Performance Indicators	Adjustment Threshold	Invoice Adjustment (Reduction for Non-Compliance)
<b>System Availability</b> (see details and calculation below)			
1	The OBOS shall be available twenty-four (24) hours/day, seven (7) days/week excluding any Approved Maintenance Period.	99.5%	1% of monthly invoice for each 1% (absolute) or part thereof which is below the threshold (see calculation example above).
<b>Contractor/System Response Time</b> (see details and calculation below)			
2	Priority 1 - 3: The Contractor shall advise the Authority, in writing, of all System issues within one (1) hour of “the Contractor becoming aware of the issue” (see definition above).	100%	\$100 per hour or part thereof in which the Contractor is not in compliance with the KPI
3	Priority 1 - The Contractor shall “resolve” each Priority 1 issue within four (4) hours of “becoming aware of the issue.”	100%	\$500 per hour or part thereof in which the Contractor is not in compliance with the KPI

**Operational Back Office System**  
**Appendix J - Key Performance Indicators (KPIs)**

KPI #	Key Performance Indicators	Adjustment Threshold	Invoice Adjustment (Reduction for Non-Compliance)
4	Priority 2 - The Contractor shall “resolve” each Priority 2 issue within six (6) hours of “becoming aware of the issue.”	100%	\$250 per hour or part thereof in which the Contractor is not in compliance with the KPI
5	Priority 3 - The Contractor shall “resolve” each Priority 3 issue within forty-eight (48) hours of “becoming aware of the issue.”	100%	\$100 per eight ( 8) hours or part thereof in which the Contractor is not in compliance with the KPI
6	In the event that the Contractor determines that a Priority 1 or 2 issue cannot be resolved within the required time period based on the assigned priority level, the Contractor shall provide a resolution schedule for the Authority’s approval within eight (8) hours of the Contractor becoming aware of the Priority 1 or 2 issue.  Note: The Authority’s Approval of a resolution schedule that is not in compliance with the KPIs does not relieve the Contractor of any associated invoice adjustment.	100%	\$500 per hour or part thereof in which the Contractor is not in compliance with this KPI
7	All scheduled standard/pre-defined reports shall be available to Users by the scheduled report time/date.	100%	\$500 per day for each day in which any report is not in compliance with the KPI
8	All standard/pre-defined System reports shall be generated and available to the User within ten (10) seconds from the report request submission by the User. Compliance will be calculated using a monthly average of the report generation time.	100%	\$500 per day for each report that is not in compliance with the KPI
9	Latency in the transmission of Completed Transactions to the CCSS shall be no more than one hour.	100% of Transactions	\$500 per day for each day not in compliance with the KPI
10	Latency in the transmission and processing of CCSS inbound and outbound Amendments shall be no more than fifteen (15) minutes.	100% of Amendments	\$500 per day for each day not in compliance with the KPI
11	Latency in the transmission and processing of Collection Amendments and Transactions shall be no more than fifteen (15) minutes.	100% of Amendments	\$500 per day for each day not in compliance with the KPI
12	Latency in the transmission of the POSI list (including full and incremental files) to TOBS and/or the RTCS shall be no more than fifteen (15) minutes.	100% of all POSI list files	\$500 per day for each day not in compliance with the KPI



**Operational Back Office System**  
**Appendix J - Key Performance Indicators (KPIs)**

KPI #	Key Performance Indicators	Adjustment Threshold	Invoice Adjustment (Reduction for Non-Compliance)
<b>Disaster Recovery</b>			
13	In case of production system failure and transfer of production to the DR site, the Recovery Point Objective (RPO) shall not exceed 5 seconds.	5 seconds	\$5,000 per occurrence for which the KPI is not met.
14	In case of primary system failure, the transfer of production to the Disaster Recovery site shall be completed with a Recovery Time Objective (RTO) of 4 hours.	4 hours	\$5,000 per occurrence for which the KPI is not met.
15	During the annual DR test, the OBOS shall meet the RTO KPI of 4 hours.		\$2,500 per test failure for which the KPI is not met and \$2,500 per week until a retest successfully demonstrates compliance with the KPI.
<b>System Security/Audits</b>			
16	Contractor or System deficiencies disclosed as a result of any required audits, assessments or scans shall be resolved within 10 Business Days of the report date or within the time period agreed to by the Authority, via written Approval of the Contractor's remediation plan.	10 Business Days	\$500 per day for each unresolved issue that is not in compliance with the KPI.

# **Appendix K**

## Authority Volumes

## Operational Back-Office System Appendix K – Authority Volumes

The following are the approximate Transaction Volumes and data sizes for the Authority.

	<b>Amount</b>
FY 2017 Total Transactions	57,801,568
FY 2018 Total Transactions	57,065,066
FY 2019 Total Transactions	61,457,408
FY 2020 Total Transactions	54,253,464
FY 2021 Total Transactions	52,989,998
FY 2022 Total Transactions	66,462,908
FY 2023 Total Transactions	75,278,074
FY 2024 Total Transactions	78,216,996
Current average percent ETC Transactions	55%
Current average percent IBT Transactions	45%
Peak Transactions per hour	22K
Average Number of Amendments per ETC	1.06
Average Number of Amendments per IBT	2.62
Average Bytes per Transaction (ETC) – including all amendments/files, etc.	10K
Average Bytes per Transaction (IBT) – including all amendments/files, etc.	28K
Current Bytes per image	700K
Plazas - gantries	17
Tolling Lanes	33 lanes 34 shoulders

# **Appendix L**

## Data Retention Schedule

## Operational Back Office System

### Appendix L – Data Retention Schedule

All original Transactional and non-Transactional data shall be stored in the file system or database as follows:

<b>Data Type</b>	<b>On-System Retention</b>	<b>After Retention</b>
Toll Transaction database records	Current Fiscal Year plus previous five Fiscal Years	Archive
Images	Current Fiscal Year plus previous two Fiscal Years	Archive
API messages	1 year	Delete
Collection Files	1 Year	Delete
FHSMV files	1 Year	Delete
POSI Lists	6 Months	Archive
Alerts	1 year	Archive
Maintenance Records	1 Year	Archive
System Logs	1 Year	Delete
User Information	Indefinitely	NA
Configuration files	Current plus previous version	Delete
Custom software	Current plus previous version	Archive
Third party software	Current and previous version	Delete
Monthly Summary T&R Reports	Indefinitely	NA
Rate Tables	Indefinitely	NA

# **Appendix M**

TOBS Interim Database (IDB) Design,  
Transaction API, and ICD

To Be Provided to Shortlisted Proposers