



AUTOMATIC VEHICLE IDENTIFICATION (AVI) READERS AND TRANSPONDERS REQUEST FOR PROPOSALS

Updated through Addendum 6 (October 11, 2016)

Proposal Due Date

~~September 28~~~~October 12~~October 14, 2016, 4:00 p.m. EDST

Physical Delivery Address:

North Carolina Turnpike Authority
Transportation Building
1 South Wilmington Street
Raleigh, NC 27601
Attn: Christina Poucher

Mailing Address:

North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Issue Date: August 30, 2016

**AUTOMATIC VEHICLE IDENTIFICATION (AVI)
READERS AND TRANSPONDERS
REQUEST FOR PROPOSALS (RFP)**

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I. Notice of Request for Proposals

TITLE: Automatic Vehicle Identification (AVI) Readers and Transponders Request for Proposals

ISSUING DATE: August 30, 2016

ISSUING AGENCY: North Carolina Turnpike Authority

CONTACT PERSON: Christina Poucher

I.1. Background and Purpose

The North Carolina Turnpike Authority (NCTA), a business unit of the North Carolina Department of Transportation (NCDOT), was formed in 2002 by the North Carolina General Assembly. The mission of NCTA is to supplement the traditional non-toll transportation system by accelerating the delivery of roadway projects using alternative financing options and facilitating the development, delivery and operation of toll roads. NCTA is authorized to study, plan, develop, and undertake preliminary design work on turnpike projects. NCTA currently operates one toll road, the Triangle Expressway, located in the Raleigh area. The Monroe Expressway is currently under construction by NCTA but not yet opened. Several other projects are under development, including US-74 Express Lanes, which is under final design and is expected to open in March 2018.

NCTA's work is performed by professional teams which include NCTA staff, NCDOT staff and consultants. This arrangement provides management oversight while assuring that necessary expertise is available when needed to advance projects in an efficient and timely manner. The NCTA Director of Toll Road Operations has primary responsibility for this Request for Proposals (RFP) process, including the Automatic Vehicle Identification (AVI) Readers and Transponders Scopes of Work and Requirements addressed in this RFP, the evaluation of the Proposals submitted by Proposers, and the oversight of the resulting Contract

NCTA is requesting written Technical and Price Proposals from qualified proposing contractors ("Proposers") interested in providing the following Services:

- AVI Readers and associated Maintenance on the Monroe Expressway and US-74 Express Lanes and for full replacement of AVI Equipment on the Triangle Expressway.
- This procurement also covers Transponders to be used on all NCTA current and planned facilities. Transponders under procurement include both interoperable and local transponders.
- Contractors awarded a Contract to provide these Equipment and Services shall be required to cooperate and coordinate with the Roadside Toll Collection System (RTCS) Contractor(s) to deliver an integrated and high-performance toll collection system.

This is a three-part procurement. Proposers may propose on one, two, or three Categories of Work as further detailed in Section III, Scope of Work and Requirements. Proposers are not required to propose on more than one Category. The Categories of Work are as follows:

- I. Category A: Provide Tri-Protocol Readers, Associated Equipment and Services (also referred to as "Readers")

2. Category B: Provide Time Division Multiplex (TDM) Transponders, Accessories and Services (also referred to as “TDM Transponders”)
3. Category C: Provide Local Transponders, Accessories and Services (also referred to as “Local Transponders”)

Proposers who propose on more than one Category shall provide separate Technical and Price Proposals for each Category. Each Category of the procurement will be evaluated and awarded on its own merits on a stand-alone basis.

Should a Proposer be awarded a Contract for more than one Category of Work, NCTA reserves the right to combine the Work into a single Contract; however, it should be noted that two (2) separate **Section V Terms and Conditions** are provided: one for Category A – Readers and one for Categories B – TDM Transponders and C – Local Transponders.

I.2. Scope of Services

The following is a summary of the Services being procured under this procurement. For additional details, refer to the specific sections noted within **Section III, Scope of Work and Requirements**.

1. Category A: Provide Tri-Protocol Readers, Associated Equipment and Services:

- Tri-Protocol Readers supporting the TDM, SeGo, and 6C protocols for the Monroe Expressway, US-74 Express Lanes, and the Triangle Expressway;
- Antennas for use in an Open Road Tolling (ORT) configuration to properly deploy and utilize the Tri-Protocol Readers as part of an integrated RTCS;
- Other Reader-related Equipment required to properly deploy and utilize the Tri-Protocol Readers as part of an integrated RTCS;
- Equipment Certification;
- Technical Support;
- Maintenance Support;
- Training; and
- Documentation.

Please refer to **Section III, Scope of Work and Requirements**, Section 2 for detailed Requirements.

2. Category B: Provide TDM Transponders, Accessories and Services:

- Interior, windshield-mounted, Hard Case TDM Transponders with associated mounting components;
- Interior, windshield-mounted, Hard Case, Toll/HOV declarable TDM Transponders with associated mounting components;
- Exterior, license plate/roof-mounted, Hard Case TDM Transponders with associated mounting components;
- Handheld Readers supporting the TDM Protocol;
- Transponder Programmers supporting the TDM Protocol;

- Training in the use and maintenance of the Handheld Readers and Transponder Programmers;
- Documentation; and
- Ancillary services related to the purchase, shipping and return of Transponders.

Please refer to **Section III, Scope of Work and Requirements**, Section 3 for detailed Requirements.

3. Category C: Provide Local Transponders, Accessories and Services:

- Interior, windshield mounted, Sticker Transponders supporting either the SeGo or 6C Protocol with associated mounting components;
- Handheld Readers supporting the same protocol as the proposed Interior Transponders;
- Transponder Programmers supporting the same Protocol as the proposed Interior Transponders;
- Training in the use and maintenance of the Handheld Readers and Transponder Programmers;
- Documentation;
- Ancillary services related to the purchase, shipping and return of Transponders; and
- Optionally: Exterior, Hard Case or Sticker Transponders supporting the same protocol as the proposed Interior Transponders with associated mounting components.

Please refer to **Section III, Scope of Work and Requirements**, Section 4 for detailed Requirements.

I.3. NCTA Contact

The Director of Toll Road Operations oversees this procurement; however, any questions in regard to this Notice or requests for an RFP package shall be directed in writing, by email to avirfp@ncdot.gov.

I.4. Information Posting

It is the responsibility of all prospective Proposers interested in responding to this RFP to routinely check the NCTA website at <https://connect.ncdot.gov/business/Turnpike/> for any revisions, responses to questions, addenda, and changes to schedule and announcements related to this RFP. NCTA will also develop an email distribution list of contact persons for those Proposers who have attended the Industry Forum conducted in June 2016 and/or who have asked questions in writing in accordance with the RFP instructions and will email this additional information to such contact persons; however, this does not relieve Proposers of the responsibility to be aware of all additional information related to this RFP posted via the website. NCTA and NCDOT grant permission to use their respective logos on Proposal Submittals.

2. General Information for Proposers

2.1. Schedule

Table I-1 provides a planned schedule for this RFP process, listed in the order of occurrence. NCTA reserves the right to change any or all of these dates as it deems necessary or convenient in its discretion. In the event of such a date change, Proposers will be notified in accordance with **Section I, Administrative**, Section 1.4 Information Posting.

Table I-1 Procurement Schedule

Event or Due Date	Date
RFP Issued	August 30, 2016
Proposer Questions Due	September 21 ¹⁴ , 2016 (4:00 p.m. EDT)
NCTA Responses to all Questions Completed	September 28 ¹ , 2016
Proposals (Technical and Price) Due	September 28 ^{October 12} , 2016 (4:00 p.m. EDT)
Notification of Proposers Shortlisted for Oral Presentations	October 21 ¹² , 2016
Oral Presentations (Proposers to be notified as to the specific schedule within the time period identified)	October 20 and 21, 2016 ^{November 2 and 3, 2016}
Award of Contract(s) and Negotiation Period	October 31 – November 7, 2016 ^{November 14 – November 29, 2016}
Notice(s) to Proceed	November 14 ²⁹ , 2016

Proposal Due Date: Technical Proposals and Price Proposals will be received by NCTA until the due date and time provided in Table I-1 Procurement Schedule.

2.2. Policy Statement

This procurement shall be conducted in accordance with all applicable Federal and State laws and regulations and the policies and procedures of the NCTA, as those may be amended. All future amendments to any such laws, regulations and applicable NCTA policies and procedures shall be applicable to this procurement.

2.3. RFP Inquiries and Notices

Any questions regarding this RFP shall be directed in writing to the email address identified in **Section I, Administrative**, Section 1.3. Only written inquiries will be accepted by NCTA, and only written responses will be binding upon NCTA. Any inquiries received after the deadline referenced in Table I-1 may or may not be answered by NCTA at NCTA's sole discretion. All responses to inquiries will be posted on the NCTA website at <https://connect.ncdot.gov/business/Turnpike/>. Proposers shall use the form provided in **Exhibit D-8, Forms** when submitting questions to be addressed by NCTA.

2.4. Non-Solicitation Provision

From the date that this RFP is issued until the award of an AVI Readers and Transponders Contract(s) is announced, Proposers shall only contact NCTA in the manner identified in **Section I, Administrative**, Section 1.3 with respect to any facet of this procurement. Proposers shall not be permitted to contact any NCTA or NCDOT employee, agent, or Evaluation Committee member with respect to this procurement. Violation of this provision shall result in the disqualification of the Proposer's Proposal.

2.5. Cost Incurred Responsibility

All costs incurred by any interested party in responding to this RFP shall be borne by such interested party; NCTA will have no responsibility whatsoever for any associated direct or indirect costs.

2.6. Right to Reject

NCTA retains the right and option to reject any and all Proposals.

2.7. Responsiveness of Proposals

NCTA reserves the right to reject any Proposal as non-responsive if the Proposal fails to include any of the required information in the specified manner and order, as further detailed in **Section IV, Proposal Contents and Submission**.

2.8. Right to Cancel

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

2.9. Right to Amend and Addenda

NCTA reserves the right to amend, insert, or delete any item in this RFP if it is determined to be in the best interest of NCTA. If it becomes necessary to revise any part of this RFP, a written addendum to the solicitation will be sent via email to the RFP email list and will be posted to NCTA's website in accordance with **Section I, Administrative**, Section 1.4 Information Posting. NCTA expects to issue the last addendum no later than the date for NCTA Response to All Questions Completed provided in Table I-I Procurement Schedule. NCTA 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 to these RFP Documents or in the Questions and Answers as posted on the NCTA website. In the case of a conflict between addenda, the latest addendum shall apply.

Proposers are required to confirm the receipt of all addenda issued to this RFP by completing **Exhibit D-II, Forms** and including the completed form in the Proposal Section 6.

2.10. Written Clarifications

NCTA may request written clarifications to Proposals. NCTA will identify in its request the due date for response. If the requested information is not timely received, the Proposer's scores may be adversely affected.

2.11. Oral or Referenced Explanations

NCTA will not be bound by oral explanations or instructions given by anyone at any time during the Proposal process or after Contract award. NCTA will not consider Proposer-referenced information not included in the Proposal; however, NCTA may consider other sources in the evaluation of Proposals, such as reference reviews, financial ratings, and Proposer oral presentations.

2.12 Oral Presentations and Interviews

NCTA reserves the right to request oral presentations and interviews with Proposers if NCTA decides that oral presentation and interviews are in its best interests. See **Section I, Administrative**, Section 3 Proposal Evaluation for more details.

In advance of any oral presentations and interviews, Proposers will be given detailed instructions on what the format and content of the presentation and interview will be and how to respond to specific questions regarding their Proposals.

2.13. Proposal Submittal Deadline

Complete and separate Technical Proposals and Price Proposals shall be delivered to the front desk of the North Carolina Department of Transportation (NCDOT) building location presented on the cover page of this RFP, before the due date and time provided in Table I-I Procurement Schedule, where they will be logged in as received. NCTA will not accept Proposals delivered after the stated due date and time.

2.14. Submittal Responsibility

The responsibility for submitting a Proposal to NCTA on or before the stated time and date will be solely and strictly the responsibility of the Proposer. NCTA will in no way be responsible for delays caused by the United States mail delivery, common carrier, or any other occurrence.

2.15. Waivers

NCTA may waive minor informalities or irregularities in Proposals received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on NCTA's interest and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

2.16. Proposal Disposition

Proposers shall identify trade secrets or proprietary information as instructed in **Section IV, Proposal Contents and Submission**, Section 2.1 Submission of Technical Proposal (Item 6). NCTA will: 1) make a best effort to maintain confidentiality; 2) dispose of all unsuccessful print and electronic Proposals upon successful award of Contract; and 3) have no ownership rights to print or electronic data from unsuccessful Proposals. All other Technical and Price Proposal materials shall become property of NCTA.

2.17. Modification or Withdrawal of Proposals

NCTA will permit modifications to a Proposal after Proposal Submittal until the specified due date and time for accepting Proposals provided in Table I-I Procurement Schedule. The Proposal may be picked up by a representative of the Proposer provided that the request to modify is in writing, is executed by the Proposer or the Proposer's duly authorized representative, and is filed with NCTA. It is the Proposer's responsibility to resubmit a Proposal before the deadline in accordance with the instructions and requirements for Proposal submission detailed in this RFP.

A Proposer may withdraw a Proposal without prejudice prior to the Submittal deadline provided in Table I-I Procurement Schedule, provided that the request is in writing, is executed by the Proposer or the Proposer's duly authorized representative, and is filed with NCTA.

2.18. Contractual Obligations

NCTA 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 NCTA. Further, all exceptions must be taken in accordance with the instructions for Proposal Section 5 set forth in **Section IV, Proposal Contents and Submission**, Section 1.2 Content of Technical Proposal.

2.19. Proposer's Bid

By submitting a Proposal to NCTA, the Proposer agrees that the Contractor's Technical Proposal and Price Proposal shall remain effective for two hundred and forty (240) Days after the deadline for submitting the Proposal.

2.20. Registration to Conduct Business in North Carolina

Proposers and Subcontractors wishing to be considered shall be properly registered and licensed to conduct business in the State of North Carolina with the Office of the Secretary of State at the time the Proposal is submitted. It is the responsibility of the Proposers to verify the registration of any corporate subsidiary or Subcontractor prior to submitting a Proposal.

2.21. Disadvantaged, Minority, Women Business Enterprises (Race and Gender Neutral)

2.21.1. Policy

It is the policy of the NCTA to comply with NCDOT's Disadvantaged Business Enterprises (DBE) Program and ensure that small businesses have an equal opportunity to compete fairly for and to participate in the performance of contracts financed in whole or in part by Federal and State funds. NCDOT sets DBE, Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) utilization goals for all construction projects. This Contract for goods and services specific to establishing and operating a toll collection system is not a construction contract and does not contain utilization goals. However, the Contractor is encouraged to give every opportunity to allow DBE/MBE/WBE Subconsultant participation on all contracts and supplemental agreements.

2.21.2. Obligation

In compliance with Title VI, 23 CRF 200, 230, 635, 117(d) and (e) and 49 CFR Parts 21 and 26, the firm and subconsultant shall not discriminate on the basis of race, religion, color, creed, national origin, age, disability, or sex in the performance of this Contract. Failure by the firm to comply with these requirements is a material breach of this Contract, which will result in the termination of this Contract, or such other remedy as NCTA deems necessary.

2.21.3. Participation

Due to the Scope of Work and Requirements for this Contract, specific Project goals are not established. However, NCTA encourages the utilization of Small Professional Services Firms (SPSF) subconsultants and/or suppliers on professional services contracts let by NCDOT. All DBE/MBE and WBE firms currently certified by the NCDOT Unified Certification Program (UCP) automatically qualify as a SPSF.

2.21.4. Listing of Subconsultants

The firm, at the time of Proposal Submittal, shall submit a list of all known Small Professional Service Firms (SPSF) that will participate in the performance of the identified Work. The participation of each SPSF shall be submitted on a separate RS-2 Form. In the event the firm has no SPSF/Subconsultant participation, the firm shall indicate this on the RS-2 Form by entering the word 'none' or the number 'zero' and the form shall be signed and submitted with the Technical Proposal. The RS-2 Form is provided in **Exhibit D-2, Forms**. The form may also be accessed on the website at: <https://connect.ncdot.gov/business/Turnpike/Documents/Form%20RS-2%20Subcontract.pdf>. See form instructions for each requirement. For TIP enter the "Type of Work"; for "Submitted by" enter Subcontractor name and name of person responsible for Subcontractor performance; for "Recommended by" enter name of prime Proposer and person responsible for delivery of Services. See instruction no. 7 on form. **An RS-2 Form is required for all Subcontractors whether or not they are considered a SPSF entity.**

The RS-2 Form shall be included in Proposal Section 6 Forms as instructed in **Section IV, Proposal Contents and Submission**.

2.21.5. Directory of Approved Transportation Firms

For Subconsultants to be considered for SPSF utilization, a firm must be certified as SPSF and prequalified through North Carolina's Prequalification Unit. Real-time information about firms that are prequalified and approved through North Carolina's Prequalification Unit is available in the Directory of Firms. The Directory can be accessed at <https://partner.ncdot.gov/VendorDirectory/default.html>.

2.21.6. Reporting Participation

When payments are made to Subconsultants, including material suppliers, firms at all levels (firm, Subconsultant, or subfirm) shall provide NCTA's contract administrator (the addressee for invoices under this Contract) with an accounting of said payments. The accounting shall be listed on NCTA's Subcontractor Payment Information Form (Form DBE-IS). In the event the firm has no Subconsultant participation, the firm shall indicate this on the Form DBE-IS by entering the word 'none' or the number 'zero' and the form shall be signed. Form DBE-IS may be accessed on the website at <https://connect.ncdot.gov/Pages/default.aspx>.

A responsible fiscal officer of the payee firm, or Subconsultant, who can attest to the date and amount of the payments shall certify that the accounting is correct on the Form DBE-IS by affixing his/ her signature. This information shall be submitted as part of the requests for payments made to NCTA.

2.22. Federal Aid Requirements

Due to the potential of Federal Aid in development of various portions of the AVI Readers and Transponders Project, NCTA has provided related instructions and information in Appendix A, Standard Special Provisions Required Contract Provisions Federal-Aid Construction Contracts and Appendix B, U.S. Department of Transportation Hotline. Proposers shall also include the appropriate completed Non-Collusion Forms provided in **Exhibit D-9, Forms** in Proposal Section 6.

3. Proposal Evaluation

An evaluation and negotiation process for each Work Category will be conducted as set forth in this Section 3 using a Best Value process to allow NCTA to award the Contract to the Proposer providing the Best Value for each of the three Work Categories, recognizing that Best Value may result in award to other than the lowest price or highest technically-qualified Proposal. By using this method, the overall ranking may be adjusted up or down by the Evaluation Committee when considered with or traded-off against other, non-price factors. Best Value procurement methods are authorized by G.S. §143-135.9 and in accordance with NCTA Policies and Procedures adopted by the NCTA Board as of February 18, 2009.

3.1. Pass / Fail Screening

1. Packages will be opened upon receipt and checked for completeness. Proposals which are considered incomplete will not be evaluated further. Completeness includes all Proposal sections, correctly completed forms, and required information.
2. Each Proposal will subsequently be reviewed to ensure that the Proposer meets the minimum Proposer project experience qualifications. See **Section IV, Proposal Contents and Submission**, Section 1.2 Content of Technical Proposal- Proposal Section I Firm and Team Qualifications (Item 6) for additional instructions.
3. Proposers who did not meet the Pass / Fail Screening will be notified immediately after the screening is complete. Proposers are advised that NCTA is not obligated to ask for, or accept after the Proposal due date, data that is essential for a complete and thorough evaluation of the Proposal.

3.2. Technical Proposal Evaluation

1. The evaluation process will consist of a quantitative scoring and ranking of the Technical Proposals in order to ascertain which Proposer best meets NCTA's needs for the AVI Readers and Transponders procurement for each of the three Categories. The Technical Proposals will be evaluated on their material content and their responsiveness and degree of adherence to **Section III, Scope of Work and Requirements** set forth in this document. The Evaluation Committee will review and evaluate the Technical Proposals and the other related Contract information submitted to ensure that the Proposer understands the Scope of Work and Requirements and has clearly expressed its intent to meet the requirements of the Contract.

2. **Preliminary Technical Scoring.** Following Technical Proposal review, the Evaluation Committee will score the Technical Proposals with maximum potential technical score points for each Technical Proposal Category as shown in **Section I, Administrative**, Section 3.4, Table I-2.
3. **Oral Presentations and Interviews.** NCTA may invite Proposers to participate in oral presentations and interviews. The oral presentations and interviews will provide an opportunity for the Evaluation Committee to further its understanding of the Technical Proposals.
4. **Updated Technical Scoring.** After the oral presentations and interviews, the Evaluation Committee will update its preliminary technical scoring. The updated scoring will consider both the Technical Proposal and the results of the oral presentations and interviews with maximum potential technical score points for each Technical Proposal Category as shown in **Section I, Administrative**, Section 3.4, Table I-2.

3.3. Price Proposal Evaluation

1. After compilation of the updated scores for Technical Proposals following the oral presentations and interviews, if any, the Evaluation Committee will open the sealed Price Proposals.
2. The Evaluation Committee will review the Price Proposals for:
 - a. Completeness of the Price Proposal packages; and
 - b. Overall Proposal prices within a reasonable proximity to the NCTA Engineer's Estimate.
3. The Evaluation Committee will then apply the formula provided in this **Section I, Administrative**, Section 3.4 to the total price provided in each Proposal to calculate the price score.

3.4. Consolidated Technical and Price Evaluations

1. The Technical Proposals for Category A – Readers will be weighted at seventy percent (70%) of the total score on a one-hundred (100) point scale. Price Proposals will be weighted at thirty percent (30%) of the total score.
2. The Technical Proposals for Categories B – TDM Transponders and C – Local Transponders will be weighted at thirty-five percent (35%) of the total score on a one-hundred (100) point scale. Price Proposals will be weighted at sixty-five percent (65%) of the total score.
3. Price scores are calculated using the following formula: $(\text{lowest price} / \text{proposed price}) \times \text{maximum possible Price Proposal points for the Category (see items 1 and 2 in this section)} = \text{Proposer's awarded points}$.
4. The overall Proposals are scored as summarized in Table I-2:

Table I-2 Proposal Elements and Maximum Possible Points Breakdown

Proposal Elements	Category A Readers	Category B TDM Transponders	Category C Local Transponders
Proposal Section 1: Firm Qualifications	10	5	5
Proposal Section 2: Key Team Qualifications	10	2.5	2.5
Proposal Section 3: Approach to Scope of Work and Requirements	30	20	20
Proposal Section 4: Approach to Project Plan and Implementation	10	5	5
Proposal Section 5: Approach to Maintenance	10	2.5	2.5
Maximum Possible Technical Points	70	35	35
Maximum Possible Price Proposal Points	30	65	65
Maximum Possible Total Consolidated Score	100	100	100

- After the initial Consolidated Technical and Price Proposal evaluations have been completed and initial scores ranked for each Category, the Evaluation Committee will make a determination regarding Best Value for NCTA, considering the numerical (technical plus price) scoring as well as other factors, and a Finalist Proposer(s) will be selected for each Category. Each Category will be evaluated completely independent of the evaluation performed on the other Categories. A Proposer may be selected as a finalist for more than one Category based on the independent evaluation results for each Category.

3.5 Negotiations and Best and Final Offers

NCTA may elect to negotiate with one or more Finalist Proposers determined to be in a competitive range within each Category based upon the evaluation process described in **Section I, Administrative**, Section 3. Finalist Proposers may be requested to provide Best and Final Offers (BAFOs) in response. If BAFOs are requested, NCTA will evaluate the BAFOs and adjust its evaluation of the Proposer’s respective Proposal accordingly.

Further, should negotiations with one Proposer not be successful, NCTA reserves the right to negotiate with the next ranked Proposer or Proposers at NCTA's sole determination.

4. Award and Execution of Contract

4.1. Notification of Award

Following evaluations and negotiations, NCTA may execute a Contract with the successful Proposer for each of the Categories. NCTA will notify the successful Proposer of the award by telephone. NCTA will also deliver a notification of award letter via email.

The successful Proposer in each Category will have fourteen (14) Calendar Days after receipt of the notification of award to furnish the performance and payment bonds and insurance required, if any, in the notification of award letter. If the successful Proposer defaults or otherwise is unable to enter into a Contract with NCTA, NCTA may begin negotiations with the next highest ranked Proposer or Proposers as further set forth in **Section I, Administrative**, Section 3.5, Negotiation and Best and Final Offers.

If Certifications of Readers and/or Transponders required under **Section III, Scope of Work and Requirements** are not provided by a Contractor within 120 days of notification award the Contract may be terminated by NCTA and NCTA may award to the next highest ranked Proposer or issue a new procurement.

The NCTA award or continuation of any Contract for or related to its AVI Readers and Transponders is subject to the availability of funding.

NCTA will issue an original Contract for execution by the successful Proposer for each of the Categories. After the Contract is executed by NCTA, a duplicate copy will be mailed back to the Contractor.

Originals. The original copy will be retained in the NCTA office. On Federal-Aid projects, a true copy will be sent to the Federal Highway Administration (FHWA).

Bonding Requirements. All bid and performance bonds will be handled using the following procedures. The NCTA bid bond form is available online at:

https://connect.ncdot.gov/resources/Specifications/2006ResurfacingProjects/Bid_Bond.pdf

I. Payment and Performance Bonds:

- a. Proposer shall submit evidence that it is capable of obtaining Contract payment and performance bonds in an amount equal to one-hundred percent (100%) of the Base Contract Proposal Price for the Implementation Phase and for one (1) year of Maintenance as further set forth in subparagraph b. A surety letter submitted with the Proposal is acceptable evidence of meeting this bond requirement. The form for this letter is included as **Exhibit D-10, Forms**. The completed letter shall be included in the Technical Proposal Section 6.
- b. The initial bonds shall be in the amount of
 - For Category A – Readers: One-hundred percent (100%) of the total Project Implementation Phase for the Base Contract price as set forth in the Proposer's

Price Proposal Sheet A-1, Category A – Readers Summary, Implementation Phase Sub-Total, Grand Total Price (\$) (cell G9). This bond amount will be decreased after commissioning of each of the Monroe Expressway, US-74 Express Lanes and Triangle Expressway AVI replacement in the value of the completed Work. The Implementation Phase Bonds may be annually renewable, with renewal to take place each year at the anniversary of Contract execution.

- For Category B – TDM Transponders: One-hundred percent (100%) of the total Project Implementation Phase price as set forth in the Proposer’s Price Proposal Sheet B-1, Category B – TDM Transponders Summary, Category B – TDM Implementation Phase Sub-Total (cell ~~C11~~C12), less the costs of the ~~Transponders bonding~~ (cells ~~C17, C23, and C29~~ C6). The Implementation Phase Bonds may be annually renewable, with renewal to take place each year at the anniversary of Contract execution.
- For Category C – Local Transponders- One-hundred percent (100%) of the total Project Implementation Phase price as set forth in the Proposer’s Price Proposal Sheet C-1, Category C – Local Transponders Summary, Category C - Implementation Phase Sub-Total (cell ~~C12~~C11), less the costs of the ~~Transponders bonding~~ (cells ~~C17, C23, and C29~~ C6). The Implementation Phase Bonds may be annually renewable, with renewal to take place each year at the anniversary of Contract execution.

2. Bid Bonds (All Categories)

- a. For each Category on which it proposes, the Proposer shall submit with its Price Proposal a bid bond or bid deposit in the amount of at least five percent (5%) of the dollar total also used as the basis of the payment and performance bonds as follows:
 - Category A – Readers: Sheet A-1: Implementation Phase Sub-Total, Grand Total Price (\$) (cell G9).
 - Category B – TDM Transponders: Sheet B-1: Implementation Phase Sub-Total (cell C11).
 - Category C – Local Transponders Sheet C-1: Implementation Phase Sub-Total (cell C11).
- b. For each Category of Work Contractor may submit certified and cashiers’ checks in lieu of bid bonds.
- c. All bid bonds will be retained by the NCTA until the payment and performance bonds are furnished by the successful Proposer and Contract is executed. After such time, all bid bonds will be destroyed, unless the individual bid bond forms contain a note indicating that the bonds be returned to the Contractor or surety and all certified and cashiers’ checks will be refunded.

4.2 Insurance Requirements

The Contractor, at all times during the term of this Agreement, shall maintain insurance in such form as is satisfactory to the NCTA, and shall furnish the NCTA with continuing evidence of insurance as

provided in this Section 4.2. With respect to any insurance policy required pursuant to this Agreement, all such policies shall be issued by companies licensed to do business in the State of North Carolina and all such insurance shall meet all laws of the State of North Carolina. The Proposer shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this Contract.

Contractor shall provide to the NCTA an endorsement showing the amount of coverage that is reserved specific to this Project. The NCTA will be named as an “additional insured” on all applicable coverage. The Contractor shall provide NCTA with certificates showing the required coverage to be in effect and showing NCTA to be an additional insured. Such policies shall provide that the insurance is not cancelable except upon thirty (30) Days prior written Notice to the NCTA. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty (30) Days advance Notice shall be given to the NCTA or as provided in accordance with North Carolina law. Copies of all insurance policies and endorsements shall be provided to the NCTA upon request.

The NCTA reserves the right to review all insurance coverage and amounts of insurance coverage on an annual basis and to require the Contractor to adjust the insurance coverage and amounts of insurance coverage based on industry standards for contracts of this size and type. Contractor shall timely pay all premiums and deductibles when due for all insurance coverage required herein. The NCTA will not accept self-insurance retention (SIRs).

The Contractor shall not commence any Work until it has obtained the following types of insurance, and a certificate of such insurance has been received and Approved by the NCTA. Nor shall the Contractor allow any Subcontractor to commence Work on this Project until all insurance required of the Subcontractor has been obtained. The Proposer who is the intended awardee shall submit the required Certificates of Insurance to the NCTA within fourteen (14) Days of Notice of award.

During the term of the Contract, the Contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the following coverage and limits:

1. Worker’s Compensation - The Contractor shall provide and maintain Worker’s Compensation Insurance, as required by the laws of North Carolina, as well as employer’s liability coverage with minimum limits of \$100,000.00, covering all of Contractor’s employees who are engaged in any Work under the Contract. If any Work is sublet, the Contractor shall require the Subcontractor to provide the same coverage for any of his employees engaged in any Work under the Contract; and
2. Commercial General Liability Policy - Combined Single Limits: \$1,000,000.00 per person, \$3,000,000.00 per occurrence. The Commercial General Liability Policy shall include contractual liability coverage and must be on an “occurrence” basis. A Comprehensive General Liability Policy may be substituted for the Commercial General Liability Policy if the Comprehensive General Liability Policy has been endorsed to insure contractual liability, broad form property damage, and personal injury liability.
3. Business Automobile Liability Policy - To include liability coverage covering all owned, hired and non-owned vehicles used in connection with the Contract. Combined Single Limits: \$1,000,000.00 per person \$3,000,000.00 per occurrence; and

4. Professional Liability Policy- Any other provision herein to the contrary notwithstanding, the Professional Liability Policy must be with a company authorized to do business in the State of North Carolina, affording professional liability coverage for the professional services to be rendered in accordance with this Contract in the amount of at least one million dollars (\$1,000,000). The Contractor shall maintain professional liability coverage for a minimum of three (3) years after completion of the Services rendered under this Contract.

Providing and maintaining adequate insurance coverage described herein is a material obligation of the Contractor and is of the essence of this Contract. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the Contract.

Subcontractors Insurance. The Contractor shall either require each Subcontractor to obtain and maintain Workers' Compensation Insurance, Commercial General Liability, Business Automobile Liability and Professional Liability coverage similar to those required in this section for the Contractor, or any other coverage deemed necessary to the successful performance of the Contract, or cover Subcontractors under the Contractor's policies. Such coverage shall be in effect at all times that a Subcontractor is performing Work under the Contract. The Contractor shall have responsibility to enforce Subcontractor compliance with these or similar insurance requirements; however, the Contractor shall upon request provide NCTA acceptable evidenced of insurance for any Subcontractor. 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.

5. Protest Procedure

Each Proposer, by submitting its Proposal, expressly recognizes the limitation on its rights to protest contained herein, expressly waives all other rights and remedies, and agrees that the decision on any protest, as provided herein, shall be final and conclusive. These provisions are included in these RFP documents expressly in consideration for such waiver and agreement by the Proposers. If a Proposer disregards, disputes, or does not follow the exclusive protest remedies set forth in these RFP documents, it shall indemnify, defend, and hold NCTA and NCDOT, and their respective Board members, directors, officials, employees, agents, representative, and consultants, harmless from and against all liabilities, expenses, costs, fees, and damages incurred or suffered as a result of such Proposer actions. The submission of a Proposal shall be deemed the Proposer's irrevocable and unconditional agreement with such indemnification obligation.

- I. Any request for a protest meeting shall be in writing and filed with the NCTA Executive Director at the address specified below and shall be received within thirty (30) consecutive Calendar Days from the date of the Contract award. Any protest not set forth in writing, including oral objections, is not a protest and shall be null and void.

NCTA Executive Director
1578 Mail Service Center
Raleigh, NC 27699-1578

2. All protests shall include the following: 1) name and address of protestor; 2) RFP name and date of issuance; 3) reasons for protest; and 4) supporting exhibits, evidence, or documents to support the protest.
3. If the protest does not contain this information or if the Executive Director determines that a meeting would serve no purpose, the Executive Director may, within ten (10) consecutive Calendar Days from the date of receipt of the letter, respond in writing to the Proposer and refuse the protest meeting request.
4. If the protest meeting is granted, the Executive Director will attempt to schedule the meeting within thirty (30) consecutive Calendar Days after receipt of the letter, or as soon as possible thereafter. Within ten (10) consecutive Calendar Days from the date of the protest meeting, the Executive Director will respond to the Proposer in writing with the Executive Director's decision.
5. Protest Submittal Requirements – See Appendix C, North Carolina Turnpike Authority Policies and Procedures for the Procurement of Commodities and Services (February 2009).
6. All Proposals shall be irrevocable until final administrative and judicial disposition of a protest.

Section II

Defined Terms and Acronyms

Defined Terms (All Categories)

Term	Definition
6C	The ISO/IEC 18000-63 standard, commonly known as 6C.
Acceptance	Formal Approval of a Phase or Deliverable as further set forth in Section V, Terms and Conditions
Account	A customer Account managed by the NCTA CSC Back Office System.
Addenda	Written changes to the RFP documents issued by NCTA during the RFP process.
Agreement	The written Contract between the NCTA and the Contractor covering Section III, Scope of Work and Requirements and the other Contract Documents attached to the Agreement and made a part thereof. Also referred to as “Contract”.
Agreement Term	The duration of the Agreement, including any authorized renewals and extensions. Also referred to as “Contract Term”.
All-Electronic Tolling (AET)	Cashless toll collection system where tolls are collected electronically while vehicles travel through the Toll Zone without stopping.
Amendment	Change in the Agreement executed in writing made by adding, altering, or omitting a certain part or term.
Antenna	A device receiving and transmitting signals. In this case an RFID AVI antenna receives data from a Transponder in a vehicle and passes this data onto a Reader.
Approve	The term “Approve” and its variations (e.g., “Approval” or “Approved”), when capitalized in this Agreement refer to Acceptance of a process, vendor, document, condition, action or Deliverable in writing by NCTA. Approval by NCTA shall not be construed to mean endorsement or assumption of liability by the NCTA nor shall it relieve the Contractor of its responsibilities under the Agreement.
Authority	See “North Carolina Turnpike Authority”.
Automatic Vehicle Identification (AVI)	A system of integrated devices and components that perform the automatic recording and reporting of vehicle transactions through electronic media in a toll revenue collection system.
Automatic Vehicle Identification (AVI) Protocols	Communication standards for transmission of Transponder data. Also referred to as “Protocols”.
Automatic Vehicle Identification (AVI) Reader	Takes information received from the AVI Antenna, processes the information and outputs it to the lane controller.

Term	Definition
Back Office System (BOS)	NCTA CSC Back Office Hardware and Software provided by a third-party Contractor to support the customer service, account management, transaction processing and interfaces to Interoperable Agencies.
Business Day	A weekday, excluding NCTA observed Holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.
Calendar Day	Every day, including weekends and Holidays. beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.
Category	One of three separate areas of Work covered under this AVI RFP.
Change Order	Change to quantities of Work within the scope as further detailed in to the Section V, Contract .
Commissioning	The test that occurs upon completion and Approval of installation of the RTCS that indicates readiness for toll operations. The term Commissioning includes variations of “Commissioned” and “Commissioning”.
Configurable	Functionality provided such that changes to the related thresholds, values, methods, parameters and/or settings shall not require additional Software development and Software testing effort. Verification of the change for this purpose is not considered testing. This same meaning applies to all variations, e.g. “Configuration”, “Configured”, or “Configuring”.
Conformed Scope of Work	The updated Scope of Work and Requirements as agreed-to between NCTA and the Contractor, including executed addenda generated during the RFP process.
Contract	See “Agreement”.
Contract Documents	The documents forming the Contract including RFP, Conformed Scope of Work, Addenda, exhibits and appendices thereto, Amendments, Contract modifications, Contractor Proposal and all provisions required by law to be inserted in the Contract, whether actually inserted or not.
Contract Term	See “Agreement Term”.
Contractor	The person, firm, corporation or entity undertaking the execution of the Work with whom NCTA has entered into an Agreement.
Contractor 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.

Term	Definition
Customer Service Center Contractor	The party providing Back Office System Services.
Days	Calendar Days, unless otherwise specified.
Deliverable(s)	All Documentation and any items of any nature submitted by the Contractor to the NCTA’s Project Manager for review and Approval pursuant to the terms of this Agreement. See “Submittal”.
Documentation	Materials, Submittals and Deliverables that provide official information or evidence that serves as a record in accordance with Section III, Scope of Work and Requirements and the Agreement.
Effective Date	The date the Agreement is fully executed by the Contractor and by NCTA and all Approvals required by NCTA contracting procedures have been obtained.
Equipment	See “Hardware”.
Equipment Certification	<p>When used in the context of the 6C protocol, the term Equipment Certification shall mean certification issued by OmniAir Certification Services for 6C Toll Interoperability.</p> <p>When used in the context of the TDM protocol, the term Equipment Certification shall mean that the Reader or Transponder, as applicable, has successfully executed and received NCTA Approval of the NCTA Approved E-ZPass Group testing regimen.</p> <p>When used in the context of the SeGo protocol, the term Equipment Certification shall mean that the Reader or Transponder has successfully executed and received NCTA Approval of the NCTA Approved SeGo testing regimen.</p>
Excessive Failure	A defect in function, labor or materials that is present in ten percent (10%) or more of any Transponder Hardware or Equipment provided by the Category B TDM Transponder or Category C Local Transponder Contractor under this Agreement, or any component thereof.
Express Lanes	Lanes within existing expressway, arterial highway facilities or lanes comprising a separate facility where multiple operational strategies, including pricing, may be utilized and actively adjusted as needed for the purpose of achieving pre-defined performance objectives.
Exterior Local Transponder	An Exterior Mount Hard Case Transponder or Exterior Mount Sticker Transponder which uses the 6C or SeGo Protocol.
Exterior Mount Hard Case Transponder	A Transponder enclosed in a monolithic plastic case, designed for Installation on the exterior of a vehicle.

Term	Definition
Exterior Mount Sticker Transponder	A Transponder which is packaged as a flexible self-adhesive sticker and designed for Installation on the exterior of a vehicle.
Extra Work	Changes resulting in additions or deletions to the type or value of Services provided pursuant to this Agreement as directed by the NCTA.
E-ZPass	The registered trademark owned by the Port Authority of New York and New Jersey that is used by member toll agencies to represent their interoperable electronic toll collection program.
E-ZPass Group	The collection of tolling entities that utilize a common AVI technology and operate Interoperable, reciprocal customer service centers in support of E-ZPass.
Final Acceptance	Final Acceptance of the AVI Readers will be considered by NCTA to have occurred, when NCTA has received and Approved all Project documents, drawings, Software, interface data, test data, Contractor and Equipment Certifications, manuals and other Deliverables.
Force Majeure	The circumstances as defined in this Agreement whereby either party is excused from meeting a Performance Requirement specified in this Agreement.
Guaranteed Delivery Lead Time	The Contractor’s guaranteed timeframe given in Calendar Days from when an order for Equipment is received by the Contractor until the Equipment is delivered to NCTA.
Hardware	“Hardware” is an all-inclusive term to mean the Equipment, Hardware, associated peripherals, associated firmware, electrical and other materials and supplies necessary or furnished by the Contractor to provide Services pursuant to the Contract Documents.
High Occupancy Vehicle (HOV) Self-Declaration Transponder	Transponder equipped with a button or switch which allows the user to declare the HOV status of their vehicle.
Holiday(s)	Days that are designated by NCTA as Holidays for purposes of this Agreement.
Implementation Phase	The period of time beginning with the Effective Date and ending upon Approval of Commissioning.
Installation	The process of mounting, connecting, configuring, and tuning the AVI Reader and associated Equipment to place it into production-ready condition.

Term	Definition
Interior Mount Sticker Transponder	A Transponder which is packaged as a flexible self-adhesive sticker and designed for Installation on the inside surface of a vehicle windshield.
Interoperable (Interoperability)	A relationship between tolling agencies or entities where their systems are capable of capturing and transmitting transactions generated on an agency’s roads by customers of the other agency or entity. Generally requires that reciprocity agreements between agencies and entities are in place to govern payments and reconciliation.
Interoperable Agency(ies)	Agencies that have a relationship that is Interoperable with NCTA and/or other Agencies.
Local Transponder	Transponder provided for Category C – Local Transponders and accessories.
Maintenance	Services, including Equipment and parts, performed by the Contractor pursuant to Section III, Scope of Work and Requirements . May also be referred to as “Maintenance Services”.
Maintenance Phase	The period of time beginning with Commissioning through end of Contract in which Maintenance Services are provided.
Maintenance Services	The Maintenance and related Services required to be furnished by the Contractor.
NCTA Designated Representatives	Person or persons authorized by the NCTA to represent NCTA in all dealings with the Contractor.
NCTA Operations Center	See “Customer Service Center”.
North Carolina Turnpike Authority (NCTA)	The business unit of the North Carolina Department of Transportation, including its designated agents, responsible for this procurement and Contract. May also be referred to as the “Authority”.
Notice	A formal communication addressing legal and contractual matters, not applicable to daily Implementation and operation and Maintenance communications.
Notice to Proceed (NTP)	The written authorization by the NCTA designating the date and time for the Contractor to commence Work.
OmniAir Certification Services	An association of independent testing agencies and laboratories which develops and executes certification programs for Intelligent Transportation (ITS) industry standards.

Term	Definition
Open-Road Tolling (ORT)	A system that electronically collects tolls while vehicles pass through the tolling zone at highway speeds. Can operate at toll locations that also have conventional toll lanes.
Order of Precedence	The order in which Agreement documents control in the event of a conflict or ambiguity in such documents.
Original Equipment Manufacturer	A company that manufactures a part or subsystem that is used in another company's end product.
Performance Requirements	The required level of performance standards for this Contract as set forth in the Terms and Conditions and Section III, Scope of Work and Requirements.
Pervasive Defect	A persistent or reoccurring issue or problem as further set forth in Category A Reader Section V, Terms and Conditions.
Plan(s)	Contractor Deliverable that identifies approach to a particular aspect of the Work submitted for Approval in accordance with Section III, Scope of Work and Requirements.
Price Proposal	Proposer pricing provided in response to this RFP and in accordance with the instructions provided herein. Contractor's Approved Price Proposal is included as a Contract Document.
Project	The total Work set forth in Section III, Scope of Work and Requirements and as further set forth and detailed in the Agreement Documents.
Project Manager	The NCTA's duly authorized representative designated to manage this Work and Agreement.
Project Schedule	The detailed schedule developed and maintained by the Contractor that lists all tasks associated with Section III, Scope of Work and Requirements. The schedule is subject to Approval by the NCTA. Upon Approval it becomes the Approved Baseline Project Schedule pursuant to the Agreement.
Proposal	Contractor's entire submission in response to this RFP.
Proposer	A firm that has submitted a Proposal in response to this RFP.
Read / Write	Functionality that allows AVI Readers to transmit data to a Transponder, and allows the Transponders to receive and store or act upon that data
Reader	Synonymous with AVI Reader.

Term	Definition
Reader-to-Reader	A condition which exists between two (2) or more AVI Readers, e.g. interference caused by one (1) Reader being in close proximity to another, or synchronization between two (2) Readers to eliminate such interference.
Requirements	Each of the required Work activities in numbered form as set forth in Section III, Scope of Work and Requirements that the Contractor shall perform, including but not limited to technical, functional, and Performance.
Revenue Day	The twenty-four (24) hour toll collection day expressed from 12:00:00 a.m. to 11:59:59 p.m. in military time unless otherwise Approved during Design.
Roadside Equipment (RSE)	The components of the AVI Reader not mounted on the overhead gantry structure.
Roadside Toll Collection System (RTCS)	System deployed by NCTA on its roadways to collect toll revenue.
Scope of Work and Requirements	The Agreement Document found in Section III, Scope of Work and Requirements that captures and defines the Work activities, Submittals and Deliverables the Contractor must execute in performance of the Work.
SeGo	The Super Ego brand of transponders produced by TransCore, or the communication protocol used by those transponders.
Services	All Contractor activities required by this Agreement. Also referred to as “Work”.
Software	All computer programs, firmware, media, procedures, rules and associated Documentation pertaining to the control and operation of the data processing and data storage for the Reader, as further set forth in Section III, Scope of Work and Requirements . Software includes all associated features and functions described in Section III, Scope of Work and Requirements , 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.
State	The State of North Carolina and its agencies.

Term	Definition
Subcontractor	Any person, firm 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”.
Time Division Multiplexing (TDM)	In context of this RFP, refers to the Protocol used by E-ZPass compatible Transponders and Readers.
TDM Transponder	Transponder provided for Category B – Time Division Multiplex (TDM) Transponders and accessories.
Toll Facility	A collection of Tolling Locations within limits of a roadway or roadway segment.
Toll Zone	A single Tolling Location covering one direction of traffic.
Tolling Location	One or more Toll Zones located in close proximity covering tolling in opposite directions of traffic.
Transponder	In-vehicle radio frequency device read by the AVI Antenna(s) and reader Equipment in in a toll lane.
Transponder Capture Rate	The percentage of correctly mounted Transponders passing through the Transponder Capture Zone which are successfully and accurately captured by the AVI Reader.
Transponder Capture Zone	The area within a Toll Zone in which the AVI Antenna will capture a Transponder that is correctly mounted on a vehicle.
Transponder Programmer	A device which is capable of programming the programmable data fields in a Transponder.
Transponder Reporting Accuracy	The percentage of Transponders captured by the AVI Reader whose data is accurately and completely reported by the Reader to the RTCS.
Transponder Reporting Speed	The amount of time required for the AVI Reader to begin reporting a Transponder which has entered the Transponder Capture Zone
Transponder Write Performance	The percentage of Transponders which enter the Transponder Capture Zone to which the AVI Reader successfully and accurately completes a write operation.
Tri-Protocol Reader	An AVI Reader capable of communicating with Transponders using three different AVI Protocols.
Updates	Generally, refers to a patch released for existing Software to fix any identified bugs, errors or security issues; may also include providing support for new Hardware, as well as performance tuning.

Term	Definition
Upgrade	Generally, refers to transforming existing Software to a new version; provides new features and functionalities rather than fixing existing bugs, errors or security issues but does not include significant new functionality.
Work	See “Services”.

Acronyms (All Categories)

Acronym	Meaning
AET	All-Electronic Tolling
AVI	Automatic Vehicle Identification
BAFO(s)	Best and Final Offer(s)
BOS	Back Office System
CSWRD	Conformed Scope of Work and Requirements Document
DBE	Disadvantaged Business Enterprise
DMV	Department of Motor Vehicles
EMI	Electromagnetic Interference
ETC	Electronic Toll Collection
EZG	E-ZPass Group
FAT	Factory Acceptance Test
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
GP	General Purpose Lane
GS (G.S.)	North Carolina General Statutes
HOV	High Occupancy Vehicle
HTML	Hypertext Transfer Markup Language
HTTPS	Hypertext Transfer Protocol Secure
IAG	E-ZPass Interagency Group
ICD	Interface Control Document
ID	Identification
IEEE	Institute of Electrical and Electronics Engineers
IP	Internet Protocol
IRS	Internal Revenue Service
ISO	International Standards Organization
MBE/WBE	Minority Business Enterprise/Women Based Enterprise
MS	Microsoft

Acronym	Meaning
MSDS	Material Safety Data Sheet
MTBF	Mean Time Between Failures
MTP	Master Test Plan
MTTR	Mean Time To Repair
NCDOT	North Carolina Department of Transportation
NCTA	North Carolina Turnpike Authority
NCUCP	North Carolina Unified Certification Program
NDA	Non-Disclosure Agreement
NECA	National Electric(al) Contractors Association
NEMA	National Electrical Manufacturers Association
NTP	Network Time Protocol
NTP	Notice to Proceed
OCS	OmniAir Certification Services
OIT	Onsite Installation Testing
OSHA	Occupational Safety and Health Administration
PDF	Portable Document Format
QA	Quality Assurance
QC	Quality Control
RF	Radio Frequency
RFI	Radio Frequency Interference
RFID	Radio Frequency Identification
RFP	Request for Proposal
RSE	Roadside Equipment
RTCS	Roadside Toll Collection System
RSE	Roadside Equipment
SOV	Single Occupancy Vehicle
SOW	Scope of Work
SPSF	Small Professional Services Firm

Acronym	Meaning
TDM	Time Division Multiplex
UL	Underwriter's Laboratory
USDOT	United States Department of Transportation
USPS	United States Postal Service

Section III

Scope of Work and Requirements

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I. Background and General Description of Scope of Work

NCTA currently utilizes an AVI subsystem provided by TransCore integrated into a Roadside Toll Collection System (RTCS) provided by Xerox. This RTCS is deployed on the Triangle Expressway as an All-Electronic Tolling (AET) system. In addition to this existing toll facility, NCTA has several planned tolled facilities. Please refer to **Section III, Scope of Work and Requirements**, Section 1.2 for details on the existing and planned toll facilities and the current AVI technology utilized.

The purpose of this procurement is to acquire new, tri-protocol AVI Readers and associated Equipment and Services for deployment on the Monroe Expressway, the US-74 Express Lanes and for retrofit on the Triangle Expressway, replacing the current AVI Readers and associated Equipment installed on that toll facility. These AVI Readers will be required to read Transponders procured under this procurement as well as existing NCTA and E-ZPass Group Transponders already in circulation. In addition to the AVI Readers and associated Equipment, this procurement includes associated Services to support the RTCS Contractors associated with each toll facility so as to ensure proper usage, operations and maintenance of the AVI Readers and associated Equipment.

The scope of this procurement also includes two categories of AVI Transponders: TDM Transponders and Local Transponders. The TDM Transponders required will include declarable TDM Transponders to support planned Express Lane facilities. Both categories of Transponders will include Handheld Readers, Transponder Programmers and associated Services.

I.1 Procurement Concept

This procurement is structured as a three-part procurement whereby Proposers can propose on any combination of one or more of the following three categories:

Category A: Provide Tri-Protocol Readers, Associated Equipment and Services

Category B: Provide TDM Transponders, Accessories and Services

Category C: Provide Local Transponders, Accessories and Services

I.1.1 **Category A: Provide Tri-Protocol Readers, Associated Equipment and Services**

The scope of work for this category includes the following Equipment and Services:

- Tri-Protocol Readers supporting the TDM, SeGo and 6C protocols for the Monroe Expressway and US-74 Express Lanes, and the Triangle Expressway;
- Antennas for use in an Open Road Tolling (ORT) configuration to properly deploy and utilize the Tri-Protocol Readers as part of an integrated RTCS;
- Other Reader-related Equipment required to properly deploy and utilize the Tri-Protocol Readers as part of an integrated RTCS;
- Equipment Certification;
- Technical Support;
- Maintenance Support;
- Training; and

- Documentation.

Services for this Category include the provision of direct technical support to RTCS Contractors. RTCS Contractors will have primary responsibility for integration of AVI Readers and associated Equipment within their RTCS, Installation and testing of the RTCS and for Operations and Maintenance (O&M). The selected Contractor shall provide the RTCS Contractors with development Equipment, as well as onsite and remote technical support throughout all phases of the RTCS projects (Implementation and Maintenance).

This list is not meant to be all inclusive. Please refer to **Section III, Scope of Work and Requirements**, Section 2 for detailed Requirements.

1.1.2 **Category B: Provide TDM Transponders, Accessories and Services**

The scope of work for this Category includes the following Equipment and Services:

- Interior, windshield-mounted, Hard Case TDM Transponders with associated mounting components;
- Interior, windshield-mounted, Hard Case, Toll/HOV declarable TDM Transponders with associated mounting components;
- Exterior, license plate/roof mounted, Hard Case TDM Transponders with associated mounting components;
- Handheld Readers supporting the TDM protocol;
- Transponder Programmers supporting the TDM protocol;
- Training in the use and Maintenance of the Handheld Readers and Transponder Programmers;
- Documentation; and
- Ancillary Services related to the purchase, shipping and return of Transponders.

Services for this Category include the provision of direct technical support to NCTA as well as to the selected AVI Reader Contractor and the Customer Service Center (CSC) operations Contractor. The selected Contractor will provide the CSC Contractor with onsite and remote technical support throughout all phases of the implementation including training, order management, warranty support, inventory control and Transponder testing/programming.

This list is not meant to be all inclusive. Please refer to **Section III, Scope of Work and Requirements**, Section 3 for detailed Requirements.

1.1.3 **Category C: Provide Local Transponders, Accessories and Services**

The scope of work for this Category includes the following Equipment and Services:

- Interior, windshield mounted, Sticker Transponders supporting either the SeGo or 6C protocol with associated mounting components;
- Handheld Readers supporting the same protocol as the proposed Interior Transponders;
- Transponder Programmers supporting the same protocol as the proposed Interior Transponders;
- Training in the use and Maintenance of the Handheld Readers and Transponder Programmers;

- Documentation;
- Ancillary Services related to the purchase, shipping and return of Transponders; and
- Optionally: Exterior, Hard Case or Sticker Transponders supporting the same protocol as the proposed Interior Transponders with associated mounting components.

Services for this Category include the provision of direct technical support to NCTA as well as to the selected AVI Reader Contractor and the Customer Service Center (CSC) operations Contractor. The selected Contractor will provide the CSC Contractor with onsite and remote technical support throughout all phases of the implementation including training, order management, warranty support, inventory control and Transponder testing/programming.

This list is not meant to be all inclusive. Please refer to **Section III, Scope of Work and Requirements**, Section 4 for detailed Requirements.

1.2 Technical Background

NCTA utilizes an all-electronic non-stop tolling system where there are no toll plazas at which drivers stop and pay cash tolls. Instead, free-flow toll zones are employed where vehicles are detected while traveling at highway speeds. Payments are accepted through an Electronic Toll Collection (ETC) program called NC Quick Pass or a video billing program called Bill by Mail.

The function of the CSC is to provide customer-facing activities such as account management services and customer call and walk-in services. The CSC also provides support services such as mail room, transponder inventory management and fulfillment, financial/banking, accounting and reconciliation, Bill by Mail document quality control, video image review and processing services, and interoperability/reciprocity management with E-ZPass, SunPass and Peach Pass.

Transponders in use are of three types with a breakdown of active NCTA issued Transponders in circulation as shown in Table III-I.

Table III-I: NCTA issued Transponders in Circulation

Transponder Type	Protocols Supported	Approximate Number of Active NCTA Transponders in Circulation
Interior Sticker (eGo Plus)	SeGo	130,000
Interior Hard Case (eZGo Anywhere IAG Std OBU)	SeGo/TDM	79,000
Exterior Hard Case (eZGo Anywhere Exterior)	SeGo/TDM	1,800

The existing Back Office System (BOS) was provided by Xerox and is operated by AECOM (the CSC Contractor). The CSC Contractor is responsible for the distribution of Transponders, Transponder programming via TransCore provided Transponder Programmers, and Transponder testing via TransCore provided Handheld Readers.

1.2.1 Existing NCTA Facilities

The Triangle Expressway is an 18.8-mile toll road that extends the partially complete “Outer Loop” around the greater Raleigh, North Carolina area from I-40 to NC-55 Bypass. The Triangle Expressway currently comprises two sections: Toll NC-147 and Toll NC-540.

Toll NC-147 includes 3.4 miles of toll road between I-40 and Toll NC-540. This section of the Triangle Expressway includes interchanges at Hopson Road, Davis Drive, and NC-540. It opened to toll-free traffic on December 8, 2011; tolling on this section began on January 3, 2012.

Toll NC-540 includes 15.4 miles of toll road between NC-54 in western Cary and the NC-55 Bypass near the Town of Holly Springs. The section from NC-54 to US-64 includes interchanges at NC-54, NC-55, Green Level West Road and US-64 and opened to toll-free traffic on August 1, 2012. Tolling on this section began on August 2, 2012. The section from US-64 to NC-55 Bypass includes interchanges at S. Salem St., US-1 and NC-55 Bypass and opened to toll-free traffic on December 20, 2012. Tolling on this section began on January 2, 2013. An illustration of the Triangle Expressway can be seen in Figure III-1.

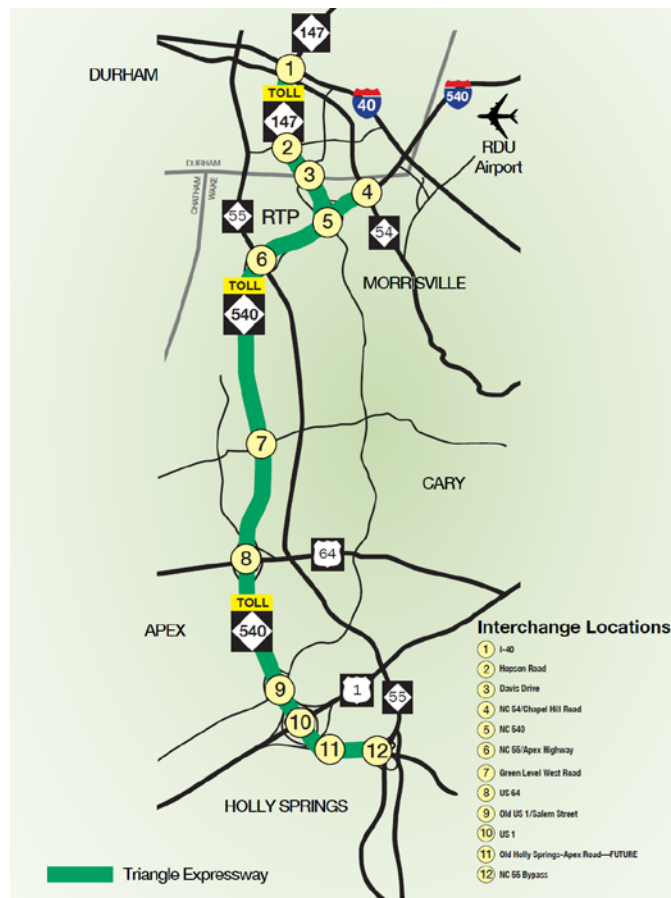


Figure III-1: Triangle Expressway Limits

The Triangle Expressway currently consists of 18 AET Zones. A construction project (underway) will build a new interchange at Old Holly Springs-Apex Road and will widen two existing mainline Toll Zones. Refer to Table III-2 for the Triangle Expressway Toll Zone Lane Configurations.

Table III-2: Triangle Expressway Toll Zone Lane Configurations

Triangle Expressway Toll Zone Lane Configurations								
Location	Zone	Inside Shoulder Width	Number of Travel Lanes	Travel Lane Width	Outside Shoulder Width	Direction	Current Antenna Count	Current Reader Count
1	1-1*	12 feet	4	12 feet	12 feet	NB	11	11
1	1-2*	12 feet	4	12 feet	12 feet	SB	11	11
2	2-1	4 feet	1	18 feet	14 feet	NB	5	5
2	2-2	4 feet	1	18 feet	14 feet	SB	5	5
3	3-1	14 feet	3	12 feet	14 feet	NB	9	9
3	3-2	14 feet	3	12 feet	14 feet	SB	9	9
4	4-1	8 feet	2	12 feet	12 feet	NB	7	7
4	4-2	8 feet	1	13 feet	12 feet	SB	5	5
5	5-1	14 feet	3	12 feet	14 feet	NB	9	9
5	5-2	14 feet	3	12 feet	14 feet	SB	9	9
6	6-1	12 feet	3	12 feet	12 feet	NB	9	9
6	6-2	12 feet	4	12 feet	12 feet	SB	11	11
6	6-3	12 feet	2	12 feet	12 feet	NB	6	6
6	6-4	4 feet	1	12 feet	12 feet	WB	5	5
7	7-1	12 feet	2	12 feet	14 feet	WB	6	6
7	7-2	12 feet	2	12 feet	14 feet	SB	6	6
8	8-1	4 feet	1	12 feet	14 feet	WB	5	5
8	8-2	12 feet	1	12 feet	14 feet	EB	6	6
9	V-1**	12 feet	1	16 feet	12 feet	NB	6	6
9	V-2**	4 feet	2	12 feet	12 feet	SB	6	6
Totals:							146	146

* Toll Zones 1-1 and 1-2 are currently undergoing construction to have an extra travel lane added to each. The Current Antenna and Reader Counts include these extra lanes. Drawings have not yet been finalized.

**Toll Zones V-1 and V-2 are under construction. The Current Antenna and Readers Counts include these lanes. Drawings have not yet been finalized.

The Triangle Expressway AVI System comprises TransCore Encompass 6 AVI Readers operating in a dual-protocol configuration (SeGo and TDM).

The RTCS Contractor responsible for the Installation and Maintenance of the RTCS and all associated Hardware and Software is Xerox. Xerox is also responsible for Operations and Maintenance of the AVI Equipment with support provided by TransCore.

1.2.2 Planned Toll Facilities

The AVI Readers and Transponders procured under this RFP will be utilized on the Monroe Expressway and US-74 Express Lanes described below. The Transponders will also be utilized on the I-77 Express Lanes described below. Finally, the AVI Readers and Transponders may be used on any other future NCTA Toll Facilities.

1.2.2.1. Monroe Expressway

The Monroe Expressway will extend over 21 miles from US-74 near I-485 in Mecklenburg County to US-74 between the towns of Wingate and Marshville in Union County, as shown in Figure III-2 below. It is anticipated to open in November of 2018.

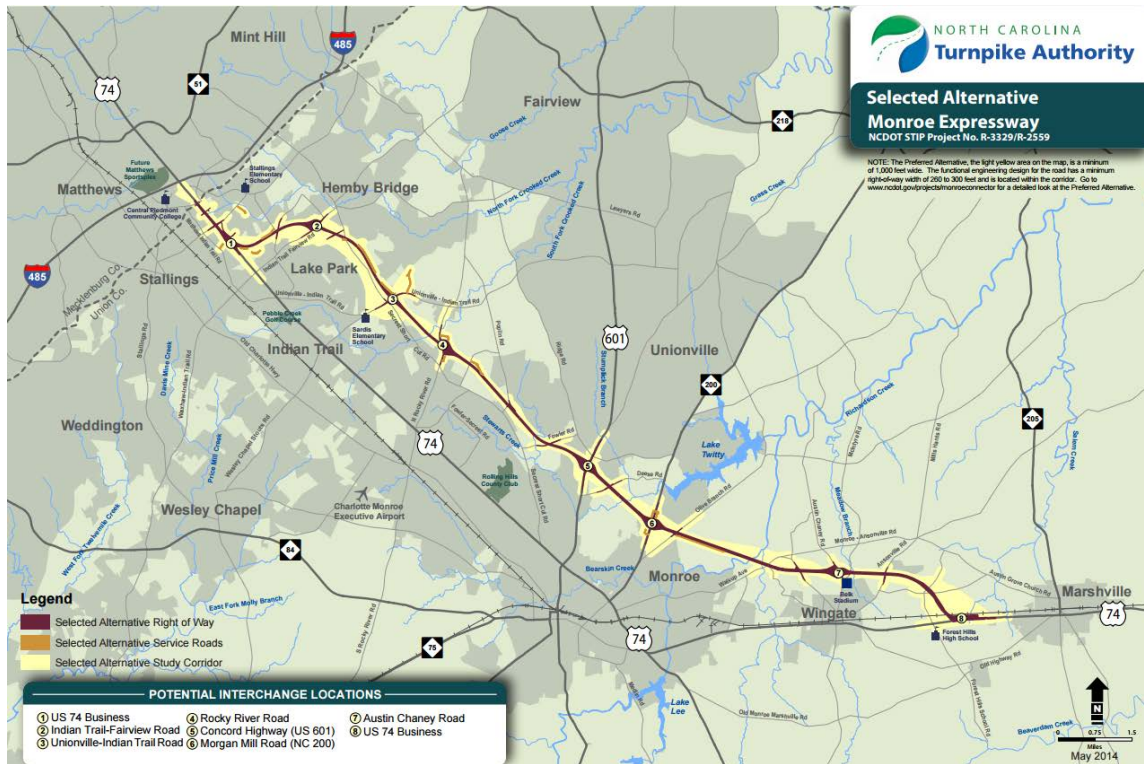


Figure III-2: Monroe Expressway Limits

The Monroe Expressway is a greenfield AET Project and will include the following:

- AVI and Image-based tolling;
- Seven (7) barrier-based bi-directional mainline Toll Locations for a total of fourteen (14) total Toll Zones (See Table III-3 on the following page);
- Dual-gantry design providing for a 50-foot separation between the gantries; and
- An asphalt roadway surface, including through the Tolling Zone.

Table III-3: Monroe Expressway Toll Zone Lane Configurations

Monroe Expressway Toll Zone Lane Configurations*						
Location	Zone	Inside Shoulder Width	Number of Travel Lanes	Travel Lane Width	Outside Shoulder Width	Direction
2	M03	6 feet	2	12 feet	12 feet	WB
2	M04	6 feet	2	12 feet	12 feet	EB
3	M05	6 feet	2	12 feet	12 feet	WB
3	M06	6 feet	2	12 feet	12 feet	EB
4	M07	6 feet	2	12 feet	12 feet	WB
4	M08	6 feet	2	12 feet	12 feet	EB
5	M09	6 feet	2	12 feet	12 feet	WB
5	M10	6 feet	2	12 feet	12 feet	EB
6	M11	6 feet	2	12 feet	12 feet	WB
6	M12	6 feet	2	12 feet	12 feet	EB
7	M13	6 feet	2	12 feet	12 feet	WB
7	M14	6 feet	2	12 feet	12 feet	EB
8	M15	6 feet	2	12 feet	12 feet	WB
8	M16	6 feet	2	12 feet	12 feet	EB

* Note: Location 1 was eliminated from the Monroe Expressway plans.

1.2.2.2. **US-74 Express Lanes**

The US-74 Express Lanes Project will convert the median of Independence Boulevard (US-74) in Charlotte from I-277 to Wallace Lane to Express Lanes. The Project length is 5.8 miles and is presented in Figure III-3 below. It is anticipated to open in March of 2018.

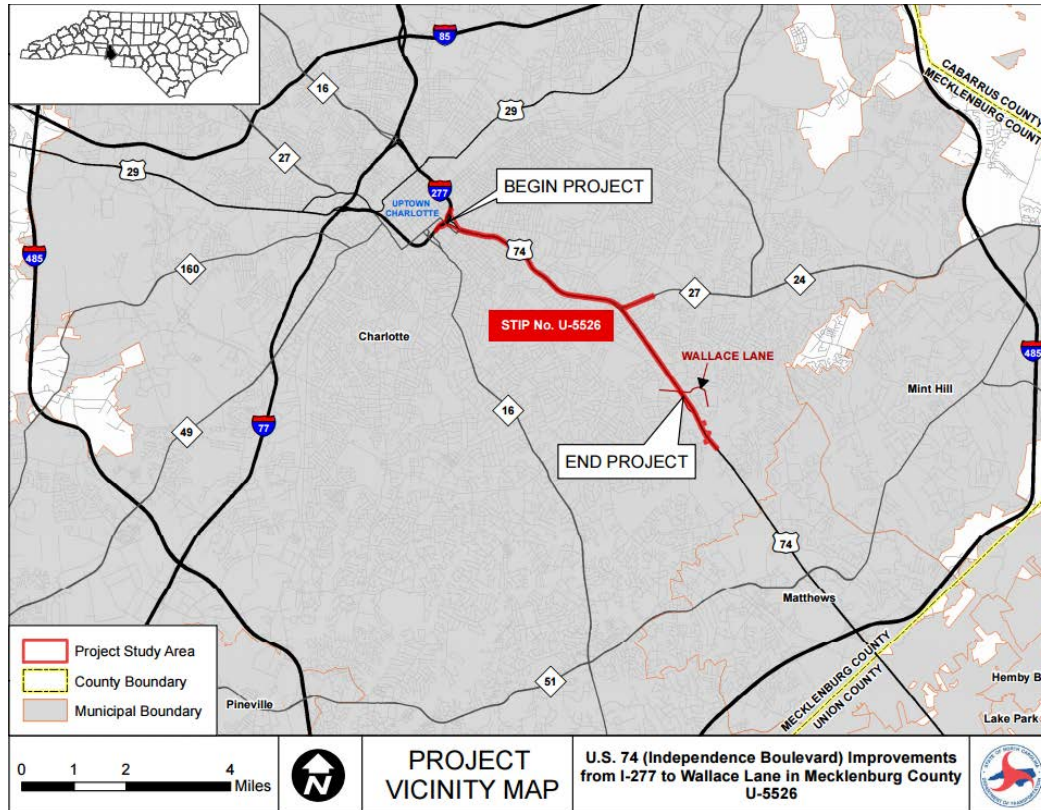


Figure III-3: US- 74 Express Lanes Project Limits

The US-74 Express Lanes Project will convert US-74 bus lanes located in the median of Independence Boulevard (US-74) in Charlotte from I-277 to Wallace Lane to reversible HOV/HOT Express Lanes. The Project length is 5.8 miles. This Project is currently envisioned as two co-located Toll Zones with single reversible lanes that are planned to open in early 2018. At the Tolling Location, the reversible lanes traverse two Toll Zones with each Toll Zone having a single reversible lane (See Table III-4).

Table III-4: US-74 Express Lanes Toll Zone Lane Configurations

US-74 Express Lanes Toll Zone Lane Configurations						
Location	Zone	Inside Shoulder Width	Number of Travel Lanes	Travel Lane Width	Outside Shoulder Width	Direction
1	U01	4 feet	1 (rev)	12 feet	10 feet	EB/WB (reversible)
1	U02	4 feet	1 (rev)	12 feet	10 feet	EB/WB (reversible)

The Project includes the following:

- Conversion of an existing bus lane to a reversible Express Lane;
- AVI and Image-based tolling; and
- Dynamic pricing.

Current plans require customers who wish to qualify for a toll-free trip to declare their HOV status via an E-ZPass Flex (TDM protocol) compatible switchable Transponder or via a self-declaration application.

1.2.2.3. I-77 Express Lanes

The I-77 Express Lanes project includes approximately 27 miles of I-77 corridor improvements between the I-77/I-277 junction in Charlotte and NC 150 in Mooresville (Mecklenburg and Iredell Counties) as shown in Figure III-4 below. The corridor is of high importance, serving as the primary north-south connector through the region.

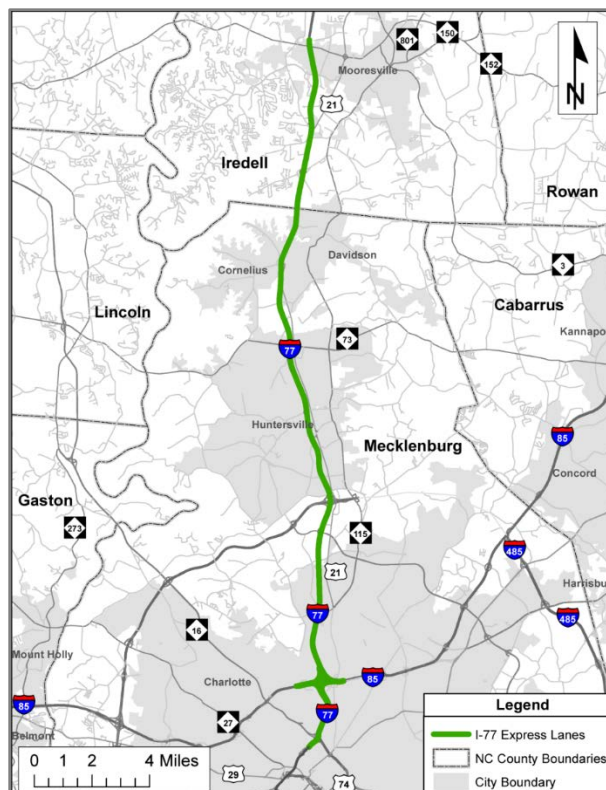


Figure III-4: I-77 Express Lanes Project Limits

This project will be delivered via a public-private partnership (P3) by Cintra Infraestructuras, S.A. (Cintra) which has formed a Special Purpose Vehicle for the project called I-77 Mobility Partners, LLC. I-77 Mobility Partners, LLC, will design, build, operate and maintain the project, including the RTCS, in exchange for toll revenue generated from the Express Lanes. The first section of the project is expected to open in late 2017.

NCTA will provide back office services to the project via its BOS and CSC Contractors. Transponders procured under this RFP will be required to support the project and be interoperable with the RTCS being deployed by I-77 Mobility Partners, LLC.

1.2.2.4. Other Proposed Toll Facilities

In addition to the Toll Facilities currently under construction there are several other Toll Facilities under development:

- The I-485 Express Lanes, with a tentative construction start date in 2017;
- The Mid-Currituck Bridge, with a tentative construction start date in 2017; and
- The complete 540, with construction expected to begin in 2018.

1.2.3 Current Interoperability Status

NCTA’s toll program currently supports interoperability via Transponders and/or license plates with the following electronic tolling programs:

- E-ZPass (as a National Affiliate);
- SunPass; and
- Peach Pass.

Transaction counts below are from Calendar Year 2015 and represent both tag and plate-based transactions except as noted:

System	Others on NCTA	NCTA on Others
E-ZPass	3,000K	514K
SunPass	250K	128K
Peach Pass*	5K*	2K

* Peach Pass transactions on NCTA are all via plate as Peach Pass 6C tags cannot be read on the Triangle Expressway.

1.2.4 Future Interoperability

NCTA is active in other interoperability efforts and the Equipment procured under this RFP is expected to support such efforts. These efforts include, but are not limited to:

- National Interoperability (NIOP) – The International Bridge, Tunnel and Turnpike Association (IBBTA) is leading a national effort to meet MAP-21 requirements for national AVI-based interoperability for tolling. The AVI Readers shall fully support the NIOP effort.
- Regional Express Lanes – In addition to Express Lanes within North Carolina, other Express Lanes operate in the E-ZPass region. The AVI Readers shall be fully interoperable with E-ZPass Flex Transponders issued by other E-ZPass members and the declarable TDM Transponders shall be fully interoperable with AVI Readers deployed on other E-ZPass member toll facilities.

2. Category A: Provide Tri-Protocol Readers, Associated Equipment and Services

2.1 Physical / Environmental

2.1.1 Physical Requirements

1	Components shall comply with applicable safety requirements based on the environment in which they will be installed. All overhead and Roadside Equipment (RSE) shall comply with any safety regulations regarding collisions and break-away standards. Equipment shall not pose a health or safety hazard to persons or vehicles. Equipment shall be mountable in accordance with the current version of the Manual on Uniform Traffic Control Devices.
2	Safety labels shall be placed on Equipment as appropriate based on prevailing laws, regulations, and standards. Contactor shall provide the Material Safety Data Sheet (MSDS) for all materials or Equipment that has a Material Safety Data Sheet. The Contractor shall provide any information regarding any other materials that may be considered hazardous or require special handling or disposal.
3	The Reader and Antenna and all other components shall allow for proper grounding and protection against lightning strikes.
4	Contractor shall furnish Cabinets and enclosures shall be equipped with locks controlled by proximity card readers with key cylinder backup <u>to secure the AVI Reader Cabinets and enclosures. The RTCS Contractor will be responsible for installing the locks.</u>
5	Contractor shall coordinate with the RTCS Contractor to ensure cabinet and enclosure locking mechanisms and proximity cards are compatible with the RTCS Access Control and Security Monitoring System (ASCSMS) <u>and the ACSMS proximity cards.</u>

2.1.2 Environmental Requirements

6	The Equipment to be supplied will be installed in areas exposed to the range of climatic conditions found in North Carolina. The Reader and Antenna must operate without degradation in performance in all weather conditions including extreme hot or cold weather, snow, heavy rain, fog and mist-like conditions, high humidity, high wind conditions (120 miles per hour), and vibrations caused either by wind or vehicles.
7	All Equipment provided under this Contract shall be corrosion resistant and remain corrosion resistant for the Contract Term or 10 years, whichever is greater.

2.1.3 Standards Compliance

8	Contractor shall meet all electrical codes, traffic control, seismic considerations, calibration, configuration, and environmental requirements of and including but not limited to:
	<ul style="list-style-type: none"> • National Electric Safety Code;
	<ul style="list-style-type: none"> • National Electrical Contractors Association (NECA);

	<ul style="list-style-type: none"> Occupational Safety and Health Act (OSHA);
	<ul style="list-style-type: none"> National Fire Protection Association (NFPA);
	<ul style="list-style-type: none"> National Electrical Manufacturers Association (NEMA);
	<ul style="list-style-type: none"> Institute of Electrical and Electronic Engineers (IEEE);
	<ul style="list-style-type: none"> Applicable Electronic Industries Association (EIA) Standards for Interface and Intercommunication;
	<ul style="list-style-type: none"> Underwriters Laboratories (UL); and
	<ul style="list-style-type: none"> All locally adopted building codes.
9	Contractor shall adhere to all specifications of the latest NCDOT Standard Specifications and Roadway Standard Drawings at time of construction unless Contractor receives written Approval by the NCTA. NCDOT Standard Specifications are located at: https://connect.ncdot.gov/resources/Specifications/pages/specifications-and-special-provisions.aspx
10	It shall be Contractor’s responsibility to procure all Documentation required to install and adhere to the proper Installation standards, law, ordinance, or codes.

2.2 Hardware Requirements

11	Contractor shall provide AVI Readers that are compatible with the protocols and Performance Requirements set forth in this Scope of Work and Requirements.
12	Contractor shall provide an Enclosure for the Reader rated NEMA 4X or equivalent, suitable for mounting on a concrete pad adjacent to the Toll Zone gantries.
13	All Reader Enclosures shall be solid, made of non-toxic material, and have no sharp edges.
14	The Enclosures, mounting hardware, washers, brackets, screws, bolts and nuts exposed to the outdoor environment shall be constructed of a AISI Type 316L grade stainless steel or an NCTA Approved equal.
15	Reader and Enclosure external cable ports shall be easily accessed for Installation and Maintenance.
16	Contractor shall provide Antennas that are compatible with the protocols and Performance Requirements set forth in this Scope of Work and Requirements.
17	The Antennas shall be rated NEMA 6P or equivalent.
18	Contractor shall specify the types of RF cabling that can be used between the Reader and Antenna, and the conditions under which each cable type can be used including maximum run length for each cable type. Specified RF cables shall be commercially sourced cable that can be purchased separately by NCTA or another Contractor.

19	Contractor shall specify any cabling required to implement RF synchronization between AVI Readers. Specified cable shall be commercially sourced cable that can be purchased separately by NCTA or another Contractor.
20	Contractor shall provide any other ancillary components including, but not limited to, enclosure environmental controls, mounting brackets, fittings, pigtails, cords, and fasteners.
21	Contractor shall coordinate with the RTCS Contractor to ensure Enclosures provide adequate room and environmental controls for both Contractor-supplied Equipment and any required items provided by the RTCS Contractor such as networking devices, power distribution units, etc.
22	Contractor shall provide sufficient quantities of AVI Readers, Antennas, Enclosures and other Equipment necessary to support the RTCS being deployed on the Monroe Expressway. Refer to Section III, Scope of Work and Requirements , Table III-3 and Attachment 4, Monroe Gantry and Layout 50 Percent Plans.
23	Contractor shall provide sufficient quantities of AVI Readers, Antennas, Enclosures and other Equipment necessary to support the RTCS being deployed on the US-74 Express Lanes. Refer to Section III, Scope of Work and Requirements , Table III-4 and Attachment 5, US-74 Express Lanes Conceptual Plans for AET.
24	Contractor shall provide sufficient quantities of AVI Readers, Antennas, Enclosures and other Equipment necessary to support the replacement of AVI Equipment on the Triangle Expressway. Refer to Section III, Scope of Work and Requirements , Table III-2, Attachment I, Triangle Expressway Gantry and Conduit Drawings, and Attachment I I, Triangle Expressway As-Built RTCS Drawings.

2.3 Functional Requirements

2.3.1 Transponder Capture Zone

The RTCS relies on the AVI Reader to provide accurate and predictable data on the position of a Transponder in order to associate that Transponder with a vehicle detected by other sensors. As such, the AVI Reader must detect and report Transponders in the same locations and with the same timings as the current AVI technology.

Refer to Attachment II, Drawing E12b, "NCTA RTCS Open Road Tolling Typical Antenna Reading Zone" which depicts the Transponder Capture Zone dimensions and position relative to the Entry Loop in the existing ORT lanes on the Triangle Expressway. It is expected that the Transponder Capture Zone dimensions for the RTCS deployments on the Monroe Expressway and US-74 Express Lanes will be similar.

The AVI Reader shall support the following Transponder Capture Zone characteristics:

25	The Transponder Capture Zone shall have a longitudinal dimension of approximately 10 feet when a Transponder is walked through the lane at a height of 48 inches from the ground.
26	The Reader shall begin to report the Transponder approximately 3 feet before the leading edge of the entry loop and continue reporting within the next approximately 10 feet.

27	The Transponder Capture Zones for main lanes and straddles shall be identical.
28	The AVI Reader shall be configurable to allow for adjustments to the Transponder Capture Zone.

2.3.2 Lane Coverage

29	For the Triangle Expressway, the AVI Readers shall provide full coverage from roadway edge to roadway edge including all shoulders.
30	For facilities other than the Triangle Expressway, the AVI Readers shall provide full coverage on and between all travel lanes in each Toll Zone. Transponders on vehicles straddling the shoulders by a distance of up to four (4) feet shall be read and reported to the RTCS.
31	The Transponder Capture Zones in the lanes at a Toll Zone shall be tuned such that Transponders in vehicles traveling in the adjacent lanes, but opposite direction of travel, are not reported by the AVI Reader.
32	Transponders on vehicles traveling in the general purpose traffic lanes adjacent to Express Lanes shall not be reported by the AVI Reader.

2.3.3 Network Capability

33	The AVI Reader shall be Internet Protocol (IP) addressable.
34	The AVI Reader shall provide a remotely accessible user interface so that Software lane tuning, diagnostics, configuration changes, firmware upgrades, and other remote support shall be available to NCTA authorized personnel. Setup and configuration of the AVI Reader shall be achievable remotely and shall not require lane closure except for major lane tuning, when initially installed, or when an AVI Reader or Antenna is replaced.
35	The remotely accessible user interface shall provide access via industry standard protocols (e.g. SSH, Telnet, HTTP) and shall not require the use of specialized or proprietary client Software.
36	The remotely accessible user interface shall be password protected and shall provide the ability to change the password(s).

2.3.4 Multiple Reader Synchronization

37	The AVI Reader shall implement a synchronization mechanism to prevent mutual RF interference between AVI Readers.
38	Contractor shall support the RTCS Contractor in carrying out tests at each Installation site to determine if potential Reader-to-Reader RF interference exists which would impact performance.
39	Contractor shall support the RTCS Contractor in implementing Reader-to-Reader synchronization as necessary to prevent performance degradation due to mutual RF interference.

2.3.5 Tri-Protocol Support

40	The AVI Reader shall be a tri-protocol Reader supporting the TDM, SeGo and 6C protocols.
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41	The AVI Reader shall provide the RTCS Contractor full flexibility in setting operational parameters per protocol, such as power and sensitivity, activation field strength, time multiplexing, timing adjustments based on Transponder type, and protocol command sequences.
42	For the TDM protocol, the AVI Reader shall read and report the mode (HOV vs. Toll) of E-ZPass Flex and compatible declarable Transponders.
43	For the TDM protocol, the AVI Reader shall support configuring the Transponder write capability based on the toll facility type. If enabled, data specified by NCTA shall be written to the Transponders. Such data shall include but not be limited to: time, location, and occupancy switch setting at the time the Transponder was read.
44	It is preferred that the AVI Reader allow for configuration or weighting by protocol to allow for improved read Performance of one protocol over another.

2.3.6 Interface

45	The AVI Reader shall interface directly with the RTCS. Contractor shall provide an interface control document to the RTCS Contractor(s) in sufficient detail to allow the RTCS Contractor(s) to implement this interface so that the AVI Reader and RTCS can process Transponder reads in a seamless manner.
46	For each Transponder read in the lane, the AVI Reader shall create and formulate a Transponder Read message to be sent to the RTCS which shall contain all information fields supported by the Transponder type being reported.
47	The AVI Reader shall report diagnostic messages to the RTCS indicating its operating status and alerting the RTCS of any component failures and switchover to any redundant components as applicable. Failures should be stored in a failure log capable of being reviewed by the RTCS Contractor or NCTA via a command message or interactive interface.

2.3.7 Time Synchronization

48	NCTA prefers that the AVI Reader shall support time synchronization via the Network Time Protocol (NTP). If the AVI Reader does not support NTP, it shall support a Time Synchronization message as part of its communications interface with the RTCS, allowing the RTCS to synchronize the AVI Reader's date and time with its own.
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2.3.8 Buffered Transponder Reads

49	The AVI Reader shall buffer Transponder Reads when it is unable to communicate with the RTCS.
50	The AVI Reader shall store buffered Transponder Reads in non-volatile memory with a capacity of not less than 100,000 Transponder Reads.
51	The AVI Reader shall transmit buffered Transponder Reads to the RTCS when communications are reestablished, either automatically or upon receipt of a command from the RTCS.
52	Transmittal of buffered Transponder Reads shall not interfere with, or delay, transmittal of real-time Transponder Reads.

53	Buffered Transponder Reads shall include all data contained in a real-time Transponder Read, in addition to a flag or other indicator to distinguish it from a real-time Transponder Read.
54	The AVI Reader shall allow for removal of buffered Transponder Reads via a portable data storage device in the event that communications cannot be restored.

2.4 Performance Requirements

2.4.1 Transponder Capture Rate

55	A Transponder mounted in accordance with the manufacturer mounting instructions shall be captured by the AVI Reader under all conditions specified in this Scope of Work and Requirements with an accuracy of 99.9%, or no more than one (1) missed read or incorrect capture in one thousand (1,000) equipped vehicle passages.
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2.4.2 Transponder Reporting Accuracy

56	A Transponder that is detected and read by the AVI Reader shall be reported to the RTCS with an accuracy of 100% under all conditions specified in this Scope of Work and Requirements.
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2.4.3 Transponder Reporting Speed

57	The AVI Reader shall report the Transponder data to the RTCS within 70 milliseconds of the Transponder entering the Transponder Capture Zone.
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2.4.4 Transponder Write Performance

58	When configured to write to TDM Transponders, the AVI Reader shall successfully and accurately complete a write operation to associate data with a passing vehicle with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) equipped vehicle passages, under all conditions specified in this Scope of Work and Requirements.
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2.4.5 Lane Identification Accuracy

59	The AVI Reader shall report a Transponder in the lane or straddle in which it is located, or in an immediately adjacent lane or straddle, 99.95% of the time, or no more than five (5) incorrect reports in ten thousand (10,000) equipped vehicle passages.
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2.4.6 Conditions for Performance Requirements

60	The AVI Reader shall meet the Performance Requirements set forth in this Scope of Work and Requirements under the following traffic conditions:
	<ul style="list-style-type: none"> • Vehicles traveling up to 130 <u>100</u> miles per hour;
	<ul style="list-style-type: none"> • Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;

	<ul style="list-style-type: none"> • Vehicles tailgating;
	<ul style="list-style-type: none"> • Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	<ul style="list-style-type: none"> • Vehicles arriving simultaneously at the Transponder Capture Zone; and
	<ul style="list-style-type: none"> • Vehicles changing and/or straddling lanes.
61	The AVI Reader shall meet the Performance Requirements set forth in this Scope of Work and Requirements under all weather conditions.

2.4.7 Reliability and Availability

62	The AVI Reader shall have a Mean Time Between Failures (MTBF) of not less than 30,000 hours.
63	The AVI Reader shall have a Mean Time To Repair (MTTR) of not more than 30 minutes.
64	The AVI Reader shall have a design Life Cycle of not less than 10 years.

2.5 Equipment Certification

While individual E-ZPass and SeGo Certification testing is indicated in the subsections below, Contractor may combine these Equipment Certifications into a single round of testing so long as all individual Equipment Certification Requirements are met.

65	The AVI Readers shall be compliant with IBTTA North American Toll Interoperability Program Electronic Toll Collection Protocol Requirements (see Attachment 3 - IBTTA NIOP Requirements Document).
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2.5.1 E-ZPass Group Equipment Certification

The AVI Reader must be tested and approved for use by a National Affiliate of the E-ZPass Group. NCTA will facilitate discussions with the E-ZPass Group as necessary to achieve such approval. The Contractor is responsible for conducting the necessary testing and providing the necessary documentation to facilitate NCTA’s efforts in this regard. NCTA will provide any Transponders required to support this testing.

66	The AVI Reader shall be formally approved in writing by the E-ZPass Group for use by a National Affiliate before being placed into service.
67	If the proposed AVI Reader has not previously been approved for use by a National Affiliate of the E-ZPass Group, Contractor shall complete to NCTA’s satisfaction the interoperable technology testing required within 90 days of Contract Award. Requirements for such testing are specified in Attachments 6 and 8 and Contractor shall provide NCTA with all necessary testing documentation.

2.5.2 6C Equipment Certification

68	The AVI Reader shall be certified by OmniAir Certification Services (OCS) for 6C Interoperability.
69	If the proposed AVI Reader has not previously been certified by OCS for 6C Interoperability, Contractor shall undertake interoperable technology testing and obtain Certification by OCS within 90 days of Contract Award.

2.5.3 SeGo Equipment Certification

NCTA will provide any Transponders required to support this testing.

70	The AVI Reader shall be interoperable with SeGo Transponders. Contractor shall undertake interoperable technology testing similar to that specified in Attachments 6 and 8 and as Approved by NCTA. Successful completion of testing shall be required before the AVI Reader can be placed into service and shall take place within 90 days of Contract Award.
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2.6 Testing

Although the AVI Reader will undergo specific tests to meet Equipment Certification and compatibility Requirements for individual protocols, additional testing will be required to demonstrate full tri-protocol functionality. This testing will involve production representative configurations and realistic combinations of vehicles and Transponders. In addition, Contractor will support the RTCS Contractor in carrying out their Factory Acceptance Tests (FAT), Onsite Installation Tests (OIT), and Installation and Commissioning Tests.

Refer to Attachment 12, Monroe/US-74 Proposed RTCS Implementation Schedule, and Exhibit A, Project Schedules, for the proposed time frames of the testing activities described herein.

2.6.1 Factory Acceptance Testing

71	The AVI Reader shall successfully complete a Factory Acceptance Test. The FAT shall demonstrate that the AVI Reader, when placed in tri-protocol mode and reading a mixed fleet of Transponder and vehicle types, can meet all Performance Requirements set forth in this Scope of Work and Requirements and produces consistent results in terms of Transponder read/write, lane identification, and Transponder Capture Zone boundaries across all three protocols and various Transponder types (e.g., interior, exterior, switchable, etc.).
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2.6.1.1. General FAT Requirements

72	The FAT shall be conducted by Contractor at Contractor’s facility with actual vehicles and lanes simulating an ORT environment.
73	The AVI Reader test configuration shall be representative of a production Installation at an NCTA Toll Zone.
74	The FAT shall be conducted by Contractor to verify that the AVI Reader performs in conformance with the Contract Requirements.

75	The FAT shall validate that the AVI Reader meets the Requirements of the Contract including but not limited to:
	• Transponder Capture Zone;
	• Lane Coverage;
	• Multiple Reader Synchronization;
	• Tri-Protocol Support;
	• Time Synchronization;
	• Buffered Transponder Reads;
	• Transponder Capture Rate;
	• Transponder Reporting Accuracy (including Transponder data contents);
	• Transponder Reporting Speed;
	• Transponder Write Performance; and
	• Lane Identification Accuracy.

2.6.1.2. Factory Acceptance Test Plan

76	Contractor shall provide to NCTA, for review, comment and final Approval, a Factory Acceptance Test Plan that outlines the scope and testing concepts to be used to validate the AVI Reader compliance to the Requirements in the Contract.
77	Contractor shall provide to NCTA, for review, comment and final Approval a Detailed FAT Procedures Document that is based upon the Approved Factory Acceptance Test Plan.
78	The Factory Acceptance Test Plan and the Detailed FAT Procedures Document shall be provided for NCTA Approval at least 45 Days prior to the scheduled Factory Acceptance Test.

2.6.1.3. Factory Acceptance Test Conduct

79	Contractor shall obtain Approval from NCTA and shall have met the entry conditions prior to start of each test, including but not limited to:
	• Approved test procedures for each individual test;
	• Approved test schedule;
	• Successful dry run testing with results provided to NCTA;

	<ul style="list-style-type: none"> • Submittal of the latest Approved version of the FAT Plan test validation against the Requirements; and • Confirmation that both the site(s) and the AVI Reader are ready for testing.
80	<p>Contractor shall be responsible for all aspects of testing performed as part of the FAT and to provide all necessary resources and facilities to conduct all tests including but not limited to:</p> <ul style="list-style-type: none"> • Test support personnel; • Vehicles and drivers; • Test facilities; • Test Equipment, tools and safety devices; • Test schedule and test sequence; • Coordination with NCTA; and • Conducting the test.
81	<p>Contractor shall provide thirty (30) days advance notice of the FAT to allow NCTA to schedule their participation in the testing and witness each test.</p>
82	<p>Contractor shall provide NCTA with full access to the test data and results of the test.</p>

2.6.1.4. Factory Acceptance Test Report

83	<p>After the completion of the FAT, Contractor shall submit for NCTA’s review and Approval a test report that documents the results of the test.</p>
84	<p>The test report shall address the following, including but not limited to:</p> <ul style="list-style-type: none"> • The test summary; • The results of each test case; • Any anomalies and issues identified; • The corrective action/resolution of each item; • The test data; • Calculations and back-up data supporting compliance to Requirements; • Comments provided by NCTA and responses thereto; and • The results of any re-tests necessary to successfully complete each testing phase.
85	<p>Testing will not be considered complete by NCTA until all anomalies and punch-list items are</p>

	closed-out, and the final test report is Approved by NCTA.
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2.6.2 RTCS Factory Acceptance Test Support

86	Contractor shall provide onsite and remote technical support to the RTCS Contractor as needed in carrying out the RTCS Factory Acceptance Tests (RTCS FAT) for the Monroe Expressway, US-74 Express Lanes, and Triangle Expressway. The RTCS FAT will be conducted by the RTCS Contractor at the RTCS Contractor’s facility. There will be a separate RTCS FAT for each of the three facilities.
87	Contractor shall work with the RTCS Contractor to ensure that the RTCS FAT verifies the full functionality of the AVI Reader and its compliance with the Contract Requirements in a controlled, onsite environment.
88	Contractor shall work with the RTCS Contractor to ensure that the RTCS FAT generates sufficient transactions to prove the AVI Reader can process Transponders accurately and meet the Performance Requirements set forth in this Scope of Work and Requirements.
89	Contractor shall work with the RTCS Contractor to ensure that the RTCS FAT validates that the AVI Reader meets the Requirements of the Contract including but not limited to:
	• Transponder Capture Zone;
	• Lane Coverage;
	• Multiple Reader Synchronization;
	• Tri-Protocol Support;
	• Time Synchronization;
	• Buffered Transponder Reads;
	• Transponder Capture Rate;
	• Transponder Reporting Accuracy (including Transponder data contents);
	• Transponder Reporting Speed;
	• Transponder Write Performance; and
	• Lane Identification Accuracy.
90	In the event the RTCS FAT does not meet project schedule due to Contractor’s failure to provide the required support, NCTA will have the right to assess liquidated damages for failure to meet project progress milestones. Liquidated damages will be calculated as follows:
	• For every day beyond the start date of the RTCS FAT identified in Exhibit A, Project Schedules: \$1,000 / day.

2.6.3 Onsite Installation Testing Support

91	Contractor shall provide onsite and remote technical support to the RTCS Contractor as needed in carrying out the OIT. The OIT will be conducted by the RTCS Contractor at each Installation site.
92	Contractor shall review RTCS Installation drawings so as to ensure proper Installation, configuration and usage of Contractor’s Equipment.
93	Contractor shall work with the RTCS Contractor to ensure that the OIT verifies the full functionality of the AVI Reader and its compliance with the Contract Requirements in a controlled, onsite environment.
94	Contractor shall ensure that, before the commencement of the OIT, all Equipment and Software that are required under the Contract are in place, in a production environment and configured for revenue operations.
95	Contractor shall work with the RTCS Contractor to ensure that the OIT generates sufficient transactions to prove the AVI Reader can process Transponders accurately and meet the Performance Requirements set forth in this Scope of Work and Requirements.
96	Performance Requirements shall be verified using a sample size and test scenarios approved by NCTA.
97	<p>Contractor shall work with the RTCS Contractor to ensure that the OIT validates that the AVI Reader meets the Requirements of the Contract including but not limited to:</p> <ul style="list-style-type: none"> • Transponder Capture Zone; • Lane Coverage; • Multiple Reader Synchronization; • Tri-Protocol Support; • Time Synchronization; • Buffered Transponder Reads; • Transponder Capture Rate; • Transponder Reporting Accuracy (including Transponder data contents); • Transponder Reporting Speed; • Transponder Write Performance; and • Lane Identification Accuracy.
98	Contractor shall conduct an audit of the lanes using live traffic to verify that the RTCS is processing vehicles and Transponders accurately.

99	In the event the OIT does not meet project schedule due to Contractor’s failure to provide the required support then NCTA will have the right to assess liquidated damages for failure to meet project progress milestones. Liquidated damages will be calculated as follows:
	<ul style="list-style-type: none"> For every day beyond the start date of the OIT identified in Exhibit A, Project Schedule: \$1,000 / day.

2.6.4 Installation and Commissioning Test Support

100	Contractor shall provide onsite and remote technical support to the RTCS Contractor as needed in carrying out the Installation and Commissioning Test. The Installation and Commissioning Test will be conducted by the RTCS Contractor on each Tolling Zone as a part of the RTCS Contractor’s Roadway System Installation.
101	During the Installation and Commissioning Test the AVI Reader and its interface to the lane/zone controller shall be verified by Contractor to be fully operational.
102	Contractor shall ensure that, before the commencement of the Installation and Commissioning Test, all Equipment and Software that are required under the Contract are in place, in a production environment and configured for revenue operations.
103	In the event the Installation and Commissioning Test does not meet project schedule due to Contractor’s failure to provide the required support then NCTA will have the right to assess liquidated damages for failure to meet project progress milestones. Liquidated damages will be calculated as follows:
	<ul style="list-style-type: none"> For every day beyond the start date of the Installation and Commissioning Test identified in Exhibit A, Project Schedule: \$1,000 / day.

2.7 Maintenance and Support

Refer to Attachment 12, Monroe/US-74 Proposed RTCS Implementation Schedule, and Exhibit A, Project Schedules, for the time frames of the Installation activities described in this section.

2.7.1 Installation Support

104	Contractor shall review, comment and provide approval on RTCS Contractor design documents to ensure that AVI Reader and associated Equipment Requirements are met.
105	Contractor shall fully cooperate and participate with the RTCS Contractor to support configuration, set-up, tuning and all other associated activities associated with the Installation of the AVI Reader and associated Equipment.
106	Contractor shall provide approval of AVI Reader and associated Equipment installation.
107	Contractor shall perform an RF site survey to identify any sources of potential RF interference at each site where the AVI Reader is to be installed. Contractor shall document the results of the RF site survey and provide such documentation to NCTA and/or its designees.

108	Contractor shall provide onsite and remote technical support to the RTCS Contractor as needed in performing Hardware and Software Installation and configuration of the AVI Readers. Contractor shall act in a supporting capacity only and shall not perform physical Installation.
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2.7.1.1. Triangle Expressway Transition Plan

109	Contractor shall develop a Transition Plan for the replacement of the Triangle Expressway AVI Readers and associated Equipment.
110	Contractor shall coordinate with the RTCS Contractor in the development of the Transition Plan to ensure that the AVI Reader replacement has minimal impact to RTCS performance.

2.7.2 As-Built Reviews

111	Contractor shall review RTCS As-Built Drawings and coordinate with the RTCS Contractor to ensure the Installation sites conform to all AVI Reader requirements.
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2.7.3 Licensing

112	Contractor shall be responsible for developing, filing for an FCC license on behalf of the NCTA, and supporting NCTA in addressing any actions concerning RF interference or comments related to compliance with applicable federal, state and local licensing and regulations for the AVI technology.
113	Contractor shall identify all related licensing and regulations associated with their Equipment and describe how licensing will be obtained and what is necessary to meet the relevant regulations.

2.7.4 Maintenance

114	Contractor shall provide on-call remote and on-site Maintenance Support Services, new and replacement parts, and other technical support for the AVI Reader and associated Equipment throughout the Contract Term.
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2.7.4.1. Preventive Maintenance

115	Contractor shall submit a Preventive Maintenance Plan with respect to the AVI Reader and associated Equipment. The Plan shall provide a preliminary schedule or cycle based upon the particular service required to maintain each individual item of the AVI Reader and associated Equipment to the standards set forth in this Scope of Work and Requirements.
116	Included within the Preventive Maintenance Plan shall be the predictive Maintenance activities and analysis. This would include the recommended replacement of limited-life and consumable components such as Antennas, Readers, boards, drives, and other components, before they fail in Services.
117	Intervals for predictive replacement shall be based on reported Mean Time Between Failure for the components in question.
118	The Preventive Maintenance Plan shall include provisions for periodic cleaning of all AVI Reader components exposed to the elements.

119	Contractor shall update the Preventive Maintenance Plan annually and submit an updated version on or before January 1 of each year of the Contract Term.
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2.7.4.2. Corrective Maintenance

120	Contractor shall provide a detailed Maintenance and Repair Manual with respect to the AVI Reader and associated Equipment.
121	The AVI Reader and associated Equipment shall be designed to ensure the ability to swap out failed or suspect parts with new parts.
122	Contractor shall provide remote technical support to the RTCS Contractor as needed in the diagnosis and resolution of issues associated with Equipment supplied by Contractor.
123	Remote support shall include domestic U.S. based staffed telephone support either live or beeper and include email capability. The Contractor shall adequately staff any hotlines to handle all calls from NCTA or the RTCS Contractor.
124	Contractor shall provide Remote Support via phone on a 24/7 basis. All NCTA and RCTS Contractor requests for remote support shall be answered within fifteen (15) minutes and responded to with a remedy or proposed action plan within a 24-hour period of the inquiry.
125	If an Equipment failure or problem cannot be resolved with remote Maintenance Support, Contractor shall dispatch Maintenance personnel to provide onsite assistance to the RTCS Contractor.
126	Onsite Response Times shall be determined by Priority as described in Section III, Scope of Work and Requirements , Section 2.7.4.3.2-2.7.4.3.3 .
127	In the event that a support request is not answered within required time period (15 minutes), liquidated damages may be assessed. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> For every 15-minute period beyond required response time, \$50 / period.

2.7.4.3. Maintenance Priorities and Response Times

128	Onsite Response Time is defined as the elapsed time from when failure or problem was reported to when Contractor Maintenance personnel arrived at the site of the failure or problem.
129	<p>Priority 1: Defined as any malfunction or fault that results in the immediate loss of revenue, security breach, closure of lanes outside of NCTA lane closure requirements, hazard to personnel or driving public, loss of audit data, loss of redundancy in any redundant System components, loss of functionality that impacts Interoperable Agencies, or failure that negatively impacts RTCS Operations.</p> <p>This Priority shall have a twenty-four (24) hour Onsite Response Time.</p>
130	<p>Priority 2: Defined as any malfunction or fault that degrades the RTCS performance but not the operational ability of the RTCS. It includes, but is not limited to inaccurate reporting, inability to reconcile revenue or loss of RTCS functionality that impacts access to data.</p> <p>This Priority shall have a two (2) day Onsite Response Time.</p>

131	<p>Priority 3: Defined as any action or event that has the potential to result in a malfunction or degrading of the System performance but has not impacted performance and is not anticipated to immediately impact performance.</p> <p>This Priority shall have a one (1) week Onsite Response Time.</p>
132	<p>In the event Contractor does not provide Onsite Response within the required time period, liquidated damages may be assessed. Liquidated damages shall be calculated as follows:</p> <ul style="list-style-type: none"> • For Priority 1: every day beyond required twenty-four (24) hour response time, \$500 / day; • For Priority 2: every day beyond required two (2) day response time, \$500 / day; and • For Priority 3: every day beyond required one (1) week response time, \$500 / day.

2.7.5 Spare Parts

133	<p>The Contractor shall be responsible for the maintenance of an adequate Spare Parts inventory during the Contract Period. Contractor shall be responsible for identifying the existing Spare Parts inventory, ordering Spare Parts as required, and proposing the quantities of Spare Parts needed to maintain the Performance Requirements set forth in this Scope of Work and Requirements.</p>
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2.7.5.1. Spare Parts Inventory

134	<p>Contractor shall develop and submit the initial Spare Parts inventory list to NCTA for review and Approval.</p>
135	<p>The Spare Parts inventory list shall identify all parts, Equipment, and components used in Contractor’s solution and the recommended quantities of each.</p>
136	<p>The Spare Parts inventory list shall include Guaranteed Delivery Lead Time for each part.</p>
137	<p>The Spare Parts inventory list shall include Part Description, Model Number (if any), Vendor and Original Equipment Manufacturer (where applicable), part number, and part price.</p>
138	<p>The Contractor shall, on an annual basis, update and resubmit the Spare Parts inventory list to NCTA for review and Approval.</p>

2.7.5.2. Procurement and Control of Spare Parts

139	<p>Contractor shall deliver Spare Parts to the RTCS Contractor. The RTCS Contractor will maintain physical control of the Spare Parts.</p>
140	<p>Contractor shall coordinate with the RTCS Contractor as to the location and times that parts will be delivered and the storage space required to warehouse the spare parts inventory.</p>
141	<p>Thirty (30) days prior to the Installation and Commissioning Test, the Contractor shall have delivered to the RTCS Contractor the agreed upon inventory of spare parts.</p>
142	<p>The spare parts shall be owned by NCTA in a manner to ensure that NCTA receives the maximum benefit from any warranties associated with the spare parts.</p>

2.7.5.3. Spare Parts Availability

143	Contractor shall <u>continue to supply the RTCS Contractor with sufficient spares quantities to maintain the required physical inventory levels of agreed-upon spare parts.</u>
144	Contractor’s failure to purchase or replenish the spare parts or consumables to levels necessary to meet the Performance Requirements is not an excusable failure and will not relieve the Contractor from Performance Requirements or any associated liquidated or actual damages resulting from the non-performance.
145	For failure to maintain spare parts inventory at agreed upon levels for the month, Contractor may be subject to liquidated damages. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> For each month in which Contractor failed to maintain spare parts inventory per the counts required, \$1000 per month.

2.7.5.4. Repair Depot

146	Contractor shall be responsible for providing and staffing a repair depot for the return and repair of AVI Reader components.
147	Contractor shall be responsible for repairing <u>or replacing</u> failed AVI Reader components and returning them to the spare parts inventory.
148	Contractor shall indicate the details of the repairs performed on any components. This shall include but not be limited to boards and connectors replaced.
149	If the replaced part is under warranty, the part shall be immediately replaced with a new part by Contractor. If the replaced part is out of warranty, Contractor shall make every effort to repair the replaced item to a usable status and place the part back into spares inventory. Except for Pervasive Defects, for out of warranty components, Contractor shall document why the component could not be repaired and advise NCTA that a new spare must be ordered. (CONTENTS DELETED)

2.7.6 Software Upgrades and Updates

150	For the Contract Term, and at no additional cost to NCTA, Contractor shall provide the following Software Maintenance Services as it pertains to the AVI Reader:
	<ul style="list-style-type: none"> Entitlement to all generally available AVI Reader Software or firmware updates, including patches, Maintenance releases, new releases of the Software or firmware and any subsequent product offerings issued as successors to the AVI Reader Software or firmware;
	<ul style="list-style-type: none"> Configuration Management of AVI Reader Software or firmware. Actual Installation of firmware will be carried out by RTCS Contractor;
	<ul style="list-style-type: none"> Release notes to NCTA and the RCTS Contractor for any Software or firmware changes or upgrades; and
<ul style="list-style-type: none"> AVI Reader Software or firmware configuration adjustments in order to fine tune the solution to better meet the Performance Requirements. 	

2.8 Training

2.8.1 Training Program

151	Contractor shall establish a training program for the AVI Reader. The training shall provide an overview of design, operations, and Maintenance of the AVI Reader. NCTA will provide a listing of designated personnel to whom Contractor will provide training.
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2.8.2 Training Courses

152	The courses shall include instruction in proper Maintenance, monitoring and diagnostics of the Equipment and Software either supplied with or incorporated into the AVI Reader. The total package of courses shall be organized into the following sessions unless otherwise modified at the request of the RTCS Contractor and approved by NCTA:
	<ul style="list-style-type: none"> • AVI Reader operation, configuration, interfaces and monitoring; and
153	<ul style="list-style-type: none"> • AVI Reader Preventive and Corrective Maintenance. <p>One (1) training session of each type shall be held in Raleigh, NC, and shall be given in person by the Contractor. All training materials and aids shall be provided by the Contractor. NCTA will provide the location for the training sessions.</p>

2.9 Documentation

2.9.1 Interface Control Documents (ICD)

154	Contractor shall provide an ICD that documents all the required interfaces and functionality of messages. This includes the interface between the AVI Reader/Antenna and the Transponder, as well as between the AVI Reader and the RTCS. The ICD shall provide a message-level interface (including protocols used) as well as a brief concept of operations or examples describing how the messages are used.
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2.9.2 Operating Documentation

155	Contractor shall provide Cut Sheets, Drawings, Operating Instructions, Installation Instructions, and Maintenance Instructions as applicable for all provided Equipment and components.
156	Contractor shall provide Documentation that describes in detail any and all recommended training functions, test Equipment, Certifications, licenses and other support functions that Contractor considers necessary to ensure proper Installation, tuning and Maintenance of the AVI Reader.
157	Contractor shall provide Documentation describing all recommended calibration and tuning levels necessary to meet the Performance Requirements set forth in this Scope of Work and Requirements.
158	Contractor shall make updates to the Documentation whenever necessary due to Equipment or Software changes that affect any Maintenance or Installation procedures.

2.10 Project Management Plan

159	Contractor shall develop a Project Management Plan describing how Contractor plans to implement and manage the Project, including staffing, scheduling and communication procedures for controlling all correspondence, Submittals, and other communications between the Contractor and NCTA, and communications with third-party entities.
160	<p>The Project Management Plan shall at a minimum include the following elements:</p> <ul style="list-style-type: none"> • Project scope and key Deliverables; • A description of the management and organization of the Project, an organization chart, identification of Key Team Personnel and their responsibilities, percentage commitment to the Project, task leads for each functional area and location and identification of the resources to be used in fulfilling the Requirements of the Contract; • Project team (Contractor, NCTA, NCTA Representatives, NCDOT, and the RTCS Contractor) contact information; • A description of the Project planning, Documentation and reporting methods to be utilized, both for use within Contractor’s staff and externally to NCTA and other entities; • A description of the process for communication, escalation and resolution of Project issues with NCTA; • Meeting schedules with NCTA and other entities including the form of the meeting; • Inclusion of the Approved Project schedule; • A description of the process for reporting, updating and tracking the Project schedule and Project performance; • Approach to change management, consistent with Contract Requirements, including a description of the process for documenting and submitting change requests, the Approval process and how the change management approach will be integrated into day-to-day Project management; • Approach to document control, including Software (NCTA shall have the capability to download documents using this Software) and tools NCTA will use and have read-only access to via the Web; • Approach to risk management; • Approach to Quality Assurance and Quality Control; • Documenting the invoice submission; invoice backup information; verification, and Approval process; • A section with all Approved Project forms including but not limited to, meeting agenda; meeting notes; action items tracking log; monthly progress report, and invoices; and • An emergency contact list.

161	Contractor shall identify the tools and products used to manage the Project including Software development lifecycle and the internal controls instituted by the Contractor to guarantee successful delivery of the Project.
162	Contractor shall develop and submit the Project Management Plan to NCTA for review and Approval.
163	Contractor shall develop and submit the communication procedures to NCTA for review and Approval that address the following, including but not limited to: <ul style="list-style-type: none"> • Correspondence: Correspondence shall be identified as to originator and designated receiver and include the form of transmission; • Document control: Tracking of document versions and changes including naming conventions; • Invoices: All invoices shall be submitted with accompanying backup information as required by the Contract and consistent with NCTA processes and invoicing and auditing policies. Contractor shall work with NCTA to develop the appropriate invoice and back-up materials as a part of the Project Management Plan development; • Submittals: All Submittals shall be delivered as an enclosure to Contractor's Submittal letter. Each Submittal letter shall be limited to a single subject or item. Contractor's letter shall identify the Contract number, Contract name and subject of the Submittal; • Contract number and Contract name: All items of correspondence, invoices, Submittals and Documentation shall contain the Contract number and the designated Contract name; and • Comments Log: Process for validating that all comments provided by NCTA on Contractor Deliverables are successfully addressed.

3. Category B: Provide TDM Transponders, Accessories and Services

3.1 Transponder Types

164	Contractor shall provide an Interior Hard Case Transponder supporting the TDM protocol in the quantities as may be requested by NCTA throughout the Contract Term.
165	Contractor shall provide an Interior High-Occupancy Vehicle (HOV) Self Declaration Transponder supporting the TDM protocol in the quantities as may be requested by NCTA throughout the Contract Term.
166	Contractor shall provide an Exterior Hard Case Transponder supporting the TDM protocol in the quantities as may be requested by NCTA throughout the Contract Term.

3.1.1 Interior Transponder

167	The Interior Transponder shall be a programmable, windshield mounted RFID Transponder that is packaged in a monolithic plastic case.
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168	The Interior Transponder shall be able to be detached from vehicle windshield and reattached back to the vehicle windshield without the use of any tools.
169	All components used in the Interior Transponder shall be approved for safe use in consumer products. The Interior Transponder shall not give off dangerous substances at any time including when damaged.
170	Contractor shall provide the appropriate adhesive material and/or devices to allow the Interior Transponder to be affixed to the windshield of the vehicle in accordance with manufacturer’s mounting instructions.
171	The attachment method shall allow removal without risk of damage to the Interior Transponder or vehicle. Any strips, tabs, cups or other mounting device used to meet these Requirements shall be completely removable without damaging or marring the vehicle in any way.
172	The Interior Transponder shall not require any additional external power supply in order to meet the Performance Requirements described in this Scope of Work and Requirements.
173	Interior Transponders shall be held stationary in their location by means sufficient to provide reliable attachment. The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
174	The Interior Transponder shall be marked in such a manner as to render unlikely incorrect orientation of the Interior Transponder upon Installation or reinstallation.

3.1.2 Interior High-Occupancy Vehicle (HOV) Self Declaration Transponder

175	The HOV Self Declaration Transponder shall be a programmable, windshield mounted RFID Transponder that is packaged in a monolithic plastic case.
176	The HOV Self Declaration Transponder shall include a switch that when toggled causes the Transponder to switch from one status to another.
177	The HOV Self Declaration Transponder shall support two statuses: single occupancy vehicle (SOV) and high occupancy vehicle (HOV).
178	The HOV Self Declaration Transponder shall emit a tone when its status is set to HOV.
179	The HOV Self Declaration Transponder shall meet all Requirements for Interior Transponders as set forth in this Scope of Work and Requirements.

3.1.3 Exterior Transponder

180	The Exterior Transponder shall be a programmable RFID Transponder that is packaged in a monolithic plastic case.
181	The Exterior Transponder shall be for Installation on surfaces outside of the passenger compartment of motor vehicles.
182	The Exterior Transponder shall withstand ice, snow, steam, dirt, mud, and any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.

183	The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
184	The attachment methods shall allow for removal without risk of damage to the Exterior Transponder or vehicle.
185	The Exterior Transponder shall be marked in such a manner as to render unlikely incorrect orientation of the Exterior Transponder upon Installation or reinstallation.
186	Contractor shall supply the required mounting material or hardware with all supplied Exterior Transponders.

3.2 Functional Requirements

187	Transponders shall be fully compatible with E-ZPass AVI systems.
188	Transponder data format shall conform to the E-ZPass Group Transponder data format.
189	Transponders shall implement full Read/Write functionality.
190	The HOV Self Declaration Transponder shall implement HOV status declaration compatible with existing E-ZPass HOV Self Declaration Transponders.

3.3 Form Factor

3.3.1 Dimensions

191	Interior Transponders shall be as small as possible and fit behind the rear view mirror.
192	When properly mounted, Interior Transponders shall not obstruct the driver’s field of vision.
193	When properly mounted, Exterior Transponders shall not obscure the license plate numbering (numbers and letters) or issuing jurisdiction information.

3.3.2 Transponder Bar Codes

194	Transponders shall be bar coded to match the Transponder number physically encoded on the Transponder unit to support inventory control and automated input to the BOS customer account management system.
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3.3.3 Transponder Labeling

195	Interior Transponders shall be branded "NC Quick Pass" or any other branding that NCTA may require in the future, and shall not carry any visible manufacturer or vendor brand names. NCTA will provide all required and appropriate "NC Quick Pass" logo artwork.
196	In addition to any other branding required by NCTA, the Interior Transponders shall bear the "E-ZPass" logo. The "E-ZPass" logo may be embossed in the transponder case or printed on the label. If printed, the "E-ZPass" logo shall be colored in Pantone 259 Purple.

197	NCTA will Approve final graphic design of all Transponders procured pursuant to this Contract.
198	Contractor shall provide specifications and restrictions for pigments and labels to be used on Transponders to ensure that pigments or labels will not interfere with Transponder operation.

3.4 Physical / Environmental

3.4.1 Operating Environment

199	<p>Transponders shall be designed to operate without Performance degradation under worst case traffic conditions including the following:</p> <ul style="list-style-type: none"> • Vehicles traveling up to +30 <u>100</u> miles per hour; • Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour; • Vehicles tailgating; • Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans; • Vehicles arriving simultaneously at the Transponder Capture Zone; and • Vehicles changing and/or straddling lanes.
200	<p>Transponders shall be designed to operate without performance degradation under worst case environmental conditions that may be encountered in North America including but not limited to:</p> <ul style="list-style-type: none"> • Operating Temperatures ranging from -40° F to +185° F; • Storage Temperatures ranging from -40° F to +185° F; • Rain: 1/4 inch of rain per minute; • Fog: 10 feet visibility; • Relative Humidity: 0% - 100%; • Ice: 1/4-inch thickness between the Transponder and the Antenna; • All forms of driving precipitation (sleet, hail, blizzard, etc.); and • Direct sunlight.

3.4.2 Electromagnetic Interference

201	<p>Transponders shall be resistant to electromagnetic interference or noise, electrical interference, and mechanical interference that may typically be found in an ORT environment from sources such as, but not limited to:</p>
	<ul style="list-style-type: none"> • Wireless data and voice Services;
	<ul style="list-style-type: none"> • Satellite radio signals;
	<ul style="list-style-type: none"> • GPS devices;
	<ul style="list-style-type: none"> • Vehicle electronics;
	<ul style="list-style-type: none"> • Ignition systems;
	<ul style="list-style-type: none"> • Electrical appliances;
	<ul style="list-style-type: none"> • Lightning (except for direct hits);
	<ul style="list-style-type: none"> • Power tools;
	<ul style="list-style-type: none"> • Power lines;
	<ul style="list-style-type: none"> • Power transformers;
	<ul style="list-style-type: none"> • Mobile and portable communications radios;
	<ul style="list-style-type: none"> • Video Enforcement and Automatic Vehicle Classification Equipment, including inductive loops and lasers;
	<ul style="list-style-type: none"> • Security systems;
	<ul style="list-style-type: none"> • Lighting;
	<ul style="list-style-type: none"> • Speed radar sources and detectors;
	<ul style="list-style-type: none"> • Air conditioning units;
	<ul style="list-style-type: none"> • Windshield wipers;
	<ul style="list-style-type: none"> • Detuned engines;
	<ul style="list-style-type: none"> • Defrosters; and
	<ul style="list-style-type: none"> • Anything else that would reasonably be found in an ORT environment.

3.5 Performance Requirements

3.5.1 Read/Write Performance

202	Vehicles properly equipped with Transponders passing through the Toll Zone shall be detected and read completely at least 99.9% of the time, or no more than one (1) missed read or incorrect detect in one thousand (1,000) equipped vehicle passages.
203	Vehicles properly equipped with Transponders, passing through a Toll Zone configured to write to TDM Transponders, shall be successfully and accurately written to with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) equipped vehicle passages.

3.5.2 Transponder Lifetime

204	For each supplied Transponder model, life expectancy shall not be less than eight (8) years from the date of first use or after 12 months in storage, whichever occurs earlier.
205	The HOV Self Declaration Transponder shall be warranted for a minimum of 5,200 switch transitions.

3.5.3 Battery Performance

206	Battery life shall be a minimum of eight (8) years from the date of first use or after 12 months in storage, whichever occurs earlier.
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3.6 Equipment Certification

207	Transponders shall be compliant with International Bridge, Tunnel and Turnpike Association (IBTTA) North American Toll Interoperability Program Electronic Toll Collection Protocol Requirements (see Attachment 3, IBTTA NIOP Requirements Document).
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3.6.1 E-ZPass Group Equipment Certification

The TDM Transponders must be tested and approved for use by a National Affiliate of the E-ZPass Group. NCTA will facilitate discussions with the E-ZPass Group as necessary to achieve such approval. The Contractor is responsible for conducting the necessary testing and providing the necessary documentation to facilitate NCTA’s efforts in this regard. NCTA will provide any Readers required to support this testing.

208	Transponders shall be formally approved in writing by the E-ZPass Group for use by a National Affiliate before being placed into service.
209	If any of the proposed Transponders have not previously been approved for use by a National Affiliate of the E-ZPass Group, Contractor shall complete to NCTA’s satisfaction the interoperable technology testing required within 90 Days of Contract award. Requirements for such testing are specified in Attachments 6, 7, 8, 9 and 10 and Contractor shall provide NCTA with all necessary testing documentation.

3.7 Inventory / Distribution

210	Transponders shall comply with any and all current U.S. and international safety standards to permit unrestricted shipment by mail and commercial carriers with appropriate documentation and in the recommended packaging.
211	Contractor shall ship Transponders in boxes with dividers and placeholders.
212	Each box of Transponders shall contain Transponders with consecutive serial numbers starting at a numerical sequence determined jointly by NCTA and Contractor.
213	Each box of Transponders shall have a barcode marked packing slip and exterior identification with the beginning and ending serial numbers for inventory tracking.
214	Contractor shall provide a spreadsheet of boxes and serial number ranges along with each shipment of Transponders.
215	Contractor shall coordinate with the CSC Contractor to develop the exact content and format of the spreadsheet.
216	Each Transponder shall be provided with a metallic bag (Read Prevention Bag) that will not allow the Transponder to be read while the Transponder is in the bag.
217	In addition to the initial shipment of Read Prevention Bags, Contractor shall provide additional Read Prevention Bags in the quantities as may be requested by NCTA throughout the Contract Term.
218	In addition to the initial shipment of Transponder mounting strips, tabs, cups or other mounting device, Contractor shall provide additional Transponder mounting strips, tabs, cups or other mounting device in the quantities as may be requested by NCTA throughout the Contract Term.
219	NCTA has an ongoing requirement for the items indicated in this Scope of Work and Requirements. It is an express condition of any award that the successful Contractor shall maintain a reasonable stock on hand for delivery. NCTA will work with the successful Contractor by providing a 45 Day notice for required orders.
220	Contractor is required to deliver Transponder orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be assessed. Liquidated damages shall be calculated as follows: <ul style="list-style-type: none"> • For every week, or part thereof, beyond the indicated Guaranteed Delivery Lead Time, 5% of the total order dollar value per week (or part thereof).

3.8 Disposal

221	If there are environmental restrictions on disposal of any type of supplied Transponder, Contractor shall document the proper disposal procedures and the reason for the restrictions.
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3.9 Handheld Reader

222	Contractor shall provide a Handheld Reader that will be compatible with the provided Transponders.
223	The Handheld Reader shall be of ergonomic design and powered by a rechargeable battery.
224	The Handheld Reader shall be able to be carried, moved and operated by one person.
225	The Handheld Reader shall be able to read all compatible Transponders.
226	The Handheld Reader shall be equipped with a display which displays data for each Transponder read, including but not limited to:
	<ul style="list-style-type: none"> • Transponder ID;
	<ul style="list-style-type: none"> • Transponder encoded vehicle class;
	<ul style="list-style-type: none"> • Previous Toll Zone as written to the Transponder; and • Position of HOV self-declaration switch at previous Toll Zone (if applicable).
227	The Handheld Reader shall support an external interface allowing it to exchange all Transponder data with a desktop or laptop workstation (supplied by others).
228	Contractor shall provide any Software for Installation on desktop or laptop workstations required to support interfacing with the Handheld Reader.
229	For the Contract Term, and at no additional cost to NCTA, Contractor shall provide the following Software Maintenance Services as it pertains to the Handheld Reader:
	<ul style="list-style-type: none"> • Updates to the Handheld Reader firmware;
	<ul style="list-style-type: none"> • Updates to Software for use on connected workstation;
	<ul style="list-style-type: none"> • Release Notes for firmware and Software; and • Documentation Updates.
230	Contractor shall provide training to NCTA or its designated representatives in the use and Maintenance of the Handheld Reader.
231	The microwave energy radiated from the Handheld Reader shall be well below the limits set by health and telecommunication authorities of United States, and these units shall be allowed for continuous use in an operational environment.
232	Contractor is required to deliver Handheld Reader orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be assessed. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For every day beyond the indicated Guaranteed Delivery Lead Time, \$500 / day.

3.10 Transponder Programmer

233	Contractor shall provide a Transponder Programmer that will be compatible with the Transponders.
234	The Transponder Programmer shall allow programming of all agency read-only data fields in the Transponders.
235	Contractor shall provide any Software for Installation on desktop or laptop workstations required to support interfacing with the Transponder Programmer.
236	For the Contract Term, and at no additional cost to NCTA, Contractor shall provide the following Software Maintenance Services as it pertains to the Transponder Programmer:
	<ul style="list-style-type: none"> • Updates to the Transponder Programmer firmware;
	<ul style="list-style-type: none"> • Updates to Software for use on connected workstation;
	<ul style="list-style-type: none"> • Release Notes for firmware and Software; and
	<ul style="list-style-type: none"> • Documentation Updates.
237	Contractor shall provide training to NCTA or its designated representatives in the use and Maintenance of the Transponder Programmer.
238	Contractor is required to deliver Transponder Programmer orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be assessed. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For every day beyond the indicated Guaranteed Delivery Lead Time, \$500 / day.

3.11 Maintenance

239	Contractor shall provide on-call remote and on-site Maintenance Support Services and other technical support for the Handheld Reader and Transponder Programmer throughout the Contract Term.
240	Contractor shall repair or replace failed Handheld Readers and Transponder Programmers throughout the Contract Term within fourteen (14) days of Equipment failure.
241	For failure to repair or replace failed Equipment, Contractor may be subject to liquidated damages. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For each day beyond fourteen (14) days in which Contractor failed to repair or replace failed Equipment, \$500 per day.

3.11.1 Maintenance Support

242	Contractor shall provide remote technical support to the NCTA, the CSC Contractor, or the RTCS Contractor as needed in the diagnosis and resolution of issues associated with the Handheld Reader and Transponder Programmer.
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243	Remote support shall include domestic U.S. based staffed telephone support either live or beeper and include email capability. The Contractor shall adequately staff any hotlines to handle all calls from NCTA, the CSC Contractor, or the RTCS Contractor.
244	Contractor shall provide Remote Support via phone on a 24/7 basis. All NCTA, CSC Contractor, and RCTS Contractor requests for remote support shall be answered within fifteen (15) minutes and responded to with a remedy or proposed action plan within a 24-hour period of the inquiry.
245	If a failure or problem with the Handheld Reader or Transponder Programmer cannot be resolved with remote Maintenance Support, Contractor shall dispatch Maintenance personnel to provide onsite assistance to the RTCS Contractor or CSC Contractor.
246	Onsite Response Times shall be determined by Priority as described in Section III, Scope of Work and Requirements , Section 3.11.2.
247	In the event that a support request is not answered within required time period (15 minutes), liquidated damages may be assessed. Liquidated damages shall be calculated as follows: <ul style="list-style-type: none"> • For every 15-minute period beyond required response time, \$50 / period.

3.11.2 Maintenance Priorities and Response Times

248	Onsite Response Time is defined as the elapsed time from when failure or problem was reported to when Contractor Maintenance personnel arrived at the site of the failure or problem.
249	Priority 1: Defined as any malfunction or fault that has the potential to impact revenue or customer service, such as complete failure of a Handheld Reader used for HOV lane enforcement or to test customer Transponders at a service center. This Priority shall have a two (2) day Onsite Response Time.
250	Priority 2: Defined as any malfunction or fault that has not impacted revenue or customer service and is not anticipated to immediately impact revenue or customer service, such as the failure of a Handheld Reader or Transponder Programmer used in a bench test or laboratory setting. This Priority shall have a one (1) week Onsite Response Time.
251	In the event Contractor does not provide Onsite Response within the required time period, liquidated damages may be assessed. Liquidated damages shall be calculated as follows: <ul style="list-style-type: none"> • For Priority 1: every day beyond required two (2) day response time, \$500 / day; and • For Priority 2: every day beyond required one (1) week response time, \$500 / day.

3.12 Testing

252	For each Transponder order placed, a sample (either partial or full) of Transponders may be lab tested (at NCTA’s expense) from each batch delivered to ensure that they remain operationally consistent with previously delivered Transponders and to ensure the Transponder programming is correct. Any batches failing testing shall be replaced at Contractor’s expense at NCTA’s sole discretion. A batch is considered as failed if there are more than one (1) Transponder error per two hundred (200) tested (0.5%). NCTA will make available any supporting testing documentation.
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3.13 Documentation

3.13.1 End-User Instructions

253	Contractor shall provide instructions suitable for use by end users which document the means of attachment and mounting devices used by all supplied Transponder models.
254	Contractor shall provide a list of vehicle features, such as metallic coated windshields or rearview mirrors with displays, that may interfere with Interior Transponders.
255	Contractor shall provide a list of vehicle makes and models equipped with features which may interfere with Interior Transponders. Where applicable, Contractor shall indicate alternate mounting locations or other special instructions which would prevent the interference in particular vehicle types.
256	Contractor shall update the lists of vehicle features that may interfere with Interior Transponders, and the vehicle makes and models equipped with such features, on an annual basis.

3.13.2 Equipment Documentation

257	Contractor shall provide instructions and Documentation regarding the storage, transport, issue, and disposal of all Transponder models as applicable.
258	Contractor shall provide Cut Sheets, Operating Instructions, Installation Instructions, and Maintenance Instructions as applicable for the Handheld Reader and Transponder Programmer.

3.13.3 Regulatory Compliance

259	Contractor shall provide documentation stating that all provided Equipment and Transponder models are in compliance with appropriate regulations and standards.
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3.14 Project Management Plan

260	Contractor shall develop a Project Management Plan describing how Contractor plans to implement and manage the Project, including staffing, scheduling and communication procedures for controlling all correspondence, Submittals, and other communications between the Contractor and NCTA, and communications with third-party entities.
261	The Project Management Plan shall at a minimum include the following elements: <ul style="list-style-type: none"> • Project scope and key Deliverables; • A description of the management and organization of the program, an organization chart, identification of Key Team Personnel and their responsibilities, percentage commitment to the Project, task leads for each functional area and location and identification of the resources to be used in fulfilling the Requirements of the Contract; • Project team (Contractor, NCTA, NCTA Representatives, NCDOT, and the BOS Contractor) contact information;

	<ul style="list-style-type: none"> • A description of the Project planning, Documentation and reporting methods to be utilized, both for use within Contractor’s staff and externally to NCTA and other entities;
	<ul style="list-style-type: none"> • A description of the process for communication, escalation and resolution of Project issues with NCTA;
	<ul style="list-style-type: none"> • Meeting schedules with NCTA and other entities including the form of the meeting;
	<ul style="list-style-type: none"> • Inclusion of the Approved Project schedule;
	<ul style="list-style-type: none"> • A description of the process for reporting, updating and tracking the Project schedule and Project performance;
	<ul style="list-style-type: none"> • Approach to change management, consistent with Contract Requirements, including a description of the process for documenting and submitting change requests, the Approval process and how the change management approach will be integrated into day-to-day Project management;
	<ul style="list-style-type: none"> • Approach to document control, including Software (NCTA shall have the capability to download documents using this Software) and tools NCTA will use and have read-only access to via the Web;
	<ul style="list-style-type: none"> • Approach to risk management;
	<ul style="list-style-type: none"> • Approach to Quality Assurance and Quality Control;
	<ul style="list-style-type: none"> • Documenting the invoice submission; invoice backup information; verification, and Approval process;
	<ul style="list-style-type: none"> • A section with all Approved Project forms including but not limited to, meeting agenda; meeting notes; action items tracking log; monthly progress report, and invoices; and
	<ul style="list-style-type: none"> • An emergency contact list.
262	Contractor shall identify the tools and products used to manage the Project including Software development lifecycle and the internal controls instituted by the Contractor to guarantee successful delivery of the Project.
263	Contractor shall develop and submit the Project Management Plan to NCTA for review and Approval.
264	<p>Contractor shall develop and submit the communication procedures to NCTA for review and Approval that address the following, including but not limited to:</p> <ul style="list-style-type: none"> • Correspondence: Correspondence shall be identified as to originator and designated receiver and include the form of transmission; • Document control: Tracking of document versions and changes including naming conventions;

	<ul style="list-style-type: none"> • Invoices: All invoices shall be submitted with accompanying backup information as required by the Contract and consistent with NCTA processes and invoicing and auditing policies. Contractor shall work with NCTA to develop the appropriate invoice and back-up materials as a part of the Project Management Plan development;
	<ul style="list-style-type: none"> • Submittals: All Submittals shall be delivered as an enclosure to Contractor's Submittal letter. Each Submittal letter shall be limited to a single subject or item. Contractor's letter shall identify the Contract number, Contract name and subject of the Submittal;
	<ul style="list-style-type: none"> • Contract number and Contract name: All items of correspondence, invoices, Submittals and Documentation shall contain the Contract number and the designated Contract name; and
	<ul style="list-style-type: none"> • Comments Log: Process for validating that all comments provided by NCTA on Contractor Deliverables are successfully addressed.

4. Category C: Provide Local Transponders, Accessories and Services

4.1 Transponder Types

265	Contractor shall provide at least one type of Interior Sticker Transponder in the quantities as may be requested by NCTA throughout the Contract Term.
266	It is desired, but not required, that Contractor provide at least one type of Exterior Sticker Transponder in the quantities as may requested by NCTA throughout the Contract Term.
267	It is desired, but not required, that Contractor provide at least one type of Exterior Hard Case Transponder in the quantities as may requested by NCTA throughout the Contract Term.
268	Interior and Exterior Local Transponders shall be compliant with either the SeGo or ISO 18000-63 (6C) standard.
269	All of the Interior and Exterior Local Transponders shall be compliant with the same standard, either SeGo or 6C.

4.1.1 Interior Transponder

270	Interior Transponders shall be programmable, Sticker Transponders that are powered by radio frequency energy and shall not require a battery.
271	The Interior Transponder shall be packaged as a flexible self-adhesive sticker.
272	The Interior Transponder shall be designed such that once it is mounted to the windshield, any attempt to remove the Interior Transponder from its mounting location will result in it becoming permanently unusable.
273	The Interior Transponder shall be designed in such a manner that attachment and removal will not cause damage to the surface to which it is attached.
274	The Interior Transponder shall be marked in a manner that incorrectly orienting the Transponder upon Installation is unlikely.

4.1.2 Exterior Transponder

275	Exterior Transponders shall be programmable, Sticker or Hard Case Transponders that are powered by radio wave and shall not require a battery.
276	The Exterior Transponders shall be for Installation on surfaces outside of the passenger compartment of motor vehicles.
277	Exterior Transponders shall withstand ice, snow, steam, dirt, mud, any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.
278	The Exterior Transponder shall be designed for operation from -40° F to +150° F and in all weather conditions.

279	If the Exterior Transponder is a Sticker type, it shall be designed such that once it is attached to the vehicle, any attempt to remove the Transponder from its mounting location will result in it becoming permanently unusable.
280	If the Exterior Transponder is a Hard Case type, the Exterior Transponder and its attachment methods shall allow removal without risk of damage to the Exterior Transponder.
281	The Exterior Transponder shall be designed in such a manner that attachment and removal will not cause damage to the surface to which it is attached.
282	The Exterior Transponder shall be marked in such a manner as to render unlikely incorrect orientation of the Exterior Transponder upon Installation or reinstallation.

4.2 Functional Requirements

283	All Transponder types shall meet power level and activation Requirements to support RTCS Transponder Capture Zone Requirements set forth in Section III, Scope of Work and Requirements , Section 2.3.1, Transponder Capture Zone.
284	<p>If supplied, SeGo Transponders shall meet the following Requirements:</p> <ul style="list-style-type: none"> • Transponders shall conform to the current NCTA SeGo Transponder data format; • Transponders shall be required to be consistent with the observed operational performance of the current NCTA SeGo Transponders both during product qualification, as well as the Contract Term; • Transponders shall be required to be consistent with following measured characteristics of the current NCTA SeGo Transponders both during product qualification, as well as the Contract Term: <ul style="list-style-type: none"> ○ Minimum activation energy; ○ Return signal strength; and ○ Polarization; • Transponders shall be compliant with International Bridge, Tunnel and Turnpike Association (IBTTA) North American Toll Interoperability Program Electronic Toll Collection Protocol Requirements (see Attachment 3, IBTTA NIOP Requirements Document); and • The Transponders shall be serialized to fit in with, and not conflict with, the Transponder serial number ranges already procured by NCTA. Specific details shall be requested by Contractor after award, prior to manufacturing.
285	<p>If supplied, 6C Transponders shall meet the following Requirements:</p> <p>Transponders shall be compliant with most recent ISO/EIC 18000-63 standard used by OCS for 6C Interoperability, currently ISO/IEC 18000-63:2013. Transponders shall maintain compliance with future versions of ISO/IEC 18000-63 if and when such future standards are required by OCS;</p>

	<ul style="list-style-type: none"> Transponders shall be compliant with most recent 6C Toll Operators Coalition (6C TOC) AVI Transponder Programming Standard at the time of Contract Award (see Attachment 2, 6C TOC AVI Transponder Programming Standard for the current version);
	<ul style="list-style-type: none"> At NCTA’s discretion and at no additional cost to NCTA, Contractor shall provide Transponders that are compliant with newer versions of the 6C TOC AVI Transponder Programming Standard over the life of the Contract; and
	<ul style="list-style-type: none"> Transponders shall be compliant with International Bridge, Tunnel and Turnpike Association (IBTTA) North American Toll Interoperability Program Electronic Toll Collection Protocol Requirements (see Attachment 3, IBTTA NIOP Requirements Document).

4.3 Form Factor

4.3.1 Dimensions

286	NCTA currently distributes windshield Sticker Transponders via a retail product called “NC Quick Pass”. The current size of this Transponder is 2.89” W X 2.19” H. <u>NCTA uses standard 6” x 9” mailing envelopes for distribution and fulfillment.</u> The Interior Sticker Transponder shall <u>fit within the current mailing envelope</u> not exceed these dimensions.
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4.3.2 Transponder Bar Codes

287	Transponders shall be bar coded to match the Transponder number physically encoded on the Transponder unit to support inventory control and automated input to the back office customer accounting system.
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4.3.3 Transponder Labeling

288	Interior Transponders shall be branded "NC Quick Pass" or any other branding that NCTA may require in the future, and shall not carry any visible manufacturer or vendor brand names. NCTA will provide all required and appropriate "NC Quick Pass" logos and artwork.
289	NCTA will Approve final graphic design of all Transponders procured pursuant to this Contract.
290	Contractor shall provide specifications and restrictions for pigments and labels to be used on Transponders to ensure that pigments or labels will not interfere with Transponder operation.

4.4 Physical / Environmental

4.4.1 Operating Environment

291	Transponders shall be designed to operate without Performance degradation under worst case traffic conditions including the following:
	<ul style="list-style-type: none"> Vehicles traveling up to +30<u>-100</u> miles per hour;

	<ul style="list-style-type: none"> • Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;
	<ul style="list-style-type: none"> • Vehicles tailgating;
	<ul style="list-style-type: none"> • Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	<ul style="list-style-type: none"> • Vehicles arriving simultaneously at the Transponder Capture Zone; and
	<ul style="list-style-type: none"> • Vehicles changing and/or straddling lanes.
292	<p>Transponders shall be designed to operate without performance degradation under worst case environmental conditions that may be encountered in North America including but not limited to:</p> <ul style="list-style-type: none"> • Operating Temperatures ranging from -40° F to +185° F; • Storage Temperatures ranging from -40° F to +185° F; • Rain: 1/4 inch of rain per minute; • Fog: 10 feet visibility; • Relative Humidity: 0% - 100%; • Ice: 1/4-inch thickness between the Transponder and the Antenna; • All forms of driving precipitation (sleet, hail, blizzard, etc.); and • Direct sunlight.
293	<p>Transponders will be exposed to direct sunlight, which has been known to cause issues with some Transponders failing to respond to AVI Reader requests and / or providing incorrect reads in some cases. Sunlight screening shall be built into both the Interior and Exterior Transponders to ensure they perform as well under conditions of direct sunlight as in overcast conditions.</p>

4.4.2 Electromagnetic Interference

294	<p>Transponders shall be resistant to electromagnetic interference or noise, electrical interference, and mechanical interference that may typically be found in an ORT environment from sources such as, but not limited to:</p> <ul style="list-style-type: none"> • Wireless data and voice Services; • Satellite radio signals; • GPS devices; • Vehicle electronics;
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	<ul style="list-style-type: none"> • Ignition systems;
	<ul style="list-style-type: none"> • Electrical appliances;
	<ul style="list-style-type: none"> • Lightning (except for direct hits);
	<ul style="list-style-type: none"> • Power tools;
	<ul style="list-style-type: none"> • Power lines;
	<ul style="list-style-type: none"> • Power transformers;
	<ul style="list-style-type: none"> • Mobile and portable communications radios;
	<ul style="list-style-type: none"> • Video Enforcement and Automatic Vehicle Classification Equipment, including inductive loops and lasers;
	<ul style="list-style-type: none"> • Security systems;
	<ul style="list-style-type: none"> • Lighting;
	<ul style="list-style-type: none"> • Speed radar sources and detectors;
	<ul style="list-style-type: none"> • Air conditioning units;
	<ul style="list-style-type: none"> • Windshield wipers;
	<ul style="list-style-type: none"> • Detuned engines;
	<ul style="list-style-type: none"> • Defrosters; and
	<ul style="list-style-type: none"> • Anything else that would reasonably be found in an ORT environment.

4.5 Performance Requirements

4.5.1 Read Performance

295	Vehicles properly equipped with Transponders passing through the toll point shall be detected and read completely at least 99.9% of the time, or no more than one (1) missed read or incorrect detect in one thousand (1,000) equipped vehicle passages.
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4.5.2 Transponder Lifetime

296	For each supplied Transponder model, life expectancy shall not be less than eight (8) years from the date of first use or after 12 months in storage, whichever occurs earlier.
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4.6 Equipment Certification

297	6C Transponders shall be certified by OmniAir Certification Services (OCS) for 6C Interoperability.
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298	If the Transponder has not previously been certified by OmniAir Certification Services (OCS) for 6C Interoperability, Contractor shall undertake interoperable technology testing and obtain Certification by OCS within 90 Days of Contract award.
299	SeGo Transponders shall be interoperable with existing toll systems which use SeGo Readers and Transponders. Contractor shall undertake interoperable technology testing similar to that specified in Attachments 6 and 9 and as approved by NCTA. Successful completion of testing shall be required within 90 Days of Contract award.

4.7 Inventory / Distribution

300	Transponders shall comply with any and all current U.S. and international safety standards to permit unrestricted shipment by mail and commercial carriers with appropriate documentation and in the recommended packaging.
301	Contractor shall ship Hard Case Transponders in boxes with dividers and placeholders.
302	Each box of Transponders shall contain Transponders with serial numbers in sequential order starting at a numerical sequence determined jointly by NCTA and Contractor.
303	Each box of Transponders shall have a barcode marked packing slip and exterior identification with the beginning and ending serial numbers for inventory tracking.
304	Contractor shall provide a spreadsheet of boxes and serial number ranges along with each shipment of Transponders.
305	Contractor shall coordinate with the BOS Contractor to develop the exact content and format of the spreadsheet.
306	NCTA has an ongoing requirement for the items indicated in this Scope of Work and Requirements. It is an express condition of any award that the successful Contractor shall maintain a reasonable stock on hand for delivery. NCTA will work with the successful Contractor by providing a 45-Day notice for required orders.
307	<p>Contractor is required to deliver Transponder orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be assessed. Liquidated damages shall be calculated as follows:</p> <ul style="list-style-type: none"> • For every week, or part thereof, beyond the indicated Guaranteed Delivery Lead Time, 5% of the total order dollar value per week (or part thereof).

4.8 Disposal

308	If there are environmental restrictions on disposal of any type of supplied Transponder, Contractor shall document the proper disposal procedures and the reason for the restrictions.
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4.9 Handheld Reader

309	Contractor shall provide a Handheld Reader that is compatible with the provided Transponders.
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310	The Handheld Reader shall be of ergonomic design and powered by a rechargeable battery.
311	The Handheld Reader shall be able to be carried, moved and operated by one person.
312	The Handheld Reader shall be able to read data from all provided Transponders.
313	The Handheld Reader shall be equipped with a display which displays, at a minimum, the Transponder ID of any Transponder that is read.
314	The Handheld Reader shall support an external interface allowing it to be exchange all Transponder data with a desktop or laptop workstation (supplied by others).
315	Contractor shall provide any Software for Installation on desktop or laptop workstations required to support interfacing with the Handheld Reader.
316	For the Contract Term, and at no additional cost to NCTA, Contractor shall provide the following Software Maintenance Services as it pertains to the Handheld Reader:
	<ul style="list-style-type: none"> • Updates to the Handheld Reader firmware;
	<ul style="list-style-type: none"> • Updates to Software for use on connected workstation;
	<ul style="list-style-type: none"> • Release Notes for firmware and Software; and • Documentation Updates.
317	Contractor shall provide training to NCTA or its designated representatives in the use and Maintenance of the Handheld Reader.
318	The microwave energy radiated from the Handheld Reader shall be well below the limits set by health and telecommunication authorities of United States, and these units shall be allowed for continuous use in an operational environment.
319	Contractor is required to deliver Handheld Reader orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be accessed. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For every day beyond the indicated Guaranteed Delivery Time, \$500 / day.

4.10 Transponder Programmer

320	Contractor shall provide a Transponder Programmer that is compatible with the Transponders.
321	The Transponder Programmer shall allow programming of all agency read-only data fields in the Transponders.
322	Contractor shall provide any Software for Installation on desktop or laptop workstations required to support interfacing with the Transponder Programmer.
323	For the Contract Term, and at no additional cost to NCTA, Contractor shall provide the following Software Maintenance Services as it pertains to the Transponder Programmer:
	<ul style="list-style-type: none"> • Updates to the Transponder Programmer firmware;

	<ul style="list-style-type: none"> • Updates to Software for use on connected workstation;
	<ul style="list-style-type: none"> • Release Notes for firmware and Software; and
	<ul style="list-style-type: none"> • Documentation Updates.
324	Contractor shall provide training to NCTA or its designated representatives in the use and Maintenance of the Transponder Programmer.
325	Contractor is required to deliver Transponder Programmer orders according to the Guaranteed Delivery Lead Time for the Equipment ordered. In the event of late delivery, liquidated damage may be assessed. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For every day beyond the indicated Guaranteed Delivery Lead Time, \$500 / day.

4.1.1 Maintenance

326	Contractor shall provide on-call remote and on-site Maintenance Support Services and other technical support for the Handheld Reader and Transponder Programmer throughout the Contract Term.
327	Contractor shall repair or replace failed Handheld Readers and Transponder Programmers throughout the Contract Term within fourteen (14) days of Equipment failure.
328	For failure to repair or replace failed Equipment, Contractor may be subject to liquidated damages. Liquidated damages shall be calculated as follows:
	<ul style="list-style-type: none"> • For each day beyond fourteen (14) days in which Contractor failed to repair or replace failed Equipment, \$500 per day.

4.1.1.1 Maintenance Support

329	Contractor shall provide remote technical support to the NCTA, the CSC Contractor, or the RTCS Contractor as needed in the diagnosis and resolution of issues associated with the Handheld Reader and Transponder Programmer.
330	Remote support shall include domestic U.S. based staffed telephone support either live or beeper and include email capability. The Contractor shall adequately staff any hotlines to handle all calls from NCTA, the CSC Contractor, or the RTCS Contractor.
331	Contractor shall provide Remote Support via phone on a 24/7 basis. All NCTA, CSC Contractor, and RCTS Contractor requests for remote support shall be answered within fifteen (15) minutes and responded to with a remedy or proposed action plan within a 24-hour period of the inquiry.
332	If a failure or problem with the Handheld Reader or Transponder Programmer cannot be resolved with remote Maintenance Support, Contractor shall dispatch Maintenance personnel to provide onsite assistance to the RTCS Contractor or CSC Contractor.
333	Onsite Response Times shall be determined by Priority as described in Section III, Scope of Work and Requirements , Section 4.1.1.2.

334	<p>In the event that a support request is not answered within required time period (15 minutes), liquidated damages may be assessed. Liquidated damages shall be calculated as follows:</p> <ul style="list-style-type: none"> • For every 15-minute period beyond required response time, \$50 / period.
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4.11.2 Maintenance Priorities and Response Times

335	<p>Onsite Response Time is defined as the elapsed time from when failure or problem was reported to when Contractor Maintenance personnel arrived at the site of the failure or problem.</p>
336	<p>Priority 1: Defined as any malfunction or fault that has the potential to impact revenue or customer service, such as complete failure of a Handheld Reader used for HOV lane enforcement or to test customer Transponders at a service center. This Priority shall have a two (2) day Onsite Response Time.</p>
337	<p>Priority 2: Defined as any malfunction or fault that has not impacted revenue or customer service and is not anticipated to immediately impact revenue or customer service, such as the failure of a Handheld Reader or Transponder Programmer used in a bench test or laboratory setting. This Priority shall have a one (1) week Onsite Response Time.</p>
338	<p>In the event Contractor does not provide Onsite Response within the required time period, liquidated damages may be assessed. Liquidated damages shall be calculated as follows:</p> <ul style="list-style-type: none"> • For Priority 1: every day beyond required two (2) day response time, \$500 / day; and • For Priority 2: every day beyond required one (1) week response time, \$500 / day.

4.12 Testing

339	<p>For each Transponder order placed, a sample (either partial or full) of Transponders may also be lab tested (at NCTA’s expense) from each batch delivered to ensure that they remain operationally consistent with previously delivered Transponders and to ensure the Transponder programming is correct. Any batches failing testing shall be replaced at Contractor’s expense at NCTA’s sole discretion. A batch is considered as failed if there are more than one (1) Transponder error per two hundred (200) tested (0.5%). NCTA will make available any supporting testing documentation.</p>
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4.13 Documentation

4.13.1 End-User Instructions

340	<p>Contractor shall provide instructions suitable for use by end users which document the means of attachment and mounting devices used by all supplied Transponder models.</p>
341	<p>Contractor shall provide a list of vehicle features, such as metallic coated windshields or rearview mirrors with displays, that may interfere with Interior Transponders.</p>

342	Contractor shall provide a list of vehicles equipped with features which may interfere with Interior Transponders. Where applicable, Contractor shall indicate alternate mounting locations or other special instructions which would prevent the interference in particular vehicle types.
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4.13.2 Equipment Documentation

343	Contractor shall provide instructions and Documentation regarding the storage, transport, issue, and disposal of all Transponder models as applicable.
344	Contractor shall provide Cut Sheets, Operating Instructions, Installation Instructions, and Maintenance Instructions as applicable for the Handheld Reader and Transponder Programmer.

4.13.3 Regulatory Compliance

345	Contractor shall provide documentation stating that all provided Equipment and Transponder models are in compliance with appropriate regulations and standards.
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4.14 Project Management Plan

346	Contractor shall develop a Project Management Plan describing how Contractor plans to implement and manage the Project, including staffing, scheduling and communication procedures for controlling all correspondence, Submittals, and other communications between the Contractor and NCTA, and communications with third-party entities.
347	<p>The Project Management Plan shall at a minimum include the following elements:</p> <ul style="list-style-type: none"> • Project scope and key Deliverables; • A description of the management and organization of the program, an organization chart, identification of Key Team Personnel and their responsibilities, percentage commitment to the Project, task leads for each functional area and location and identification of the resources to be used in fulfilling the Requirements of the Contract; • Project team (Contractor, NCTA, NCTA Representatives, NCDOT, and the BOS Contractor) contact information; • A description of the Project planning, Documentation and reporting methods to be utilized, both for use within Contractor’s staff and externally to NCTA and other entities; • A description of the process for communication, escalation and resolution of Project issues with NCTA; • Meeting schedules with NCTA and other entities including the form of the meeting; • Inclusion of the Approved Project schedule; • A description of the process for reporting, updating and tracking the Project schedule and Project performance;

	<ul style="list-style-type: none"> • Approach to change management, consistent with Contract Requirements, including a description of the process for documenting and submitting change requests, the Approval process and how the change management approach will be integrated into day-to-day Project management;
	<ul style="list-style-type: none"> • Approach to document control, including Software (NCTA shall have the capability to download documents using this Software) and tools NCTA will use and have read-only access to via the Web;
	<ul style="list-style-type: none"> • Approach to risk management;
	<ul style="list-style-type: none"> • Approach to Quality Assurance and Quality Control;
	<ul style="list-style-type: none"> • Documenting the invoice submission; invoice backup information; verification, and Approval process;
	<ul style="list-style-type: none"> • A section with all Approved Project forms including but not limited to, meeting agenda; meeting notes; action items tracking log; monthly progress report, and invoices; and
	<ul style="list-style-type: none"> • An emergency contact list.
348	Contractor shall identify the tools and products used to manage the Project including Software development lifecycle and the internal controls instituted by the Contractor to guarantee successful delivery of the Project.
349	Contractor shall develop and submit the Project Management Plan to NCTA for review and Approval.
350	Contractor shall develop and submit the communication procedures to NCTA for review and Approval that address the following, including but not limited to:
	<ul style="list-style-type: none"> • Correspondence: Correspondence shall be identified as to originator and designated receiver and include the form of transmission;
	<ul style="list-style-type: none"> • Document control: Tracking of document versions and changes including naming conventions;
	<ul style="list-style-type: none"> • Invoices: All invoices shall be submitted with accompanying backup information as required by the Contract and consistent with NCTA processes and invoicing and auditing policies. Contractor shall work with NCTA to develop the appropriate invoice and back-up materials as a part of the Project Management Plan development;
	<ul style="list-style-type: none"> • Submittals: All Submittals shall be delivered as an enclosure to Contractor's Submittal letter. Each Submittal letter shall be limited to a single subject or item. Contractor's letter shall identify the Contract number, Contract name and subject of the Submittal;
	<ul style="list-style-type: none"> • Contract number and Contract name: All items of correspondence, invoices, Submittals and Documentation shall contain the Contract number and the designated Contract name; and
	<ul style="list-style-type: none"> • Comments Log: Process for validating that all comments provided by NCTA on Contractor Deliverables are successfully addressed.

Section IV

Proposal Contents and Submission

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I. Content of Proposal

I.1. General

Proposals must be submitted in the format, including sections and heading descriptions, as instructed in this **Section IV**. To be considered, the Proposal must respond as instructed to all requirements in this part of the RFP. Proposers must provide complete Technical and Price Proposals, including all Proposal sections, in accordance with the instructions. Omission of any section will render a Proposal non-responsive and it will not be evaluated. Instructions on the content and form of the Technical and Price Proposals are included in this Section I Content of Proposal. Instructions on how to submit the Technical and Price Proposals are provided in **Section IV, Proposal Contents and Submission Section 2 Submission of Proposals**.

A separate Proposal must be submitted for each Category proposed. Each Proposal for each Category shall be packaged in a separately sealed submittal which itself shall consist of two (2) separately sealed submittals (Technical and Price). All price data relating to this Proposal shall be kept separate from and not included in the Technical Submittal.

Proposers may submit more than one Technical Proposal with a corresponding Price Proposal per Category. If a Proposer submits multiple Proposals for one Category, the Proposer shall separately number each Proposal. For example, Category A: Technical Proposal 1 and Category A: Price Proposal 1. Each separate Technical and Price Proposal shall be packaged and sealed as directed in the paragraph above.

I.2 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. Sections 1 through 6 for each of the Categories shall be limited to a combined total of a specified number of pages as shown in Table IV-I Proposal Page Limitations. Portions of the Proposal that are excluded from these page limitations are also shown in Table IV-I Proposal Page Limitations.

Table IV-I Proposal Page Limitations

Proposal Sections to be Completed by a Proposer Category A Readers	Page Count Limitations Category A Readers	Proposal Sections to be Completed by a Proposer Categories B TDM Transponders and C Local Transponders (each)	Page Count Limitations Categories B TDM Transponders and C Local Transponders (each)
Cover Sheet Form	1 page	Cover Sheet Form	1 page
Cover Letter	2 pages	Cover Letter	2 pages
Executive Summary	2 pages	Executive Summary	2 pages
Section I: Firm and Team Qualifications	Limited to a	Section I: Firm and Team Qualifications	Limited to a combined

Proposal Sections to be Completed by a Proposer Category A Readers	Page Count Limitations Category A Readers	Proposal Sections to be Completed by a Proposer Categories B TDM Transponders and C Local Transponders (each)	Page Count Limitations Categories B TDM Transponders and C Local Transponders (each)
Section 2: Approach to Scope of Work and Requirements	combined total of 100 printed pages	Section 2: Approach to Scope of Work and Requirements	total of 50 printed pages
Section 3: Approach to Project Plan and Implementation		Section 3: Approach to Project Plan and Implementation (N/A)	
Section 4: Approach to Maintenance		Section 4: Approach to Maintenance (N/A)	
Section 5: Adherence to the Scope of Work and Requirements Conformance Matrix	No limitations	Section 5: Adherence to the Scope of Work and Requirements Conformance Matrix	No limitations
Section 6: Other Required Materials	No limitations	Section 6: Other Required Materials	No limitations
Price Proposal	No limitations	Price Proposal	No limitations
Appendix 1: Hardware Cut Sheets	No limitations	Appendix 1: Hardware Cut Sheets	No limitations
Appendix 2: Draft Schedule	No limitations	Appendix 2: Draft Schedule	No limitations
Appendix 3: Audited Financial Statements	No limitations	Appendix 3: Audited Financial Statements	No limitations
Appendix 4: Sample FAT Plan and FAT Report	No limitations (Optional)	N/A	
Appendix 5: Reader ICD Non-Disclosure Agreement	No limitations (Optional)	N/A	
Appendix 6: Sample Reader ICD	No limitations (Optional)	N/A	
Appendix 7: Sample Operating Documentation	No limitations (Optional)	N/A	
N/A		Appendix 8: Sample Transponder Documentation	No limitations (Optional)
N/A		Appendix 9: Sample Transponders	No limitations

The Technical Proposal for each Category shall be submitted in the format shown in the balance of this section. The cover sheet provided as **Exhibit D-1, Forms** shall be completed and included at the front of the Technical Proposal package for each Category submitted to NCTA.

Proposers shall follow the common instructions provided below for provision of required information for each of the Categories unless differing instructions for each Category are specifically identified. Each bulleted/bolded item designates a specific and separate section to be included in the Proposal for each Category.

- **Cover Letter –**

The Proposal shall include a cover letter signed by an officer of the firm with signature authority to enter into the proposed Contract with NCTA. This letter should be very brief and provide the corporate commitment that the Proposal meets the scope, schedule and requirements of the RFP. The letter shall also include the name of the Project Principal, Contractor Project Manager, and Technical Advisor.

- **Executive Summary –**

The executive summary shall be a brief overview, summarizing the Technical Proposal, and explaining how the Proposal being offered best addresses the evaluation criteria listed in this RFP. Describe your understanding of NCTA's requirements and your approach in meeting these requirements. Identify any Subcontractors and discuss their proposed roles on the Project.

- **Proposal Section I: Firm and Team Qualifications –**

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

1. A brief history and description of the Proposer's organizational structure, including size, number of employees, capability and area(s) of specialization.
2. A detailed discussion of the Proposer's qualifications and experience related to **Section III, Scope of Work and Requirements** required by this RFP, including Subcontractors' relevant experience.
3. Annual revenues for the firm and for the subsidiary, division or group responsible for this Project.
4. A copy of the Proposer's audited financial statements for the past two (2) years as Appendix 3 to the Proposal and note in your response to this item that it is provided in Appendix 3. 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 Proposer feels is pertinent in establishing the financial stability of its business/organization. NCTA reserves the right to review other publicly available information with regard to 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 NCTA, the Proposer should communicate with NCTA as set forth in **Section I, Administrative, Section 2.10 Written Clarifications**.

5. A Recent Client List using **Exhibit D-3, Forms**, including a detailed description of the size, total dollar value of the Proposer’s Contract and specific services provided for each client to whom the Proposer provided similar services for the applicable Category of Work within the past five (5) years. Specify the name, address and telephone number of the individual responsible at the client organization for the supervision of such services. Include this list in Proposal Section 6 and note in your response to this item that it has been provided in Proposal Section 6.

6. The Proposer Company Reference Forms, Part 1, using **Exhibit D-4, Forms**. Include these forms in Proposal Section 6 and note in your response to this item that it is provided in Proposal Section 6. The completed forms must include at least one (1) project reference to demonstrate that the Proposer meets the following minimum requirements:
 - Category A – Readers Proposals - Have successfully deployed multi-protocol AVI Readers in a tolling environment within the last two (2) years.
 - Category B – TDM Transponders Proposals - Have successfully deployed TDM Transponders in a tolling environment within the last two (2) years.
 - Category C – Local Transponders Proposals - Have successfully deployed SeGo or 6C Transponders in a tolling environment within the last two (2) years.

7. Provide the following information regarding the Proposer’s team qualifications. Please number and provide the information in the specific format provided below.
 - a. Using the table below, identify the following required Key Personnel on this Project.

Table IV-2 Key Team Personnel Roles and Commitments

Project Principal:	Responsible for the overall performance of the Project; oversight of the Project; the performance of the Contractor Project Manager and a point of contact for any escalated Project issues that cannot be resolved by the Contractor Project Manager.
Contractor Project Manager:	Responsible for all day-to-day Work; the overall execution and delivery of the Project and the day-to-day Contractor contact person on the Project.
Technical Advisor:	Responsible for leading technical support team and providing technical support and coordination with NCTA and other contractors.

- b. Describe the experience of each Key Team Member and how it relates specifically to this Project and applicable Category.
- c. Proposers must complete at least one (1) Key Team References form (Reference Form Part 2) provided in **Exhibit D-5 Forms** for each Key Team

member. (Include in Proposal Section 6 and note in your response to this item that it has been provided in Proposal Section 6.)

8. Complete the RS-2 Form for each Subcontractor as further instructed in **Section I, Administrative**, Section 2.21.4 Listing of Subconsultants. (Include the RS-2 Form in Proposal Section 6 and note in your response to this item that it has been provided in Proposal Section 6.) Subcontractor substitutions after Proposal Submittal shall require NCTA prior Approval.

- **Proposal Section 2: Approach to Scope of Work and Requirements –**

So as to ensure that the Scope of Work and Requirements are clearly addressed in the Proposal, the Proposer’s approach to the Scope of Work and Requirements as specified in **Section III, Scope of Work and Requirements**, shall follow the section numbering, heading titles and outline presented below based on the Category for which it is proposing.

The “Section #” column contents are structured so that the subsections in Proposal Section 2 can be matched to the corresponding sections in **Section III, Scope of Work and Requirements**. For example, Proposal Section 2.2.1.1 contains the Proposer’s response to **Section III, Scope of Work and Requirements**, Section 2.1.1, Physical Requirements.

The “Section Minimum Content” column contains direction for the Proposer’s response to each corresponding Section; that is, a response must address at least as much as is required by the contents of this column for each Section. Proposers are encouraged to provide as much additional information as Proposer deems necessary for each Section.

The response to each Section should include details on how the Proposer’s solution addresses the Requirements or how Proposer proposes to provide these types of services. Please do not respond to Sections stating “will comply”, but describe how Proposer’s firm already complies or will comply, what expertise and unique insights it has in developing a compliant solution and any unique characteristics of the Proposer’s solution.

Category A – Readers		
Section #	Heading	Section Minimum Content
2.1	Background and General Description of Scope Of Work	Provide an overview of the proposed Reader solution, how it complies with the Requirements, and Proposer’s understanding of NCTA’s current and future needs and how the Proposer’s solution will address those needs.
2.2	Category A: Provide Tri-Protocol Readers, Associated Equipment and Services	
2.2.1	Physical / Environmental	For each section, provide details on how the Proposer’s Reader solution addresses the physical and environmental Requirements.
2.2.1.1	Physical Requirements	
2.2.1.2	Environmental Requirements	
2.2.1.3	Standards Compliance	

Category A – Readers		
Section #	Heading	Section Minimum Content
2.2.2	Hardware Requirements	Provide details on how the Proposer’s Reader solution addresses the Hardware Requirements. <u>Include a preliminary design for the proposed Reader and Antenna configuration for Toll Zone 6-2 on the Triangle Expressway (Attachment 1, Drawings C1040-E25 and ITS-03C), Toll Zone 4-1 on the Monroe Expressway (Attachment 4, Sheets GAN-5, GAN-16, GAN-17), and the US-74 westbound reversible Toll Zone (Attachment 5, Sheets 7 and 8).</u> Include details on the proposed Reader and Antenna configuration for each Toll Facility indicated. Provide any cut sheets in Appendix I of the Proposal.
2.2.3	Functional Requirements	
2.2.3.1	Transponder Capture Zone	Provide details on the Transponder Capture Zone configurations supported by the Proposer’s Reader solution and Proposer’s Reader solution’s configurability to support various Transponder Capture Zone layouts.
2.2.3.2	Lane Coverage	Provide details on how the Proposer’s Reader solution addresses the Requirements of this section.
2.2.3.3	Network Capability	Provide information on the configurability of Proposer’s Reader solution via the network.
2.2.3.4	Multiple Reader Synchronization	Provide details on the synchronization requirements of Proposer’s Reader solution and how this Reader solution addresses potential interference between Readers.
2.2.3.5	Tri-Protocol Support	Provide details on Proposer’s Reader solution’s ability to support the required protocols and any unique features of Proposer’s Reader solution in its approach to multi-protocol operations. Describe features that minimize performance penalties of multiprotocol operations, and configurability features that allow tuning of individual protocols and prioritization between protocols.
2.2.3.6	Interface	Provide an overview of the Proposer’s Reader solution’s interface capabilities and how it will address the Requirements of this section.
2.2.3.7	Time Synchronization	Provide an overview of how Proposer’s Reader solution ensures accurate time synchronization with the RTCS.

Category A – Readers		
Section #	Heading	Section Minimum Content
2.2.3.8	Buffered Transponder Reads	Provide details on the Proposer’s Reader solution’s approach to the handling of Buffered Transponder Reads and the Requirements of this section. Include information as to the maximum capacity of Transponder reads that can be buffered before there is a loss of data.
2.2.4	Performance Requirements	
2.2.4.1	Transponder Capture Rate	For each section, provide details on the Proposer’s Reader solution’s ability to meet or exceed the Requirements of these sections while operating in a tri-protocol configuration. Include actual performance metrics and describe whether they are based on empirical testing or calculated. If Proposer’s Reader solution will exceed the Requirements of this section, indicate what level of Performance Proposer is willing to be held to. Identify any unique characteristics of Proposer’s Reader solution that helps it achieve its performance levels.
2.2.4.2	Transponder Reporting Accuracy	
2.2.4.3	Transponder Reporting Speed	
2.2.4.4	Transponder Write Performance	
2.2.4.5	Lane Identification Accuracy	
2.2.4.6	Conditions for Performance Requirements	
2.2.4.7	Reliability and Availability	
2.2.5	Equipment Certification	For each section, provide details on Proposer’s Reader solution’s current (as of the time of Proposal submission) Equipment Certifications or pending Equipment Certifications. For current Equipment Certifications, provide evidence of said Equipment Certification. If Proposer expects to fulfill any of the Equipment Certification Requirements post-award, provide details on Proposer’s approach to obtaining Equipment Certification.
2.2.5.1	E-ZPass Group Equipment Certification	
2.2.5.2	6C Equipment Certification	
2.2.5.3	SeGo Equipment Certification	
2.2.2.6	Testing	
2.2.6.1	Factory Acceptance Testing	For each section, provide details on Proposer’s approach to Factory Acceptance Testing including Proposer’s test facility, any unique testing capabilities or methods Proposer proposes to employ and how Proposer will satisfy the Requirements of these sections. A sample Factory Acceptance Test Plan and/or Factory Acceptance Test Report may be provided as Appendix 4 of the Proposal but are not required.
2.2.6.1.1.	General FAT Requirements	
2.2.6.1.2.	Factory Acceptance Test Plan	
2.2.6.1.3.	Factory Acceptance Test Conduct	
2.2.6.1.4.	Factory Acceptance Test Report	
2.2.6.2	RTCS Factory Acceptance Test Support	Provide details on Proposer’s ability and approach to providing support to multiple RTCS Contractors and their RTCS Factory Acceptance Testing needs. Include examples of previous experience working with various RTCS Contractors and providing support similar to that required in this RFP.

Category A – Readers		
Section #	Heading	Section Minimum Content
2.2.6.3	Onsite Installation Testing Support	Provide details on Proposer’s ability and approach to providing support to multiple RTCS Contractors and their Onsite Installation Testing needs. Include examples of previous experience working with various RTCS Contractors and providing support similar to that required in this RFP.
2.2.6.4	Installation and Commissioning Test Support	Provide details on Proposer’s ability and approach to providing support to multiple RTCS Contractors and their Installation and Commissioning Testing needs. Include examples of previous experience working with various RTCS Contractors and providing support similar to that required in this RFP.
2.2.7	Maintenance and Support	
2.2.7.1	Installation Support	Provide details on Proposer’s ability and approach to providing installation support to multiple RTCS Contractors. Include examples of previous experience working with various RTCS Contractors and providing support similar to that required in this RFP.
2.2.7.1.1.	Triangle Expressway Transition Plan	Provide an overview of Proposer’s approach to transitioning the Triangle Expressway from its current Reader solution to Proposer’s Reader solution. Provide examples of previous experience transitioning from Reader solutions of other manufacturers to Proposer’s own.
2.2.7.2	As-Built Reviews	Provide examples of Proposer’s experience providing reviews of RTCS Contractor as-built materials.
2.2.7.3	Licensing	Provide an overview of the licensing requirements for Proposer’s Reader solution and Proposer’s experience providing licensing support as required in this section.
2.2.7.4	Maintenance	For each section, provide details on Proposer’s approach and experience to providing the various Maintenance services and documentation required in these sections. Include details on Proposer’s approach to meeting the support and response time Requirements.
2.2.7.4.1.	Preventive Maintenance	
2.2.7.4.2.	Corrective Maintenance	
2.2.7.4.3.	Maintenance Priorities and Response Times	
2.2.7.5	Spare Parts	For each section, provide details on Proposer’s approach and experience to meeting the Spare Parts Requirements of these sections.
2.2.7.5.1.	Spare Parts Inventory	
2.2.7.5.2.	Procurement and Control of Spare Parts	
2.2.7.5.3.	Spare Parts Availability	
2.2.7.5.4.	Repair Depot	

Category A – Readers		
Section #	Heading	Section Minimum Content
2.2.7.6	Software Upgrades and Updates	Provide an overview of Proposer’s approach to Software upgrades and updates.
2.2.8	Training	
2.2.8.1	Training Program	For each section, provide an overview of Proposer’s approach and experience to providing training as required in these sections.
2.2.8.2	Training Courses	
2.2.9	Documentation	
2.2.9.1	Interface Control Documents (ICD)	NCTA prefers that the ICD be shareable with the RTCS Contractor(s) and other vendors without requiring a non-disclosure agreement to be executed; however, if a Non-Disclosure Agreement (NDA) is required, Proposer shall submit a copy of such Non-Disclosure Agreement as Appendix 5 of the Proposal and shall identify in its response to this section that a NDA is required, along with any supporting explanation or details. A Sample ICD may be provided as Appendix 6 of the Proposal. Any such samples will not be considered confidential.
2.2.9.2	Operating Documentation	Provide an overview of the type of Operating Documentation that will be provided. Sample Operating Documentation may be provided as Appendix 7 of the Proposal.

Category B – TDM Transponders		
Section #	Heading	Section Minimum Content
2.1	Background and General Description of Scope of Work	Provide an overview of the proposed Transponder solution, how it complies with the Requirements, and Proposer’s understanding of NCTA’s current and future needs and how Proposer’s solution will address those needs.
2.2	Intentionally Omitted	This section should be skipped and numbering continued at the next section to allow responses to align with the RFP section numbering.
2.3	Category B: Provide TDM Transponders, Accessories and Services	
2.3.1	Transponder Types	For each section, provide details on Proposer’s Transponder solution and how it will meet the Requirements of these sections. Include examples of where this Transponder solution
2.3.1.1	Interior Transponder	
2.3.1.2	Interior High-Occupancy Vehicle (HOV) Self Declaration Transponder	

Category B – TDM Transponders		
Section #	Heading	Section Minimum Content
2.3.1.3	Exterior Transponder	has been used in a toll collection setting, including quantities of Transponders sold and in active use by Transponder type. Provide any cut sheets in Appendix I of the Proposal.
2.3.2	Functional Requirements	Provide details on how the proposed Transponder solution meets the Requirements of this section.
2.3.3	Form Factor	
2.3.3.1	Dimensions	For each section, provide details on the form factor(s) and labeling options of the proposed Transponder solution.
2.3.3.2	Transponder Bar Codes	
2.3.3.3	Transponder Labeling	
2.3.4	Physical / Environmental	
2.3.4.1	Operating Environment	For each section, provide details of the proposed Transponder solution’s ability to meet the Requirements of these sections.
2.3.4.2	Electromagnetic Interference	
2.3.5	Performance Requirements	
2.3.5.1	Read/Write Performance	For each section, provide details on the proposed Transponder solution’s ability to meet or exceed the Requirements of these sections including actual performance metrics and whether they are based on empirical testing or calculated. If the proposed Transponder solution will exceed the Requirements of this section, indicate what level of Performance Proposer is willing to be held to. Identify any unique characteristics of the proposed Transponder solution that helps it achieve its performance levels.
2.3.5.2	Transponder Lifetime	
2.3.5.3	Battery Performance	
2.3.6	Equipment Certification	For each section, provide details on the proposed Transponder solution’s current (as of the time of Proposal submission) Equipment Certifications or pending Equipment Certifications. For current Equipment Certifications, provide evidence of said Equipment Certification. If Proposer expects to fulfill any of the Equipment Certification Requirements post-award, provide details on Proposer’s approach to obtaining Equipment Certification.
2.3.6.1	E-ZPass Group Equipment Certification	
2.3.7	Inventory / Distribution	Provide a description of the Proposer’s capacity to provide Transponder quantities as shown in the associated Price Form over the duration of the Contract as well as Proposer’s ability to handle large one-time orders.
2.3.8	Disposal	Provide an overview of any Transponder disposal Requirements.

Category B – TDM Transponders		
Section #	Heading	Section Minimum Content
2.3.9	Handheld Reader	Provide an overview of Proposer’s Handheld Reader solution and how it will meet the Requirements of this section. Discuss the Handheld Reader’s ability to interface to other systems and any features particularly useful for using the Handheld Reader in mobile HOV enforcement. Include a description of Proposer’s approach to Upgrades and patches for the Handheld Reader. Discuss Proposer’s approach to providing training on the Handheld Reader to NCTA staff and designated representatives. Provide any cut sheets in Appendix I of the Proposal.
2.3.10	Transponder Programmer	Provide an overview of Proposer’s Transponder Programmer solution and how it will meet the Requirements of this section. Include a description of Proposer’s approach to Upgrades and patches for the Transponder Programmer. Discuss Proposer’s approach to providing training on the Transponder Programmer to NCTA staff and designated representatives. Provide any cut sheets in Appendix I of the Proposal.
2.3.11	Maintenance	For each section, provide details on Proposer’s approach and experience to providing the various Maintenance services and documentation required in these sections. Include details on Proposer’s approach to meeting the support and response time Requirements.
2.3.11.1	Maintenance Support	
2.3.11.2	Maintenance Priorities and Response Times	

Category B – TDM Transponders		
Section #	Heading	Section Minimum Content
2.3.12	Testing	<p>Provide a description of Proposer’s factory testing process for Transponders, Transponder Programmers, and Handheld Readers and a copy of a typical factory testing certification statement that would be provided upon delivery of the Equipment.</p> <p>Proposer shall provide a sample set of Transponders for testing at no cost to NCTA. The sample shall consist of thirty (30) of each type of Transponder proposed (ten (10) for each vehicle class: 2-axle, 3-axle, 4+-axle). Sample Transponders shall be encoded with the appropriate vehicle class. Transponders may be tested both in the lab and in test vehicles to ensure they meet all Requirements set forth in this RFP. Include the Transponders in separate package within the Proposal marked Appendix 9: Sample Transponders.</p>
2.3.13	Documentation	
2.3.13.1	End-User Instructions	For each section, provide an overview of how Proposer will meet the Requirements of these sections. Sample Documentation may be provided as Appendix 8 of the Proposal.
2.3.13.2	Equipment Documentation	
2.3.13.3	Regulatory Compliance	

Category C – Local Transponders		
Section #	Heading	Section Minimum Content
2.1	Background and General Description of Scope of Work	Provide an overview of the proposed Transponder solution, how it complies with the Requirements, and Proposer’s understanding of NCTA’s current and future needs and how Proposer’s solution will address those needs.
2.2	Intentionally Omitted	These sections should be skipped and numbering continued at the next section to allow responses to align with the RFP section numbering.
2.3	Intentionally Omitted	
2.4	Category C: Provide Local Transponders, Accessories and Services	
2.4.1	Transponder Types	For each section, provide details on Proposer’s Transponder solution and how it will meet the Requirements of these sections. Include
2.4.1.1	Interior Transponder	
2.4.1.2	Exterior Transponder	

Category C – Local Transponders		
Section #	Heading	Section Minimum Content
		examples of where the proposed Transponder solution has been used in a toll collection setting including quantities of Transponders sold and in active use by Transponder type. Provide any cut sheets in Appendix I of the Proposal.
2.4.2	Functional Requirements	Provide details on how the Proposer’s Transponder solution meets the Requirements of this section.
2.4.3	Form Factor	
2.4.3.1	Dimensions	For each section, provide details on the form factor(s) and labeling options of the Proposer’s Transponder solution. <u>Include dimensions (in inches) and weight (in ounces) of the proposed Interior Sticker Transponder.</u>
2.4.3.2	Transponder Bar Codes	
2.4.3.3	Transponder Labeling	
2.4.4	Physical / Environmental	
2.4.4.1	Operating Environment	For each section, provide details of the Proposer’s Transponder solution’s ability to meet the Requirements of these sections.
2.4.4.2	Electromagnetic Interference	
2.4.5	Performance Requirements	
2.4.5.1	Read Performance	For each section, provide details on the Proposer’s Transponder solution’s ability to meet or exceed the Requirements of these sections including actual performance metrics and whether they are based on empirical testing or calculated. If the Proposer’s Transponder solution will exceed the Requirements of this section, indicate what level of Performance Proposer is willing to be held to. Identify any unique characteristics of the Proposer’s Transponder solution that helps it achieve its performance levels.
2.4.5.2	Transponder Lifetime	
2.4.6	Equipment Certification	Provide details on the Proposer’s Transponder solution’s current (as of the time of Proposal submission) Equipment Certifications or pending Equipment Certifications. For current Equipment Certifications, provide evidence of said Equipment Certification. If Proposer expects to fulfill any of the Equipment Certification Requirements post-award, provide details on Proposer’s approach to obtaining Equipment Certification.
2.4.7	Inventory / Distribution	Provide a description of the Proposer’s capacity to provide Transponder quantities as shown in the associated Price Form over the duration of the Contract as well as Proposer’s ability to handle large one-time orders.
2.4.8	Disposal	Provide an overview of any Transponder disposal Requirements.

Category C – Local Transponders		
Section #	Heading	Section Minimum Content
2.4.9	Handheld Reader	Provide an overview of the Proposer’s Handheld Reader solution and how it will meet the Requirements of this section. Discuss the Handheld Reader’s ability to interface to other systems. Include a description of the Proposer’s approach to Upgrades and patches for the Handheld Reader. Discuss the Proposer’s approach to providing training on the Handheld Reader to NCTA staff and designated representatives. Provide any cut sheets in Appendix I of the Proposal.
2.4.10	Transponder Programmer	Provide an overview of the Proposer’s Transponder Programmer solution and how it will meet the Requirements of this section. Include a description of the Proposer’s approach to Upgrades and patches for the Transponder Programmer. Discuss the Proposer’s approach to providing training on the Transponder Programmer to NCTA staff and designated representatives. Provide any cut sheets in Appendix I of the Proposal.
2.4.11	Maintenance	For each section, provide details on the Proposer’s approach and experience to providing the various Maintenance services and documentation required in these sections. Include details on the Proposer’s approach to meeting the support and response time Requirements.
2.4.11.1	Maintenance Support	
2.4.11.2	Maintenance Priorities and Response Times	
2.4.12	Testing	Provide a description of the Proposer’s factory testing process for Transponders, Transponder Programmers, and Handheld Readers and a copy of a typical factory testing certification statement that would be provided upon delivery of the Equipment. Proposer shall provide a sample set of Transponders for testing at no cost to NCTA. The sample shall consist of thirty (30) of each type of Transponder proposed (ten (10) for each vehicle class: 2-axle, 3-axle, 4+-axle). Sample Transponders shall be encoded with the appropriate vehicle class. Transponders may be tested both in the lab and in test vehicles to ensure they meet all Requirements set forth in this RFP. Include the Transponders in separate package within the Proposal marked Appendix 9: Sample Transponders.
2.4.13	Documentation	

Category C – Local Transponders		
Section #	Heading	Section Minimum Content
2.4.13.1	End-User Instructions	For each section, provide an overview of how Proposer will meet the Requirements of these sections. Sample Documentation may be provided as Appendix 8 of the Proposal.
2.4.13.2	Equipment Documentation	
2.4.13.3	Regulatory Compliance	

• **Proposal Section 3: Approach to Project Plan and Implementation**

NCTA has established milestone dates for the Project that are subject to change at the sole determination of NCTA. These milestones are provided in **Exhibit A, Project Schedule**. This list of milestones is not intended to include all Project milestones of the Project, but to present planned major milestones to allow the Proposer sufficient detail to develop a meaningful preliminary Project Schedule as a part of its Proposal. Proposers may identify certain interim milestones on the Project Schedule; however, it is critical that the milestone dates in bold italics are achieved on the dates shown in the schedule.

I. General

- a. The Proposer shall completely describe its approach to the Project and the Scope of Work and Requirements. The Project Plan shall include:
 - i. Project Schedule - a detailed critical path method schedule addressing:
 - 1. Design, Hardware procurement, Software development, implementation and testing, commissioning, training and Maintenance;
 - 2. The schedule shall include payment milestones provided in Exhibit B Payment Schedule (Without payment amounts);
 - ii. Resources and availability of resources;
 - iii. Work flow and assignments;
 - iv. Project correspondence and report delivery, tracking, reviews, approvals, etc.,
 - v. Proposed management initiatives and innovations for site effectiveness and efficiency, such as management and cost control techniques, and cost saving ideas; and
 - vi. Quality Control Plan – a plan that describes the firm’s procedures and techniques for quality control and quality assurance in all areas including development of the system Requirements, functional Requirements, business rules and Design Documentation; Hardware procurement; Software development; implementation and testing; commissioning; Maintenance; and trouble tracking. Each Proposer shall specifically address quality control (how quality is being ensured) and quality assurance (assurance that quality control is effectively being performed).

2. Category A – Readers Only (Categories B and C please note N/A)

- a. Explain the Installation process and how Proposer intends to meet the Installation support requirements of **Section III, Scope of Work and Requirements** while meeting the schedule requirements.

- b. Specifically address what elements will be in place during the Installation process to ensure timely communication and resolution of problems with the RTCS Contractor without the intervention of NCTA.
 - c. Provide an Implementation Phase organization chart that shows planned staffing for all levels of the Project, which is consistent and coordinated with the pricing and staffing provided in the Price Proposal. Do not include price information.
 - d. Explain staffing for Installation support and the intended level of effort. Include location of staff, headcounts and full-time equivalents (FTEs). Provide details on staffing at least one level below the Key Team Personnel. The information provided must be consistent and coordinated with the pricing and staffing provided in the Price Proposal, as well as with the organizational chart provided in item c of this section. Do not include price information.
 - e. Explain the issues and processes involved in the potential replacement of AVI Equipment on the Triangle Expressway. Provide details on recommended approach to AVI Equipment replacement that would minimize impacts to NCTA customers and revenues.
- **Proposal Section 4: Approach to Maintenance**

Provide responses to the items below regarding the Proposer's approach to Maintenance. Please number and provide the information in the specific format provided below.

I. Category A – Readers

- a. Explain the Proposer's approach to Maintenance that will meet or exceed all Maintenance Services and warranty requirements as specified in **Section III, Scope of Work and Requirements**.
- b. Discuss the Proposer's plan to coordinate the delivery of Maintenance Services with the NCTA RTCS Contractor and other interfacing third parties.
- c. Discuss the plan for coordination of NCTA, RTCS contractor, and Proposer's Maintenance responsibilities.
- d. Provide an organizational chart that details how all required Maintenance functions will be staffed with intended level of effort. The organization chart must be consistent with the pricing and staffing assumed and provided in the Price Proposal. Do not include any pricing or cost information in this response.
- e. Explain the Proposer's staffing model and how all required Maintenance functions will be staffed with the intended level of effort identified. Include location of staff, headcounts and full-time equivalents (FTEs). The information must be consistent with the pricing and staffing provided in the Price Proposal, as well as with the organizational chart provided as a part of item d of this section. Do not include any pricing or cost information in this response.
- f. Explain and potential future implementations. Identify potential efficiencies in Maintenance costs as the number of facilities increase. Do not include any pricing or cost information in this response.

- g. Explain the Proposer’s training approach for the Proposer’s Maintenance staff and for NCTA staff and designated representatives.
 - h. Identify specifically what cost items are included in the Maintenance Services and what items would represent additional costs to be charged to NCTA. Do not include any information regarding actual cost or price.
 - i. Provide a description of Proposer's approach to developing and distributing Updates, patches, and Upgrades.
2. Category B – TDM Transponders and Category C – Local Transponders
- a. Explain the Proposer’s approach to Maintenance that will meet or exceed all Maintenance Services and warranty requirements as specified in **Section III, Scope of Work and Requirements**.
 - b. Discuss the Proposer’s plan to coordinate the delivery of Maintenance Services with the NCTA BOS Contractor and other interfacing third parties.
 - c. Provide an organizational chart that details how all required Maintenance functions will be staffed with intended level of effort. The organization chart must be consistent with the pricing and staffing assumed and provided in the Price Proposal. Do not include any pricing or cost information in this response.
 - d. Explain the Proposer’s staffing model and how all required Maintenance functions will be staffed with the intended level of effort identified. Include location of staff, headcounts and full-time equivalents (FTEs). The information must be consistent with the pricing and staffing provided in the Price Proposal, as well as with the organizational chart provided as a part of item c. Do not include any pricing or cost information in this response.
 - e. Explain the Proposer’s training approach for NCTA staff and designated representatives.
 - f. Identify specifically what cost items are included in the Maintenance Services and what items would represent additional costs to be charged to NCTA. Do not include any information regarding actual cost or price.
 - g. Provide a description of Proposer's approach to developing and distributing Updates, patches, and Upgrades.
- **Proposal Section 5: Adherence to the Scope of Work and Requirements, Terms and Conditions and Requirements Conformance Matrix –**
 - l. The Proposer must complete and submit the Excel version of the Requirements Conformance Matrix for the applicable Category which is provided in Excel form in **Exhibit D-6**. The matrix covers each of the functional and technical Requirements set forth in **Section III, Scope of Work and Requirements**. The Excel version of the Requirements Conformance Matrix is attached to the posted PDF of the RFP exhibits and can be downloaded from NCTA’s website at the following address: <https://connect.ncdot.gov/business/Turnpike/>.

2. Proposers are not to alter the technical Requirements listed in the Requirements Conformance Matrix in any way and must use the worksheets provided. The Proposer shall submit a PDF version of the completed matrix in this Proposal Section 5, in addition to submitting the Excel version of the matrix on CD/DVD, as directed in **Section IV, Proposal Contents and Submission**, Section 2.1 Submission of Technical Proposal.
 3. If a Proposer indicates in the Requirements Conformance Matrix that a Technical Requirement is not provided (“N”), the specific Requirement(s) to which exception is taken must also be separately identified and explained in this Proposal Section 5. For each of the “N” items, indicate a description of the exception taken in the comments column of the Requirements Conformance Matrix and provide a more detailed explanation in this Proposal Section 5, using **Exhibit D-12, Forms**, including the Section and Requirement number.
 4. The Proposer must submit its Proposal, including the Price Proposal, on the basis of the terms and conditions set out in **Section V, Terms and Conditions**. The NCTA may reject any Proposal that is conditioned on the negotiation of Terms and Conditions set out in **Section V, Terms and Conditions** or to other provisions of the RFP as specifically identified herein.
 5. In Proposal Section 5, Proposers may identify and describe any key assumptions made related only to **Section III, Scope of Work and Requirements**. No assumptions regarding the Terms and Conditions of the Contract shall be included in the Proposal. Scope of Work and Requirements assumptions may be considered during the Proposal evaluation process at the sole discretion of NCTA.
 6. The Proposer must clearly identify any proposed exceptions to the Terms and Conditions in this Proposal Section 5, which will be considered in accordance with **Section I, Administrative**, Section 2.18 Contractual Obligations. The Contractor waives the right to raise new exceptions and alternatives during negotiations, however, any details not yet defined in the documents by NCTA may still be negotiated.
- **Proposal Section 6: Forms and Submittals –**

Proposers shall provide all Proposal forms required to be submitted as part of the RFP in Section 6 of the Proposal, unless otherwise specifically directed. Proposers shall submit properly completed forms that have been provided in **Exhibit D, Forms**. Please refer to Table IV-3, below, for a Forms and Submittals Checklist. The checklist identifies the location of the form or the Submittal requirement in the RFP and also where the form or Submittal is to be included in the Proposal.

Proposers shall not modify any of the forms unless specifically instructed by NCTA 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 as non-compliant.

Table IV-3 Forms and Submittal Checklist

Form #	Form/Submittal Name	Location in RFP	Location of Form/Submittal in Proposal
Forms to be Submitted			
D-1	Proposal Cover Sheet	Exhibit D-1	Technical Proposal Envelope with Original of Proposal
D-2	RS-2 Form	Exhibit D-2	Technical Proposal Section 6
D-3	Recent Client List	Exhibit D-3	Technical Proposal Section 6
D-4	Reference Forms Part 1	Exhibit D-4	Technical Proposal Section 6
D-5	Reference Forms Part 2	Exhibit D-5	Technical Proposal Section 6
D-6	Requirements Conformance Matrix	Exhibit D-6	Technical Proposal Section 5
D-7	Price Proposal	Exhibit D-7	Price Proposal Envelope
D-8	Proposer Questions Form	Exhibit D-8	N/A: To be used for submission of Proposer questions to NCTA
D-9	Non-Collusion Form	Exhibit D-9	Technical Proposal Section 6
D-10	Surety Commitment Letter	Exhibit D-10	Technical Proposal Section 6
D-11	Acknowledgment of Receipt of Addenda	Exhibit D-11	Technical Proposal Section 6
D-12	Requirement Non-Conformance Detail	Exhibit D-12	Technical Proposal Section 6
Other Proposal Submittals			
N/A	Preliminary Project Schedule	See Section IV-1.2	Technical Proposal Section 4
N/A	Bid Bond	See Section I- 4.1	Price Proposal Envelope

- **Proposal Appendices** - The Proposer shall submit the following materials in the form of Proposal Appendices:
 - Appendix 1. – Hardware Cut Sheets
 - Appendix 2. – Draft Project Schedule
 - Appendix 3. – Audited Financial Statements (Two Years)
 - Appendix 4. – Sample FAT Plan and FAT Report (Category A)
 - Appendix 5. –Reader ICD Non-Disclosure Agreement (Category A)
 - Appendix 6. – Sample ICD Reader ICD (Category A)

- Appendix 7 – Sample Operating Documentation (Category A)
- Appendix 8 – Sample Transponder Documentation (Categories B/C)
- Appendix 9 – Sample Transponders (Categories B/C)

2. Submission of Proposal

All Technical and Price Proposals shall be submitted in sealed envelopes or boxes, bearing on the outside the following information, and delivered to the address provided on the front page of this RFP:

Technical or Price Proposal:

AUTOMATIC VEHICLE IDENTIFICATION (AVI) READERS AND TRANSPONDERS

CATEGORY A: Provide Tri-Protocol Readers, Associated Equipment and Services (as applicable)

CATEGORY B: Provide Time Division Multiplex (TDM) Transponders, Accessories and Services (as applicable)

CATEGORY C: Provide Local Transponders, Accessories and Services (as applicable)

Submitted By:

PROPOSER'S NAME

PROPOSER'S ADDRESS

CITY, STATE, ZIP CODE

PROPOSER'S PHONE NUMBER

2.1. Submission of Technical Proposal

1. **Form of Technical Proposal.** Submit complete Technical Proposals in printed form and on CD/DVD.
 - a. Provide each printed Proposal copy in a single binder with separate sections identified with tab dividers.
 - b. The electronic copy of the Proposal shall be provided in PDF format and shall include all Sections listed in Table IV-I (Cover Letter, Executive Summary, Proposal Sections I – 6, and Appendices). The Proposal shall be in a combined single PDF file that is bookmarked by section and sub-section. Any Proposal exhibits or information prepared either as graphics or with other programs such as scheduling programs shall be viewable in a PDF file without any other software required for Proposal review, with the exception of the Requirements Conformance Matrix which shall, in addition to PDF format, also be provided in Excel format. The Excel version of the Requirements Conformance Matrix shall be included on the Technical Proposal CD/DVD in addition to being included in the printed PDF version of the Proposal.
2. **Page Presentation.** Technical Proposal text shall be single-spaced, a minimum of 10-point Arial or 12-point Times New Roman font, printed on both sides of the page. Each page header

and/or footer should include the Proposer's name and Technical Proposal section, along with page numbers and date of the Proposal.

Supplemental information other than the Proposal Cover Letter, Executive Summary and Proposal response Sections 1 through 6 may be in a different font from that specified; however, in no case should the font be smaller than 9- point and Proposers should consider the overall readability of the document when submitting. NCTA will not be responsible for reviewing portions of proposals with illegible text.

Headers and footers may be in different size font from that specified, subject to the same caveats identified in the previous paragraph.

3. **Number of Copies.** Provide five (5) printed copies and one (1) CD/DVD of all portions of the Technical Proposal. The copy with the original cover letter and cover sheet should be marked "Original". Each copy shall be numbered (e.g., 2 of 5, 3 of 5).
4. **Easy to Read and Cross-Reference.** The Proposers need not duplicate or quote in detail from attached reference materials provided that a summary is included in the technical section and a clear and easy means to locate references to the information is provided. The reference shall include the document name, page number(s) in the document, and paragraph number(s) or line number(s) where the referenced information is located. Underlining, boxing, highlighting, etc. that will call attention to referenced information in a manner that will assist in locating it is recommended.
5. **Writing Style.** Proposal Documentation should provide an example of what Project Documentation will look like. NCTA prefers economy of words, direct writing, active voice, and minimum of marketing superlatives.
6. **Trade Secrets and Confidential Information.** The NCTA is a public agency of the State of North Carolina, subject to the North Carolina Public Records Act, Chapter 132 of the North Carolina General Statutes. The NCTA may maintain confidential information, including any designated as trade secrets or otherwise proprietary, only in accordance applicable Federal and State laws or regulations. The NCTA, 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 may contain a trade secret as defined in G.S. § 66-152 or other information exempted from the North Carolina Public Records Act pursuant to G.S. § 132-1.2, may so designate appropriate portions of its Proposal by marking the top and bottom of pages containing confidential information in boldface type "CONFIDENTIAL." NCTA, however, may serve only as a custodian of information a Proposer deems confidential. NCTA will not act as an arbiter or defender of any claims related to assertions of confidential information. If a request is made for disclosure of information submitted, or an action is brought to compel NCTA to disclose information marked confidential pursuant to G.S. § 132-1 et seq. NCTA will notify the affected Proposer of such request or action.

In submitting a Proposal in response to this RFP, a Proposer agrees to: (i) defend its assertions of confidentiality by instituting appropriate legal proceedings, at its own expense and through its counsel, or intervening in an action brought against NCTA to compel disclosure, to defend its assertions of confidentiality; and (ii) hold the State and NCTA, and any officials or employees

thereof harmless from any and all damages, costs, and attorney's fees awarded against the State and NCTA arising out of any such actions. Nothing in this section shall preclude the State or NCTA from participating in the defense of such actions, at its option and expense through its counsel. NCTA will have no liability to a Proposer with respect to the disclosure of any information, including confidential information, subject to an order by a court of competent jurisdiction pursuant to G.S. § 132-9 or any other applicable law.

NCTA does not intend to divulge the contents of any of the Technical Proposals. NCTA will retain all Technical Proposals until final successful Contract execution, after which NCTA intends to destroy Proposals submitted by unsuccessful Proposers as allowed by law.

2.2 Price Proposal Content and Format

1. The copies of the Price Proposal shall be submitted in a sealed envelope, separate from the Technical Proposal.
2. Price Proposals shall be submitted using the Price Proposal Workbook included as **Exhibit D-7, Forms**.
3. Proposers shall complete the Price Proposal Workbook in accordance with **Exhibit C, Price Proposal Instructions**.
4. One (1) printed copy of the Price Proposal shall be submitted by the Proposer.
5. An original of the bid bond shall be included in the Price Proposal package. Amount and instructions for the bonds is included in **Section I, Administrative**, Section 4.1 Notification of Award.
6. One copy of a CD/DVD containing the Price Proposal in electronic format shall be provided. The file format for the electronic copy of the Price Proposal shall be Microsoft Excel 2010. The CD/DVD containing the Price Proposal shall be clearly labeled with the same nomenclature identified for the outside of the sealed Price Proposal envelope.
7. Proposers shall not include any assumptions in their Price Proposals. If the Proposer includes assumptions in its Price Proposal, NCTA may reject the Proposal. Assumptions should be provided in Proposal Section 5 in the manner set forth in **Section IV, Proposal Contents and Submission**, Section 1.2 Content of Technical Proposal.
8. Any costs for Work that is not provided in the Price Proposal will be assumed as no charge to NCTA.

Section V

Terms and Conditions

Separate Terms and Conditions provided for:

Category A – Readers

Category B – TDM Transponders and Category C – Local Transponders

Section V
Terms and Conditions
Category A – Readers

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I. Contract Terms and Conditions

I.1. Payment Terms and Conditions

1. Payment terms are net thirty (30) Days after receipt of a correct invoice. NCTA is responsible for all payments under the Contract. A “correct” invoice is one that contains an accurate description of the amounts due, is in the Approved format, has no errors, and includes all required supporting information including payment Approvals.
2. The Contractor shall invoice NCTA based on milestone payments set forth in **Exhibit B, Payment Schedule and where quantities or materials are ordered, based on the prices provided in the Approved Contractor Price Proposal Exhibit D-7, Forms.**
3. NCTA may exercise any and all rights of Set Off as permitted in Chapter 105A-1 et. seq. of the N.C. General Statutes and applicable Administrative Rules. Upon Contractor’s written request of not less than thirty (30) Days and Approval by NCTA, NCTA may:
 - a. Forward the Contractor’s payment check(s) or other mutually acceptable means directly to any person or entity designated by the Contractor, or
 - b. Include any person or entity designated in writing by Contractor as a joint payee on the Contractor’s payment check(s), however
 - c. In no event shall such Approval and action obligate NCTA to anyone other than the Contractor and the Contractor shall remain responsible for fulfillment of all Contract obligations.

I.2. Contract Term

The term of the Contract will commence on the Effective Date and will have a base term and an Optional Extension Phase. The Phases of the Project are as follows:

- Implementation Phase – The Implementation Phase shall begin on the Effective Date and shall continue until Commissioning at each of the roadways is complete. Commissioning for the Monroe Expressway, US-74 Express Lanes and Triangle Expressway AVI Replacement will likely be at different dates.
- Maintenance Phase – The Maintenance Phase shall begin upon Commissioning of the first of either the Monroe Expressway or US-74 Express Lanes or the first Triangle Expressway Location, whichever comes first, and shall continue through the end of the base Contract Term for a period of five (5) years.
- Options to Extend – The Optional Extension Phase includes two (2) three (3)-year optional Maintenance extensions to be executed at the sole discretion of NCTA, with the first extension commencing upon the end of the base Contract Term.

Any additions to **Section III, Scope of Work and Requirements** will not change the overall duration of the base term and options to extend, as described in this section.

NCTA will fix the Effective Date after the Contract has been fully executed by the Contractor and by NCTA and all Approvals required by NCTA contracting procedures have been obtained.

I.3. Bonus and Damages

I.3.1. Bonus Payment for On-Time Completion

Coordination and cooperation among the Contractor and the RTCS Contractor(s) is critical in order to meet the Go-Live Date for Monroe Expressway. This date is listed in **Exhibit A, Project Schedule**. As such, the NCTA desires that the Contractor work with the RTCS contractor with such labor, Equipment and materials and testing as necessary to ensure that the Go-Live Date for Monroe Expressway will be met without regard to the time extensions and time reliefs provided for in this Contract. Therefore, as full compensation for all extra cost involved and subject to the conditions outlined herein, the NCTA agrees to pay as a bonus to the Contractor as noted below:

In the event that Go-Live date for Monroe Expressway is achieved by the Go-Live Date set forth in **Exhibit A, Project Schedule**, \$50,000 will be paid to the Contractor.

For purposes of the bonus, the Go-Live Date for the Contractor shall mean the following has occurred: All Toll Locations on the Monroe Expressway have been commissioned, the Host has been commissioned, full and correct data transmission to and from the NCTA Back Office System is taking place and the RTCS is in full revenue service, successfully collecting revenue at all toll locations.

If the RTCS contractor does not Go-Live by the Go-Live Date, the Contractor shall not be entitled to any portion of the bonus, regardless of the cause or responsible party. No partial bonus payments for partial completion of any Work will be made.

I.3.2. Liquidated Damages

1. Liquidated damages per Calendar Day may be assessed for the Contractor's failure to complete Work by the milestone dates set forth in **Exhibit A, Project Schedule** as further described in **Section III, Scope of Work and Requirements**. The liquidated damages per Calendar day are set forth in **Section III Scope of Work and Requirements**, Section 2.6.
2. The parties agree that actual damages to NCTA as a result of the Contractor's failure to provide the promised Services would be difficult or impossible to determine with accuracy. The parties agree that liquidated damages as set out herein shall be a reasonable approximation of the damages that shall be suffered by NCTA as a result of the Contractor's failure to provide the promised Services. Accordingly, in the event of such damages, at the written direction of NCTA, the Contractor shall pay indicated amounts as liquidated damages, and not as a penalty.
3. Amounts due to NCTA as liquidated damages, if not paid by the Contractor within fifteen (15) Days of notification of assessment, may be deducted by NCTA from any money payable to the Contractor pursuant to this Agreement. NCTA will notify the Contractor in writing of any claim for liquidated damages pursuant to this paragraph on or before the date NCTA deducts such sums from money payable to the Contractor. No delay by NCTA in assessing or collecting liquidated damages shall be construed a waiver of such rights.
4. If the Authority elects not to impose liquated damages in a particular instance, said decision shall not be construed as a waiver of the Authority's right to pursue future assessments for failure to meet project milestones or Performance Requirements and associated liquidated damages; nor construed to limit any additional remedies available to the Authority.

5. Payment adjustments will be assessed not as a penalty, but as liquidated damages for not meeting the Maintenance Performance Requirements set forth in **Section III, Scope of Work and Requirements**, Section 2.7, Maintenance Support. If in the performance of the Services the Contractor does not meet or exceed the Performance Requirements identified therein, NCTA will reduce the amount it would otherwise pay to the Contractor for such Services subject to the reduction amounts and limits set forth therein.
6. NCTA may recover any and all liquidated damages by deducting the amount thereof from any monies due or that may become due from the Contractor, notwithstanding any liens, Notices of liens or actions of Subcontractors, and if said monies are insufficient to cover said damages, then the Contractor or the surety shall promptly pay any remaining amounts due on demand.
7. In the event that liquidated damages are disallowed for any reason whatsoever, NCTA will be entitled its actual damages including any and all consequential or incidental damages.
8. Nothing herein contained shall be construed as limiting NCTA's rights to recover from the Contractor any and all other amounts due or that may become due to NCTA, or any and all costs and expenses sustained by NCTA for improper performance hereunder, or for breach or breaches in any other respect including, but not limited to, defective workmanship or materials.

I.3.3. Actual Damages

1. The Contractor acknowledges that its performance after Go-Live is critical to the operation of NCTA in so much as the Services to be provided pursuant to this Agreement directly involve NCTA's revenue and customer service. The Contractor agrees that the actual damages set forth in this Section I.3.3 are fair and reasonable and shall be incurred by the Contractor in the event of unsatisfactory performance.
2. The Contractor shall reimburse NCTA for any revenue, which NCTA identifies as having been lost due to the fault of the Contractor and which cannot be recovered. NCTA may choose, in its sole discretion, to recover such lost revenue from the Contractor by deducting such amounts from payments otherwise due and owing from NCTA to the Contractor. Lost revenue includes, but is not limited to, such events as lost transactions; lost data and transactions that are not able to be collected upon due to delays in Contractor processing.
3. The Contractor shall be responsible for any other costs incurred as a result of its improper handling of these Services, including, repair and replacement costs and special mailings to customers to notify them of a mistake in their monthly statements due to AVI transaction gathering and processing failures and inaccuracies directly related to the non-performance of the Contractor Reader and/or other Equipment.

I.3.4. Risk of Loss

The Contractor assumes the following distinct and several risks without limitation, whether they arise from acts or omissions (whether negligent or not) of the Contractor or of any of its Subcontractors and suppliers, excepting those risks which arise from negligent acts or omissions of the NCTA:

1. The risk of loss or damage to any property of the NCTA arising out of or alleged to have arisen out of or in connection with the performance of Services pursuant to this Agreement; 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 this Agreement.

2. The risk of loss for all Equipment until delivered by the Contractor. Title and ownership of the Equipment (other than the Software), and the right to possess and use the Software pursuant to the rights and licenses granted to the NCTA under this Agreement, shall pass to the NCTA upon delivery, subject, in the case of such title and ownership, to the Equipment conforming to the Requirements set forth in **Section III, Scope of Work and Requirements**.

I.4. Audits and Financial Reporting

I.4.1. Audit and Examination of Records

I. Definition of Records

- a. Contract Records shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the Contractor's performance of the Contract determined necessary or desirable by the NCTA for any purpose.
 - b. Proposal Records shall include, but not be limited to, any material relating to the determination or application of Equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from Subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by the Contractor in determining a price.
2. Pursuant to G.S. 147-64.7, NCTA, the State Auditor, appropriate Federal officials, and their respective authorized employees or agents are authorized to examine all books, records, and accounts of the Contractor insofar as they relate to transactions with any department, board, officer, commission, institution, or other authority of the State of North Carolina pursuant to the performance of this Contract or to costs charged to this Contract. Additional audit or reporting Requirements may be required by any authority, if in NCTA's opinion, such requirement is imposed by Federal or State law or regulation. The State Auditor and internal auditors of NCTA may audit the records of the Contractor during and after the term of the Contract to verify accounts and data affecting fees and performance.
 3. NCTA reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the Contractor or any Subcontractor. By submitting a response to the RFP, Contractor or any Subcontractor submits to and agrees to comply with the provisions of this Section I.4.
 4. If NCTA requests access to or review of any Contract Documents or Proposal Records and Contractor refuses such access or review, Contractor shall be in default under its Contract with NCTA, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension, termination or disqualification of Contractor. These provisions shall not

be limited in any manner by the existence of any Contractor claims or pending litigation relating to the Contract. Disqualification or suspension of the Contractor for failure to comply with this section shall also preclude the Contractor from acting in the future as a subcontractor of another contractor doing work for NCTA during the period of disqualification or suspension. Disqualification shall mean the Contractor is not eligible for and shall be precluded from doing future work for NCTA until reinstated by NCTA.

5. Final Audit for Project Closeout: The Contractor shall permit NCTA, at NCTA'S option, to perform or have performed an audit of the records of the Contractor and any or all Subcontractors to support the compensation paid the Contractor. The audit will be performed as soon as practical after completion and Acceptance of the contracted Services. In the event funds paid to the Contractor under the Contract are subsequently determined to have been inadvertently paid by NCTA because of accounting errors or charges not in conformity with the Contract, the Contractor agrees that such amounts are due to NCTA upon demand. Final payment to the Contractor shall be adjusted for audit results.
6. Contractor shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of three (3) years after the later of: (i) Final Acceptance of the Project by NCTA, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records.

I.5. Contractor Cooperation

1. During the course of this Agreement, NCTA may undertake or award other agreements for additional work, including but not limited to separate agreements with different contractors, including but not limited to civil construction work on the roadways and direct support to RTCS integrators, NCTA Back Office System and Operations contractors and associated work. It is critical that close coordination with interfacing contractors occurs throughout the term of this Agreement. Contractor shall fully cooperate with NCTA and the parties to all other contracts and carefully integrate and schedule its own work with said parties.
2. NCTA will expect all contractors to comply with all technical specifications, special provisions and other terms and conditions applicable to the contract(s) at all times during the performance of the contract(s). In the event of a dispute between contractors, clarifications may be sought from NCTA; provided Contract Terms, conditions or obligations shall remain in effect, excepting in instances wherein a Change Order, Extra Work, or other Contract modification is duly executed in writing in accordance with this **Section V, Terms and Conditions**; however contractors shall engage in all efforts to resolve disputes prior to participation of NCTA and further, such participation by NCTA does not imply or represent a NCTA 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
 - a. The Contractor shall fully cooperate with NCTA and its designated contractor(s) as necessary to develop ICDs as set forth in **Section III, Scope of Work and Requirements**. The ICDs shall specify all specifications, parameters, Reader Requirements, programming interfaces and all other elements to effectively and

completely interface the components of the AVI Readers and Equipment being provided by the various interfacing contractors. The Contractor shall be responsible for its respective roles and responsibilities as set forth in **Section III, Scope of Work and Requirements.**

- b. In the event that the elements comprising the AVI Readers and Equipment and the RTCS do not properly interface with each other, and the Contractor's and the interfacing contractors' collective efforts to correct the problems are untimely or unsuccessful, or the interfacing contractors fail to cooperate with the other NCTA designated and/or interfacing contractor(s) to the satisfaction of the NCTA and as determined at NCTA's sole discretion then, in addition to NCTA's other available remedies, NCTA will have the right to, in whole or in part, withhold and/or require a refund of payments to the Contractor and/or the interfacing contractors involved in developing the ICD.
4. Additional Coordination and Cooperation Requirements
- a. It is anticipated that work by one or more contractors of the NCTA, may be in progress adjacent to or within the limits of this Project during progress of the Work on this Contract. The Contractor shall work closely with NCTA and any other contractors who will be working for NCTA for the purpose of coordinating any activity which may affect both contractors. Examples of this Work include but are not limited to installation of toll Equipment, Equipment testing, power and conduit installation and maintenance and protection of traffic.
 - b. Should problems in coordination with other contractors occur the Contractor shall make NCTA aware of these problems immediately and shall take steps to address the problems and mitigate any delays or additional costs. Contractor shall not commit or permit any act that will interfere with the performance of Work by any other contractor or by NCTA.
 - c. Contractor shall cooperate with all other contractors or forces performing construction or work of any other nature within or adjacent to the limits of the Work specified in order to avoid any delay or hindrance to the other contractors or forces. NCTA reserves the right to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.
 - d. Each contractor shall be responsible to the other for all damage to Work, to persons or property caused to the other by their operations, and for loss caused the other due to unnecessary delays or failure to finish the Work within the time specified for completion.

5. Contractor Responsibility for Performance Based on Approved Installation

The Contractor shall provide input and approval on the RCTS Installation with respect to the AVI Readers and Equipment, including placement in toll related civil infrastructure. Contractor shall assume responsibility to the extent that if the AVI Readers and Equipment are installed in accordance with the Contractor-approved Installation design and the Contractor has also approved the AVI Readers and Equipment Installations, and further, if the AVI Readers and Equipment then do not meet the Performance Requirements of this

Contract, the Contractor shall be responsible for any costs of redesign, reinstallation, civil rework and additional Equipment costs and any other costs associated with the sub-standard performance.

I.6. Warranties

I.6.1. Warranty during Maintenance Phase

A full warranty shall be provided by the Contractor on all Reader Equipment, Hardware and Software for the term of the Maintenance Phase and any extensions thereof. As a result, during the Maintenance Phase NCTA shall not pay any additional charges in excess of the prices set forth in the Contractor's agreed-to Price Proposal for Maintenance Phase Work, other than Work related to agreed-to Force Majeure events or agreed-to out of scope work requested by NCTA, pursuant to **Section V, Terms and Conditions**, Section 2.2 Change Orders, Section 2.3 Extra Work Orders, and Section 2.4 Maintenance Task Orders. Notwithstanding the foregoing, in the period after Installation and prior to commissioning shall be at Contractor's sole expense. Such Work shall be at no charge to NCTA and shall include replacement, whether pre-or post-commissioning, on any unit of Equipment, Hardware or Software, or part or component thereof, which NCTA deems defective or insufficient, or which NCTA deems to have failed to comply with **Section III, Scope of Work and Requirements**. All transportation, labor and fees associated with restocking cancelled 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.

The provisions of this Section 1.6.1 shall survive the expiration, cancellation, or termination of this Agreement.

I.6.2. Software Warranties

1. The Software needed to operate the Readers shall be as set forth in **Section III, Scope of Work and Requirements**. NCTA's Acceptance of the Software shall occur in accordance with the provisions of **Section III, Scope of Work and Requirements**. The Contractor warrants that, upon NCTA's Acceptance of and for the Contract Term, including any extensions thereof, the Software and each module or component and function thereof shall:
 - a. be free from defects in materials and workmanship under normal use;
 - 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 Readers by NCTA or its designees, or permit access to NCTA's computing systems without its knowledge or contrary to its system connectivity policies or procedures;
 - c. not interfere with toll collection;
 - d. operate and function fully, properly and in conformity with the warranties in this Agreement;
 - e. meet the Requirements set forth in sub-paragraphs 2 through 12 of this Section 1.6.2.
2. The Contractor represents and warrants that upon NCTA's Acceptance of and for the

Contract Term, including any extensions, the Software will:

- a. operate fully and correctly in the operating environment identified in **Section III, Scope of Work and Requirements**, 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;
 - b. be fully compatible and interface completely and effectively with the Equipment, including other Software programs provided to NCTA hereunder, such that the other Software and Equipment combined will perform and continuously attain the standards identified in **Section III, Scope of Work and Requirements**, and
 - c. accurately direct the operation of the Readers, as required by **Section III, 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 Readers shall perform in accordance with this Agreement, the Scope of Work and Requirements, 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 **Section III, Scope of Work and Requirements**.
 5. The Contractor shall provide NCTA the most current release of all Software available on the date of delivery to maintain optimum performance pursuant to this Agreement.
 6. The Contractor shall promptly provide Notice to NCTA 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 NCTA 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 NCTA, and the cost of such Hardware will be borne solely by the Contractor.
 7. No Updates or enhancements shall adversely affect the performance of the Readers, in whole or in part, or result in any failure to meet any Requirements of **Section III, Scope of Work and Requirements**.
 8. The Contractor shall obtain Maintenance agreements for any applicable third-party Software in accordance with **Section V, Terms and Conditions**, Section 1.6.3 Third-Party Warranties. The Contractor shall secure such Maintenance agreements for the same duration and upon the same terms and conditions as the Maintenance provisions between the Contractor and NCTA. All third-party contracts and licenses shall be assignable to NCTA.
 9. In the event that the Software does not satisfy the conditions of performance set forth in **Section III, Scope of Work and Requirements**, the Contractor shall promptly repair or replace such Software at the Contractor's sole cost and expense or, if expressly agreed to in

writing by NCTA, provide different Equipment or Software, and perform Services required to attain the Performance Requirements set forth in **Section III, Scope of Work and Requirements**.

10. In the event of any defect in the media upon which any tangible portions of the Software is provided, the Contractor shall provide NCTA with a new copy of the Software.
11. Without releasing the Contractor from its obligations for warranty (during an applicable warranty period), support or Maintenance of the Software, NCTA will 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 any Updates or enhancements if, in NCTA'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 NCTA that occurs after the Contractor has both (i) offered, by written Notice to NCTA, a suitable correction (by way of Update, enhancement or otherwise) of such error or defect and (ii) provided NCTA 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 Interoperability, functionality or quality of the Readers.
12. All provisions of this Section 1.6.2 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 this Agreement.

1.6.3. Third-Party Warranties

In addition to the foregoing warranties, the Contractor shall assign to NCTA, and NCTA will have the benefit of, any and all Subcontractors' and suppliers' warranties and representations with respect to the Readers 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 NCTA, (b) agree to the enforcement of such warranties and representations by NCTA in its own name, and (c) furnish to NCTA the warranties set forth herein. At NCTA's request, the Contractor shall provide supporting Documentation which confirms that these warranties are enforceable in NCTA's name.

1.6.4. 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 NCTA's Requirements as set forth in **Section III, Scope of Work and Requirements**. In the event NCTA determines that any Services do not conform to the foregoing warranty, NCTA will be entitled to elect one of the following remedies: (i) re-performance of the Services by the Contractor until NCTA deems them to be in conformity with the warranty in this Section 1.6.4, at no charge to NCTA; (ii) refund from the Contractor for all fees paid in connection with the Services, which NCTA deems were not as warranted, subject to the provisions of **Section V, Terms and Conditions**, Section 1.3.2 Liquidated Damages 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 NCTA's costs and expenses incurred in having the Services re-performed by NCTA or someone other than the Contractor. Notwithstanding the

foregoing, nothing in this Section 1.6.4 shall be construed to limit NCTA's rights pursuant to **Section V, Terms and Conditions**, Section 2.5.2 Termination for Cause.

1.6.5. Additional Warranties

The Contractor warrants the following:

1. All guarantees and warranties made herein are fully enforceable by NCTA acting in its own name.
2. All provided Equipment is new and unused.
3. Warranties provided in this Section 1.6 are in addition to warranties set forth in the General Conditions.

1.6.6. Pervasive Defects

The Contractor agrees to promptly remedy, at no cost to NCTA, any defects determined by NCTA to be Pervasive, such that if NCTA determines that any Equipment, component, sub-component or Software is experiencing continued or repetitive failure that requires constant replacement or repair, the Contractor agrees that a "Pervasive Defect" shall be deemed to be present in such affected types of Equipment or Software. The Contractor shall perform an investigation of the issues and prepare a report that includes a reason for the failure and Contractor's Plan for remedy. Such correction shall be in a manner satisfactory to NCTA 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 this Agreement. The provisions of this section shall survive the expiration or earlier termination of this Agreement.

1.6.7. General Guaranty

Neither Acceptance of the Readers and Services or payment thereof, nor any provision in this Agreement, nor partial or entire use of the Readers and Services by NCTA will constitute an Acceptance of Services not performed in accordance with this Agreement or relieve the Contractor of liability for any express or implied warranties or responsibility for faulty materials or workmanship.

This includes any Readers, processes, methods, applications, technical data specifications and other Documentation (including those provided by the Contractor, any third-party or currently used by NCTA) comprised or practiced by the Equipment or that are necessary or useful to operate the Readers.

1.7. Authority of the Project Manager

1. The Contractor hereby authorizes the NCTA Project Manager to 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, this Agreement including, without limitation: questions as to the value, acceptability and of the Services; questions as to either party's fulfillment of its obligations under this Agreement; negligence, fraud or misrepresentation before or subsequent to execution of this Agreement; questions as to the interpretation of **Section III, Scope of Work and Requirements**; and claims for damages, compensation and losses.
2. The Project Manager shall act as the designated representative of NCTA in all matters relating to the Project.

3. The Project Manager may give orders to the Contractor to do Work that the Project Manager determines to be necessary for the Contractor to fulfill the Contractor's obligations under this Agreement.
4. If requested by the Contractor, the Project Manager will promptly provide appropriate explanations and reasons for his determinations and orders hereunder.
5. The Contractor shall be bound by all determinations or orders and shall promptly obey and follow every order of the Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the Project Manager's determination or order. Orders shall be in writing, unless not practicable, in which event any oral order must be confirmed in writing by the Project Manager as soon thereafter as practicable.

I.8. Key Team Personnel

The Contractor has designated an individual Project Principal, identified in the Proposal, who is an officer authorized to sign the Agreement and any Amendments to the Agreement and to speak for and make commitments on behalf of the Contractor. The Contractor shall also designate a project manager ("Contractor Project Manager"), identified in the Proposal, who shall act as the primary point of contact in all matters on behalf of Contractor. The Project Principal, Contractor Project Manager, and Technical Advisor shall be designated as Key Team Personnel.

The Contractor Project Manager shall assign other individuals as contacts with regard to specific functional areas of the Work, subject to the Approval of NCTA. NCTA will have input into determining who will be assigned as Contractor Project Manager for the Contractor and the Contractor may not change the Contractor Project Manager without consulting with NCTA and obtaining Approval from NCTA.

If NCTA becomes dissatisfied with the performance of any person designated as Key Team Personnel performing under this Agreement, NCTA will notify 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 NCTA or present to NCTA a Plan for correcting the incumbent's performance deficiencies within a period of twenty (20) Business Days thereafter. If either NCTA rejects the Plan presented by Contractor or the incumbent's performance deficiencies are not corrected to NCTA's satisfaction within the twenty (20) Business Day plan period Approved by NCTA, then the Contractor shall, within ten (10) Business Days after rejection of the Plan or expiration of the twenty (20) Business Day plan period, propose to NCTA a replacement person for evaluation and Approval by NCTA.

I.9. Phases of the Project and Acceptance

I.9.1. Phases of the Project

Contractor shall perform all planning, design and Software development, testing and support Services and complete and have Approval for all corresponding Submittals, Deliverables and milestones required in **Section III, Scope of Work and Requirements** for the Implementation Phase for the Monroe Expressway, the US-74 Express Lanes, and the Triangle Expressway AVI Replacement. The Implementation Phase shall begin at Contract Effective Date and shall be complete upon Commissioning and close-out, as further defined in this Agreement and in **Section III, Scope of Work and Requirements**.

The Contractor's Maintenance Phase responsibilities at each of the Monroe Expressway, the US-74 Express Lanes and the Triangle Expressway AVI replacement shall begin upon Commissioning, and shall continue until the expiration of the Contract Term, including any Contract renewals or extensions thereof. Commencement of this phase shall not relieve the Contractor of any of its responsibilities to complete all Requirements set forth in **Section III, Scope of Work and Requirements** of the Implementation Phase and does not waive any of the rights of NCTA in this regard.

I.9.2 Acceptance of Project

Project Acceptance will be considered to have occurred when NCTA, in its sole discretion, determines that Contractor has complied with all of the completion Requirements set forth for the Project for both the Implementation and Maintenance Phases, pursuant to **Section V, Terms and Conditions**, Section I.9.3 and I.9.4 below.

NCTA's beneficial use of the Project Deliverables during any phase prior to Project Acceptance shall not constitute Acceptance of any Deliverable, nor shall such use give rise to equitable claim for adjustment.

I.9.3 Project Acceptance of All Phases

Project Acceptance shall mean the Final Acceptance for all Phases, including both Implementation and Maintenance, and shall be deemed to have occurred when all of the following conditions have been met:

1. The Contractor shall provide a Project Acceptance Letter Certification to close out the Agreement. The Certification shall include but not be limited to: total costs associated with the Agreement, date of Work completion and any additional required information contained in items 2 through 8 below, if applicable;
2. The Implementation Phase has been Approved and closed out in accordance with **Section III, Scope of Work and Requirements**.
3. The Contractor has met all end of Contract and transition Requirements pursuant to **Section V, Terms and Conditions**, Section 2.6 End of Contract and Transition and **Section III, Scope of Work and Requirements**;
4. The Contractor has provided NCTA with all required materials, fixtures, furnishings, Equipment and Software; Documentation and manuals, either owned by or licensed to NCTA, pursuant to this Agreement. All such materials have been verified by NCTA to be in good, working order;
5. An affidavit has been delivered to NCTA, signed by the Contractor, stating all debts and claims of suppliers and Subcontractors have been paid and/or settled;
6. All Contractor claims for each Phase are deemed to be resolved by NCTA, and the Contractor has submitted a statement that no such requests or protests will be applied for; any and all claims under this Agreement are resolved, and that no such claims will be made;
7. All Requirements identified in **Section III, Scope of Work and Requirements** shall be verified and Certified by the Contractor to be successfully delivered, and shall be Approved by NCTA; and
8. All the Contractor's other obligations under the Agreement shall have been satisfied in full or

waived by NCTA.

1.9.4 Project Completion

Project Completion shall be deemed to have occurred when all obligations under this Agreement have been successfully performed by the Contractor, including but not limited to all retentions owed to the Contractor have been released by NCTA and, when NCTA has delivered a Notice of Project completion to the effect of the foregoing.

1.10. Contract Documents and Order of Precedence

The Agreement is composed of the following documents and 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
2. RFP **Section V, Terms and Conditions Sections 1 and 2**, including Addenda
3. RFP **Section I, Administrative** and RFP **Section IV Proposal Contents**
4. RFP **Section III, Conformed Scope of Work and Requirements**, including Attachments I-12 and Addenda
5. RFP **Section V, Terms and Conditions**, Section 3 General Terms and Conditions
6. Contractor's Price Proposal
7. Contractor's Technical Proposal, including Exhibits and Appendices other than Price Proposal

2. Contract Changes and Termination

2.1. General

The following Contract changes are allowable within the scope of this Contract:

1. Change Orders – The NCTA anticipates using Change Orders to address variances in the original quantities tabulated pursuant to the RFP.
2. Extra Work Orders –The NCTA anticipates issuing Extra Work Orders to address variances in the specifications or **Section III, Scope of Work and Requirements** for which there is no appropriate pay item or category. Extra Work Orders will be issued within the sole discretion of the NCTA, and such additional Work may be subject to a new competitive procurement as deemed to be in the best interest of the NCTA.
3. Task Orders – The NCTA anticipates issuing Task Orders for Work required to enhance Software, Upgrade Equipment, enhance or otherwise improve Maintenance Services for needed activities in accordance with labor rates proposed and set forth in the Price Proposal.
4. Time Extensions – The NCTA anticipates issuing Time Extensions, as necessary, to modify Project milestones for reasons out of the control of the Contractor. Unless otherwise agreed to by the NCTA in writing, the Contractor's payment schedule and Price Proposal, including labor rates identified in the Price Proposal, shall apply to all of the Contract changes discussed in this section.
5. If cost for additional Work and/or Services cannot be established on the basis of the Price Proposal or the Payment Schedule, a catalog or market price of a commercial product sold in substantial quantities, or on the basis of prices set by law or regulation, the Contractor is

required to submit to the NCTA detailed cost breakdowns, including information on labor and materials costs, overhead and other indirect costs.

2.2. Change Orders

1. A Change Order will be a change in Contract quantities to expand the Scope of Work and Requirements. For example, to add an additional Tolling Location or locations with associated AVI Readers and Equipment, or provide such Equipment beyond the Project limits of the Monroe Expressway, US-74 Express Lanes or Triangle Expressway. NCTA may elect to have the Contractor perform the Change Order Work. In this case, the Contractor shall provide a detailed Technical and Price Proposal for the order, and await Approval and Notice to Proceed from NCTA before incurring any expenses for which the Contractor expects reimbursement.

2.3. Extra Work Orders

An Extra Work Order will ONLY be a change in the Scope of Work and Requirements requiring different functionality, Hardware or Software or a Contract term than that covered by the existing Contract or a change to a Contract Term and condition with an impact. Some examples include:

1. Addition of a new Protocol; or
2. Changes to insurance or legal requirements.

2.4. Time Extensions, Schedule Changes and Submittals

2.4.1. Time Extensions and Schedule Changes

1. Within fourteen (14) Calendar Days of Notice to Proceed the Contractor shall submit a Project Schedule for Approval in accordance with the Requirements set forth in **Section III, Scope of Work and Requirements**. The Approved Project Schedule at the time of the execution of the Agreement shall be included as **Exhibit X**, Project Schedule.
2. The Contractor shall clearly label each update against the Approved Project Schedule, pursuant to the Requirements of the Approved Project Management Plan. Submission of the monthly updates against the Approved Schedule for the Implementation Phase shall not release or relieve the Contractor from full responsibility for completing the Work within the time set forth in the Approved Project Schedule. If the Contractor causes delays and fails or refuses to implement measures sufficient to bring its Work back into conformity with the current Approved Project Schedule, its right to proceed with any or all portions of the associated Work may be terminated under the provisions of the Contract. However, in the event that NCTA, in its sole determination, should permit the Contractor to proceed, the NCTA's permission will in no way operate as a waiver of its rights nor will it deprive NCTA of its rights under any other provisions of the Contract.
3. NCTA will Approve Time Extensions ONLY for Force Majeure causes or acts by NCTA which have been documented to have impeded the Contractor's Project progress.
4. Any changes to the Approved Project Schedule require Approval and an Amendment to the Contract.

5. Unless otherwise expressly agreed to by NCTA, the Contractor shall not receive extra compensation or damages for any time extension Approved by NCTA for completion of additional and/or altered Work. However, the Contractor shall be fully compensated for such Work as agreed upon by NCTA and the Contractor in the Change Order or Extra Work Order.

2.4.2. Submittals

Contractor's Submittal requirements and Submittal schedule shall be as set out in Contractor's Approved Project Management Plan, as required in **Section III, Scope of Work and Requirements**. The baseline schedule Approved after Notice to Proceed shall establish accepted dates by which Contractor shall submit required permits, documents, and applications, including all necessary documents in support thereof. NCTA's written Approval will be required for these Submittals. NCTA will Approve or reject such Submittals, providing an explanation of any reasons for rejection in a form agreed to in the Project Management Plan. In any instance where NCTA does not provide Approval, rejection or written notification of an extended review period by the due date specified in the Approved Baseline Schedule, the Contractor shall notify NCTA in writing that the NCTA response is due. NCTA's right to extend the review period is intended to allow flexibility in special circumstances where the nature of the Submittal requires more involved review, and not as a diminution of NCTA's obligation to promptly review Submittals. NCTA reserves the right to reject Submittals that are not complete or correct and to extend the review period accordingly.

Contractor shall not be held responsible for delays in schedule due to delays in Approvals and permits completely beyond the control of the Contractor. Notwithstanding the foregoing, Contractor shall make every effort to work around and mitigate the impact of delay.

2.5. Contract Termination

2.5.1. Termination General Requirements

1. The Contract issued for AVI Readers and Transponders will terminate at the end of the Contract Term set forth in **Section V, Terms and Conditions**, Section 1.2 Contract Term, inclusive of any Maintenance and or extension periods as noted in therein.
2. The NCTA may terminate the Contract), in whole or in part, for default subject to the default provisions set forth in this Section 2.5.1.
3. Any required Notices of termination made under this Contract shall be transmitted via U.S. Mail, Certified Return Receipt Requested, 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 parties may mutually terminate this Contract by written agreement at any time.
5. NCTA may terminate this Contract, in whole or in part for convenience, pursuant to the **Section V, Terms and Conditions**, Section 2.5.3.
6. NCTA will notify the Contractor) at least ninety (90) Days prior to the termination of the Contract in the absence of cause. This notification will require the Contractor to initiate actions to support a transition to NCTA or another third party. These actions shall include, but are not limited to:

- a. Acknowledgement of receipt of end of Contract notification, and
- b. Act in accordance with **Section V, Terms and Conditions**, Section 2.6 End of Contract and Transition.

2.5.2. Termination for Cause

1. In the event any Equipment, Hardware, Software, or Services furnished by the Contractor during 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 NCTA may cancel and procure the Work or Services from other sources; holding Contractor liable for any excess costs occasioned thereby. The rights and remedies of NCTA provided in this Section 2.5 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 NCTA for damages sustained by NCTA arising from Contractor's breach of this Contract; and the NCTA 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. Voluntary or involuntary bankruptcy or receivership by Contractor shall be cause for termination.
2. Cause shall mean a material breach of this Agreement by the Contractor. Without limiting the generality of the foregoing and in addition to those instances referred to elsewhere in this Agreement as a breach, a material breach shall include the following:
 - a. The Contractor has not acquired the necessary Certifications or Approvals as set forth in **Section III, Scope of Work and Requirements**;
 - b. The Contractor materially inhibited NCTA's collection of toll revenue;
 - c. The Contractor has not submitted acceptable Deliverables to NCTA on a timely basis;
 - d. The Software/Equipment proves incapable of meeting the functional and/or Performance Requirements set forth in **Section III, Scope of Work and Requirements**;
 - e. The Contractor refused or failed, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials to properly perform the Services required under this Agreement;
 - f. The Contractor failed to make prompt payment to Subcontractors or suppliers for materials or labor;
 - g. The Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received from this Agreement 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;
 - h. 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;

- i. The Contractor fails to maintain insurance policies and coverages or fails to provide proof of insurance or copies of insurance policies as required by this Agreement;
 - j. Any warranty, representation, certification, financial statement or other information made or furnished to induce NCTA to enter into this Agreement, or made or furnished, at any time, in or pursuant to the terms of this Agreement or otherwise by the Contractor, or by any person who guarantees or who is liable for any obligation of the Contractor under this Agreement, shall prove to have been false or misleading in any material respect when made;
 - k. Any intentional violation by the Contractor of State or Federal ethics provisions, or applicable laws, rules or regulations;
 - l. The Contractor has failed to obtain the Approval of NCTA where required by this Agreement;
 - m. The Contractor has failed in the representation of any warranties stated herein;
 - n. The Contractor makes a statement to any representative of NCTA indicating that the Contractor cannot or will not perform any one or more of its obligations under this Agreement;
 - o. The Contractor fails to remedy Pervasive Defects;
 - p. 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 this Agreement;
 - q. 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 this Agreement;
 - r. A pattern of repeated failures to meet the Performance Requirements as defined in **Section III, Scope of Work and Requirements**;
 - s. The suspension or revocation of any license, permit, or registration necessary for the performance of the Contractor's obligations under this Agreement, or
 - t. The default in the performance or observance of any of the Contractor's other obligations under this Agreement and the continuance thereof for a period of thirty (30) Calendar Days after Notice given to the Contractor by NCTA.
3. Cure/Warning Period. Prior to terminating the Contract for cause, the NCTA will issue a Notice of cure/warning to the Contractor thirty (30) Days prior to the termination date. The Notice will be transmitted via U.S. Mail Certified Return Receipt Requested or personal delivery to the Contractor's contract administrator, and the period of Notice for termination shall begin on the date the Return Receipt is signed and dated or upon personal delivery to the Contractor contract administrator. 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 NCTA, the Contract will remain in effect in accordance with the terms and conditions thereof.

4. Termination Without Notice of Cure/Warning. If the NCTA has issued two Notices of cure/warning to the Contractor, upon the issuance of the third or subsequent Notice the NCTA reserves the right to terminate the Contract without further Notice. The failure of the NCTA to exercise this right on any occasion will not be deemed a waiver of any future right.

2.5.3. Termination for Convenience Without Cause

- I. The NCTA may terminate the Contract without cause, in whole or in part, by giving ninety (90) 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. In the event the Contract is terminated for the convenience of the NCTA, the NCTA will pay for all Work performed and products delivered in conformance with the Contract up to the date of termination.

2.6. End of Contract and Transition

If this Agreement is not renewed at the end of this term, or is canceled prior to its expiration, for any reason, the Contractor shall cooperate with NCTA and must provide, all reasonable transition assistance requested by the NCTA, to allow for the expired or canceled portion of the Services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Services to the NCTA or its designees. Such End of Contract Transition will be deemed by the parties to be governed by the Terms and Conditions of this Agreement, (notwithstanding this expiration or cancellation) except for those Agreement terms or conditions that do not reasonably apply to such transition assistance. Costs for such End of Contract Transition are included in the current Contract and the Contractor shall perform such Work without additional compensation.

3. General Terms and Conditions

3.1. Standards

- I. Any Deliverables shall meet all applicable State and Federal requirements, such as State or Federal Regulation, and NC Chief Information Officer's (CIO) policy or regulation. The Contractor will provide and maintain a quality assurance system or program that includes any Deliverables and will tender or provide to the State only those Deliverables that have been inspected and found to conform to the requirements of this Contract. All Deliverables are subject to operation, certification, testing and inspection, and any accessibility requirements as required:
 - a. Site Preparation: The Contractor shall provide NCTA complete site requirement specifications for the Deliverables, if any. These specifications shall ensure that the Deliverables to be installed shall operate properly and efficiently within the site environment. The Contractor shall advise NCTA of any site requirements for any Deliverables required by NCTA's specifications. Any alterations or modification in site preparation which are directly attributable to incomplete or erroneous specifications provided by the Contractor and which would involve additional expenses to NCTA, shall be made at the expense of the Contractor.
 - b. Specifications: The apparent silence of the specifications as to any detail, or the apparent omission of detailed description concerning any point, shall be regarded as meaning that

only the best commercial practice is to prevail and only material and workmanship of the first quality may be used. Upon any Notice of noncompliance issued by NCTA, Contractor shall supply proof of compliance with the specifications within ten (10) Calendar Days. Contractor shall provide written Notice of its intent to deliver alternate or substitute products, goods or Deliverables. Alternate or substitute products, goods or Deliverables may be accepted or rejected at the sole discretion of NCTA; and any such alternates or substitutes shall be accompanied by Contractor's Certification and evidence satisfactory to NCTA that the function, characteristics, performance and endurance will be equal or superior to the original Deliverables specified. All alternates or substitutes are subject to Approval by NCTA.

3.2. Acceptance Criteria

- I. NCTA will have the obligation to notify Contractor, in writing ten (10) Calendar Days following provision, performance (under a provided milestone or otherwise as agreed) or delivery of any Services or other Deliverables described in the Contract that are not acceptable. The Notice shall specify in reasonable detail the reason(s) a given Deliverable is unacceptable. Acceptance by NCTA will not be unreasonably withheld; but may be conditioned or delayed as required for Installation and/or testing of Deliverables. Final Acceptance is expressly conditioned upon completion of any applicable inspection and testing procedures. Should a Deliverable fail to meet any specifications or Acceptance criteria, NCTA may exercise any and all rights hereunder. Deliverables discovered to be defective or failing to conform to the specifications may be rejected upon initial inspection or at any later time if the defects or errors contained in the Deliverables or non-compliance with the specifications were not reasonably ascertainable upon initial inspection. If Contractor fails to promptly cure or correct the defect or replace or re-perform the Deliverables, NCTA reserves the right to cancel the Contract, contract with a different contractor, and to invoice the original Contractor for any differential in price over the original Contract price.

3.3. Personnel

- I. Contractor shall not substitute Key Personnel assigned to this Contract without prior written Approval by NCTA. Any desired substitution shall be noticed to NCTA, accompanied by the names and references of Contractor's recommended substitute personnel. NCTA will approve or disapprove the requested substitution in a timely manner. NCTA may, in its sole discretion, terminate the services of any person providing Services under this Contract. Upon such termination, NCTA may request acceptable substitute personnel or terminate the Contract Services provided by such personnel.

3.4. Subcontracting

- I. 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 NCTA. Contractor shall provide NCTA with complete copies of any agreements made by and between 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 NCTA is an intended third-party beneficiary of the

contract; that the Subcontractor has no agreement with NCTA; and that NCTA will be indemnified by the Contractor for any claim presented by the Subcontractor. Notwithstanding any other term herein, Contractor shall timely exercise its contractual remedies against any non-performing Subcontractor and, when appropriate, substitute another Subcontractor.

3.5. Contractor’s Representation

1. 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. Contractor agrees that it will not enter into any agreement with a third-party that might abridge any rights of NCTA under this Contract. Contractor will serve as the prime Contractor under this Contract. Should NCTA approve any Subcontractor(s), 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. Third-party subcontractors, if approved, may serve as Subcontractors to Contractor. Contractor will retain executive representation for functional and technical expertise as needed in order to incorporate any work by third-party subcontractor(s).
2. Intellectual Property. 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. Contractor warrants that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Contractor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Contractor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any Contract, or order by any court of competent jurisdiction.

3.6. Software and Intellectual Property

3.6.1. Internal/Embedded Software License and Escrow

1. This section on Software licenses and Software in escrow applies to any source code developed or modified specifically for NCTA, application customizations and configuration settings, internal embedded Software, firmware and unless otherwise provided in this NCTA RFP, or in an attachment hereto.
2. Deliverables comprising goods, Equipment or products (Hardware) may contain Software for internal operation, or as 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.

3. Contractor grants an unrestricted license to NCTA to use any non-commercial Software provided under this Contract, for any reasonable purpose for NCTA toll operations. NCTA will have a worldwide, nonexclusive, non-sublicensable license to use such Software and/or Documentation for its internal use. NCTA may make and install copies of the Software to support any NCTA use on the NCTA system.
4. The Contractor shall provide to NCTA an executable copy of all Software developed for NCTA, to include source code Documentation and application information. Included with the provision of source code, the Contractor shall demonstrate to NCTA that the provided executables are the correct Software for the systems as delivered.

3.6.2. Software Maintenance/Support Services

1. This general requirement applies unless otherwise provided in NCTA's solicitation document or in an attachment hereto.
2. For the first year and all subsequent Contract years, Contractor agrees to provide the following Services for the current version and one previous version of any Software provided with the Deliverables, commencing upon Installation of the Deliverables or delivery of the Software:
 - a. **Error Correction.** Upon NCTA verification of an error or defect Software, the Contractor shall use reasonable efforts to correct or provide a working solution for the error or defect Contractor's expense. NCTA will comply with all reasonable instructions or requests of Contractor in attempts to correct an error or defect in the program. Contractor and the State 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 Maintenance Services under this paragraph.
 - b. Contractor shall notify NCTA of any material errors or defects in the Deliverables known, or made known to Contractor from any source during the Contract Term that could cause the production of inaccurate or otherwise materially incorrect, results. Contractor shall initiate actions as may be commercially necessary or proper to effect corrections of any such errors or defects.
 - c. **Updates.** Contractor shall provide to NCTA, at no additional charge, all new releases and bug fixes (collectively referred to as "Changes") for any Software Deliverable developed or published by 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.** Contractor shall provide NCTA 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 in accordance with Requirements of this RFP.

3.6.3. 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 NCTA, 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 NCTA a royalty-free, fully-paid, worldwide, perpetual, non-exclusive license to use such Contractor Technology in connection with the Deliverables for NCTA’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 NCTA to Contractor. NCTA hereby grants Contractor a royalty-free, fully-paid, worldwide, perpetual, non-exclusive license for Contractor’s internal use to non-confidential Deliverables originated and prepared by the Contractor for delivery to NCTA.
3. The Contractor, at its own expense, shall defend any action brought against the State 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 or Equipment, infringes a patent, or copyright or violates a trade secret in the United States. The Contractor shall pay those costs and damages finally awarded against the State 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 NCTA of any such claim; and,
 - b. That the Contractor shall have the sole control of the defense of any action on such claim and all negotiations for its settlement or compromise provided, however, that NCTA will have the option to participate in such action at its own expense.
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, or a trade secret in the United States, NCTA will permit the Contractor, at its option and expense, either to procure for NCTA 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 NCTA will be prevented by injunction, the Contractor agrees to take back such goods/Hardware or Software, and refund any sums NCTA has paid Contractor less any reasonable amount for use or damage and make every reasonable effort to assist NCTA in procuring substitute Deliverables. If, in the sole opinion of NCTA, the return of such infringing Deliverables makes the retention of other items of Deliverables acquired from the Contractor under this Contract impractical, NCTA will 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 NCTA has paid Contractor less any reasonable amount for use or damage.

5. Contractor will not be required to defend or indemnify NCTA if any claim by a third-party against NCTA for infringement or misappropriation (i) results from the State's alteration of any Contractor-branded product or Deliverable, or (ii) results from the continued use of the good(s) or Services and Deliverables after receiving Notice they infringe a trade secret of a third-party.
6. Nothing stated herein, however, shall affect Contractor's ownership in or rights to its preexisting intellectual property and proprietary rights.

3.6.4. Tolls Data Ownership and Security

1. All data, records, and operations history information shall remain property of the NCTA at all times during the life of the Contract and after Contract termination.
2. The Contractor shall ensure that no unauthorized personnel will have access to individual facilities, cabinets, data and records, payment histories, any personal information of existing or potential NCTA toll customers. Paper records shall be locked when not in use; systems shall have secure password and ID controls for any data access. Contractor shall comply with the North Carolina Statewide Information Security Manual. Currently found at <http://it.nc.gov/document/statewide-information-security-manual>, as may be amended from time to time throughout the term of the Contract.

3.7. Other General Provisions

3.7.1. Governmental Restrictions

1. In the event any restrictions are imposed by governmental requirements that necessitate 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 NCTA. NCTA reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract. NCTA may advise Contractor of any restrictions or changes in specifications required by North Carolina legislation, rule or regulatory authority that require compliance by the State. In such event, 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, NCTA may terminate this Contract and compensate Contractor for sums due under the Contract.

3.7.2. Prohibition Against Contingent Fees and Gratuities

1. Contractor warrants that it has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the State for the purpose of obtaining any contract or award issued by the State. Contractor further warrants that no commission or other payment was or will be received from or paid to any third-party contingent on the award of any contract by the State, except as shall be expressly communicated to NCTA in writing prior to Acceptance of the Contract or award in question. Each individual signing below warrants that he or she is duly authorized by their respective party to sign this Contract and bind the party to the terms and conditions of this Contract. Contractor and their authorized signatory further warrant that no officer or employee of the State has any direct or indirect financial or personal beneficial interest, in the subject matter of this Contract; obligation or contract for future award of compensation as an inducement or consideration for making this Contract. Subsequent

discovery by the State of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts. Violations of this provision may result in debarment of the bidder or Contractor as permitted by 9 NCAC 06B.1009 (f), 06B.1030, or other provision of law.

2. Gift Ban - By Executive Order 24, issued by Governor Perdue, and G.S. § 133-32, it is unlawful for any vendor or contractor (i.e., architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's cabinet agencies (i.e., Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who: (a) have a contract with a governmental agency; or (b) have performed under such a contract within the past year; or (c) anticipate bidding on such a contract in the future. For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. § 133-32.

3.7.3. Equal Employment Opportunity

1. Contractor shall comply with all Federal and State requirements concerning fair employment and employment of the disabled, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin or physical disability.

3.7.4. Inspection at Contractor's Site

1. NCTA reserves the right to inspect, during Contractor's regular business hours at a reasonable time, upon Notice of not less than two (2) weeks, and at its own expense, the prospective Deliverables comprising Equipment or other tangible goods, or the plant or other physical facilities of a prospective Contractor prior to Contract award, and during the Contract Term as necessary or proper to ensure conformance with the specifications/Requirements and their adequacy and suitability for the proper and effective performance of the Contract.

3.7.5. Advertising / Press Release

1. The Contractor absolutely shall not publicly disseminate any information concerning the Contract without prior written Approval from the State or its agent. For the purpose of this provision of the Contract, the agent is the NCTA contract administrator unless otherwise named in the solicitation documents.

3.7.6. Confidentiality

1. In accordance with 9 NCAC 06B.0103 and 06B.1001 and to promote maximum competition in the State competitive bidding process, the State may maintain the confidentiality of certain types of information described in G.S. §132-1 et. seq. Such information may include trade secrets defined by G.S. §66-152 and other information exempted from the Public Records Act pursuant to G.S. §132-1.2. Contractor may designate appropriate portions of its response as confidential, consistent with and to the extent permitted under the Statutes and Rules set forth above, by marking the top and bottom of pages containing confidential information with a legend in

boldface type “CONFIDENTIAL”. By so marking any page, the Contractor warrants that it has formed a good faith opinion, having received such necessary or proper review by counsel and other knowledgeable advisors that the portions marked confidential meet the requirements of the Rules and Statutes set forth above. **However, under no circumstances shall price information be designated as confidential.** The State may serve as custodian of Contractor’s confidential information and not as an arbiter of claims against Contractor’s assertion of confidentiality. If an action is brought pursuant to G.S. §132-9 to compel the State to disclose information marked confidential, the Contractor agrees that it will intervene in the action through its counsel and participate in defending the State, including any public official(s) or public employee(s). The Contractor agrees that it shall hold the State and any official(s) and individual(s) harmless from any and all damages, costs, and attorneys’ fees awarded against the State in the action. The State agrees to promptly notify the Contractor in writing of any action seeking to compel the disclosure of Contractor’s confidential information. The State shall have the right, at its option and expense, to participate in the defense of the action through its counsel. The State shall have no liability to Contractor with respect to the disclosure of Contractor’s confidential information ordered by a court of competent jurisdiction pursuant to G.S. §132-9 or other applicable law.

- 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 State or NCTA during performance of any contractual obligation from loss, destruction or erasure.
- b. 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 North Carolina. Contractor will, upon request of the State, verify and produce true copies of any such agreements. Production of such agreements by Contractor may be made subject to applicable confidentiality, non-disclosure or privacy laws; provided that Contractor produces satisfactory evidence supporting exclusion of such agreements from disclosure under the N.C. Public Records laws in G.S. §132-1 et. seq. The State may, in its sole discretion, provide a non-disclosure and confidentiality agreement satisfactory to the State for Contractor’s execution. The State 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 N.C. 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 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 State.

- d. Contractor shall protect the confidentiality of all information, data, instruments, studies, reports, records and other materials provided to it by NCTA or maintained or created in accordance with this Contract. No such information, data, instruments, studies, reports, records and other materials in the possession of Contractor shall be disclosed in any form without the prior written consent of the NCTA. 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 State or are not proprietary to the Contractor are the property of the State of North Carolina and must be kept confidential or returned to the State, or destroyed. Proprietary Contractor materials shall be identified to the State 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 State.

3.7.7. Deliverables

- I. Deliverables, as used herein, shall comprise all Hardware, Contractor Services, professional services, Software and provided modifications to the Software, and incidental materials, including any goods, Software or Services access license, data, reports and Documentation provided or created during the performance or provision of Services hereunder. Hardware, custom Software first requested and developed for the State and other Deliverables not subject to owner licensing or leasing are the property of the State of North Carolina. Proprietary Contractor materials licensed to the State shall be identified to the State by Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Deliverables include "Work Product" and means any expression of Licensor's findings, analyses, conclusions, opinions, recommendations, ideas, techniques, know-how, Designs, programs, enhancements, and other technical information; but not source and object code or Software.

3.7.8. Late Delivery, Back Order

- I. Contractor shall advise NCTA immediately upon determining that any Deliverable will not, or may not, be delivered at the time or place specified. Together with such Notice, Contractor shall state the projected delivery time and date. In the event the delay projected by Contractor is unsatisfactory, NCTA will so advise Contractor and may proceed to procure substitute Deliverables or Services.

3.7.9. Assignment

- I. Contractor may not assign this Contract or its obligations hereunder except as permitted by 09 NCAC 06B.1003 and this paragraph. Contractor shall provide reasonable Notice of not less than thirty (30) Days prior to any consolidation, acquisition, or merger. Any assignee shall affirm this Contract atoning to the terms and conditions agreed, and that Contractor shall affirm that the assignee is fully capable of performing all obligations of Contractor under this Contract. An assignment may be made, if at all, in writing by the Contractor, Assignee and the State setting forth the foregoing obligation of Contractor and Assignee.

3.7.10. Insurance Coverage

1. During the term of the Contract, the Contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the coverage and limits, as set forth in **Section I, Administrative**, Section 4.2, Insurance Requirements.

3.7.11. 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) Days after the receipt of the Notice by the receiving Project Manager, the two Project Managers shall meet in NCTA's offices to attempt to resolve the dispute. If the Project Managers cannot resolve the dispute then, within fourteen (14) Days after the date of written Notice by either Project Manager to the Executive Director of NCTA and the Project Principal, the Executive Director of NCTA and the Project Principal shall meet in NCTA's offices to attempt to resolve the dispute. If the Executive Director of NCTA 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.

3.7.12. Default

1. In the event any Deliverable furnished by the Contractor during performance of any Contract Term fails to conform to any material requirement of the Contract specifications, Notice of the failure is provided by NCTA and the failure is not cured within ten (10) Days, or Contractor fails to meet the requirements of paragraph 3.2 Acceptance Criteria herein, NCTA 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 provided in paragraphs 3.3.7.15 and 3.3.7.16 and the obligation to informally resolve disputes as provided in these Terms and Conditions. Default may be cause for debarment as provided in 09 NCAC 06B.1206. NCTA reserves the right to require performance guaranties pursuant to 09 NCAC 06B.1207 from the Contractor without expense to the State. The rights and remedies of NCTA provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. NCTA allows for ten (10) Days to rectify a problem and thirty (30) Days to cure a termination.
2. If Contractor fails to deliver Deliverables within the time required by this Contract, NCTA may provide written Notice of said failure to Contractor, and by such Notice require payment of a penalty.
3. 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. Should NCTA fail to perform any of its obligations upon which Contractor's performance is conditioned, Contractor shall not be in default for any delay, cost increase or other consequences due to NCTA's failure. Any deadline that is affected by any such failure in

assumptions or performance by NCTA will be extended by an amount of time reasonably necessary to compensate for the effect of such failure.

5. Contractor shall provide a Plan to cure any default if requested by NCTA. The Plan shall state the nature of the default, the time required for cure, any mitigating factors causing or tending to cause the default, and such other information as the Contractor may deem necessary or proper to provide.

3.7.13. Waiver of Default

1. Waiver by either party of any default or breach by the other party 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, unless so stated in a writing and signed by authorized representatives of NCTA and the Contractor, and made as an Amendment in accordance with the terms of this Contract.

3.7.14. Limitation of Contractor's Liability

1. Where Deliverables are under NCTA's exclusive management and control, the Contractor shall not be liable for direct damages caused by NCTA's failure to fulfill any responsibilities of assuring the proper use, management and supervision of the Deliverables and programs, audit controls, operating methods, office procedures, or for establishing all proper checkpoints necessary for NCTA's intended use of the Deliverables.
2. The Contractor's liability for damages to NCTA for any cause whatsoever, and regardless of the form of action, whether in contract or in tort, shall be limited to two times the value of the Contract.
3. The foregoing limitation of liability shall not apply to the payment of costs and damage awards referred to in the paragraph entitled "Patent, Copyright, and Trade Secret Protection", to claims covered by other specific provisions calling for liquidated damages or specifying a different limit of liability, or to claims for injury to persons or damage to property caused by Contractor's negligence or willful or wanton conduct. This limitation of liability does not apply to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

3.7.15. 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 NCTA, employees of NCTA, persons designated by NCTA for training, or person(s) other than agents or employees of the Contractor, designated by NCTA 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 NCTA'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 NCTA and the State 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, firm 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. 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.

3.7.16. General Indemnity

- I. The Contractor shall hold and save NCTA, its officers, agents and employees, harmless from liability of any kind, including all claims and losses, with the exception of consequential damages, as normally construed, accruing or resulting to any other person, firm or corporation furnishing or supplying Work, Services, materials or supplies in connection with the performance of this Contract. The foregoing indemnification and defense by the Contractor shall be conditioned upon the following:
 - a. NCTA will give Contractor written Notice within thirty (30) Days after it has actual knowledge of any such claim(s) or action(s) filed; and
 - b. The Contractor shall have the sole control of the defense of any such claim(s) or action(s) filed and of all negotiations relating to settlement or compromise thereof, provided, however, that NCTA will have the option to participate at their own expense in the defense of such claim(s) or action(s) filed.

3.7.17. Changes

- I. This Contract is awarded subject to shipment of quantities, qualities, and prices indicated in the Contract, and all conditions and instructions of the Contract or Proposal on which it is based. Any changes made to this Contract or purchase order proposed by the Contractor are hereby rejected unless accepted in writing by NCTA. NCTA will not be responsible for Deliverables or Services delivered other than those specified in the Contract or the Proposal on which it is based.

3.7.18. Time is of the Essence

- I. Time is of the essence in the performance of this Contract. Contractor and NCTA will mutually develop and agree to a schedule of implementation, testing, Maintenance, etc. Contractor and Subcontractors will be required to adhere to the Approved schedule.

3.7.19. Date and Time Warranty

- I. 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. This warranty shall survive termination or expiration of the Contract.

3.7.20. Independent Contractors

- I. Contractor and its employees, officers and executives, and Subcontractors, if any, shall be independent Contractors and not employees or agents of the State. This Contract shall not operate as a joint venture, partnership, trust, authority or any other business relationship.

3.7.21. Transportation

- I. Transportation of Deliverables shall be FOB Destination unless otherwise specified in this RFP. Freight, handling, hazardous material charges, and distribution and Installation charges shall be included in the total price of each item. Any additional charges shall not be honored for payment unless authorized in writing by NCTA. In cases where parties, other than the Contractor ship materials against this Contract, the shipper shall be instructed to show the purchase order number on all packages and shipping manifests to ensure proper identification and payment of invoices. A complete packing list shall accompany each shipment.

3.7.22. Notices

- I. Any Notices required under this Contract should be delivered to the Contractor or NCTA. Unless otherwise specified in the Solicitation Documents, any Notices shall be delivered in writing by U.S. Mail, Commercial Courier or by hand.

3.7.23. Titles and Headings

- I. Titles and Headings in this Contract are used for convenience only and do not define, limit or proscribe the language of terms identified by such Titles and Headings.

3.7.24. Amendment

- I. This Contract may not be amended orally or by performance. Any Amendment must be made in written form and signed by duly authorized representatives of NCTA and Contractor in conformance with Contract requirements.

3.7.25. Taxes

- I. The State of North Carolina is exempt from Federal excise taxes and no payment will be made for any personal property taxes levied on the Contractor or for any taxes levied on employee wages. Agencies of the State may have additional exemptions or exclusions for Federal or State taxes. Evidence of such additional exemptions or exclusions may be provided to Contractor by Agencies, as applicable, during the term of this Contract. Applicable State or local sales taxes shall be invoiced as a separate item and not included in the Price Proposal.

3.7.26. Governing Laws, Jurisdiction, and Venue

- I. This Contract is made under and shall be governed by and construed in accordance with the laws of the State of North Carolina. The place of this Contract or purchase order, its situs and forum, shall be Wake County, North Carolina, where all matters, whether sounding in contract or in tort, relating to its validity, construction, interpretation and enforcement shall be determined. Contractor agrees and submits, solely for matters relating to this Contract, to the jurisdiction of the courts of the State of North Carolina, and stipulates that Wake County shall be the proper venue for all matters.
2. Except to the extent the provisions of the Contract are clearly inconsistent therewith, the applicable provisions of the Uniform Commercial Code as modified and adopted in North

Carolina shall govern this Contract. To the extent the Contract entails both the supply of "goods" and "Services," such shall be deemed "goods" within the meaning of the Uniform Commercial Code, except when deeming such Services as "goods" would result in a clearly unreasonable interpretation.

3.7.27. Force Majeure

- I. Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Force Majeure events shall not otherwise limit NCTA's rights to enforce contracts.

3.7.28. Compliance with Laws

- I. The Contractor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

3.7.29. Severability

- I. 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, requirement, 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.

3.7.30. Federal Intellectual Property Bankruptcy Protection Act

- I. The Parties agree that NCTA will be entitled to all rights and benefits of the Federal Intellectual Property Bankruptcy Protection Act, Public Law 100-506, codified at 11 U.S.C. 365(n) and any amendments thereto.

3.7.31. Iran Divestment Act Certification

- I. The Contractor certifies that, as of the date listed below, it is not on the Final Divestment List as created by the State Treasurer pursuant to G.S. § 147-86.58 et seq. In compliance with the requirements of the Iran Divestment Act and G.S. §147-86.60 et seq, Contractor shall not utilize in the performance of the Contract any Subcontractor that is identified on the Final Divestment List. The Final Divestment List can be found on the State Treasurer's website at the address www.nctreasurer.com/Iran and should be updated every one-hundred and eighty (180) Days.

3.7.32. Availability of Funds

- I. Any and all payments to Contractor are expressly contingent upon and subject to the appropriation, allocation and availability of funds to NCTA for the purposes set forth in this Contract. If this Contract is funded in whole or in part by Federal funds, the Agency's

performance and payment shall be subject to and contingent upon the continuing availability of said Federal funds for the purposes of the Contract. If the term of this Contract extends into fiscal years subsequent to that in which it is approved, such continuation of the Contract is expressly contingent upon the appropriation, allocation and availability of funds by the N.C. Legislature for the purposes set forth in the Contract. If funds to effect payment are not available, the Agency will provide written notification to Contractor. If the Contract is terminated under this paragraph, Contractor agrees to take back any affected Deliverables and Software not yet delivered under this Contract, terminate any Services supplied to the Agency under this Contract, and relieve NCTA of any further obligation thereof. The State shall remit payment for Deliverables and Services accepted prior to the date of the aforesaid Notice in conformance with the payment terms.

Section V
Terms and Conditions
Category B – TDM Transponders and
Category C – Local Transponders

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I. Contract Terms and Conditions

I.1. Payment Terms and Conditions

1. Payment terms are net thirty (30) Days after receipt of a correct invoice. NCTA is responsible for all payments under the Contract. A “correct” invoice is one that contains an accurate description of the amounts due, is in the Approved format, has no errors, and includes all required supporting information including payment Approvals.
2. The Contractor shall invoice NCTA based on milestone payments set forth in **Exhibit B, Payment Schedule** and where quantities or materials are ordered, based on the prices provided in the **Approved Contractor Price Proposal Exhibit D-7, Forms**.
3. NCTA may exercise any and all rights of Set Off as permitted in Chapter 105A-1 et. seq. of the N.C. General Statutes and applicable Administrative Rules. Upon Contractor’s written request of not less than thirty (30) Days and Approval by NCTA, NCTA may:
 - a. Forward the Contractor’s payment check(s) or other mutually acceptable means directly to any person or entity designated by the Contractor, or
 - b. Include any person or entity designated in writing by Contractor as a joint payee on the Contractor’s payment check(s), however
 - c. In no event shall such Approval and action obligate NCTA to anyone other than the Contractor and the Contractor shall remain responsible for fulfillment of all Contract obligations.

I.2. Contract Term

The term of the Contract will commence on the Effective Date and will have a base term of five (5) years and an Optional Extension Phase. The Phases of the Project are as follows:

- Implementation Phase – The Implementation Phase shall begin on the Effective Date and shall continue until CSC Contractor training is Approved.
- Maintenance Phase – The Maintenance Phase shall begin upon completion of the Implementation Phase and shall continue through the end of the base Contract Term for a period of up to five (5) years.
- Options to Extend – The Optional Extension Phase includes two (2) three (3)-year optional Maintenance extensions to be executed at the sole discretion of NCTA, with the first extension commencing upon the end of the base Contract Term.

Any additions to **Section III, Scope of Work and Requirements** will not change the overall duration of the base term and options to extend, as described above.

NCTA will fix the Effective Date after the Contract has been fully executed by the Contractor and by NCTA and all Approvals required by NCTA contracting procedures have been obtained.

1.3. Damages

1.3.1. Liquidated Damages

1. Liquidated damages may be assessed for the Contractor's failure to meet its Guaranteed Delivery Lead Times for Equipment as further described in **Section III, Scope of Work and Requirements**, Sections 3.7, 3.9, 3.10, 4.7, 4.9, or 4.10, as applicable.
2. The parties agree that actual damages to NCTA as a result of the Contractor's failure to provide the promised Services would be difficult or impossible to determine with accuracy. The parties agree that liquidated damages as set out herein shall be a reasonable approximation of the damages that shall be suffered by NCTA as a result of the Contractor's failure to provide the promised Services. Accordingly, in the event of such damages, at the written direction of NCTA, the Contractor shall pay indicated amounts as liquidated damages, and not as a penalty.
3. Amounts due to NCTA as liquidated damages, if not paid by the Contractor within fifteen (15) Days of notification of assessment, may be deducted by NCTA from any money payable to the Contractor pursuant to this Agreement. NCTA will notify the Contractor in writing of any claim for liquidated damages pursuant to this paragraph on or before the date NCTA deducts such sums from money payable to the Contractor. No delay by NCTA in assessing or collecting liquidated damages shall be construed a waiver of such rights.
4. If the Authority elects not to impose liquidated damages in a particular instance, said decision shall not be construed as a waiver of the Authority's right to pursue future assessments for failure to meet project milestones or Performance Requirements and associated liquidated damages; nor construed to limit any additional remedies available to the Authority.
5. Payment adjustments will be assessed not as a penalty, but as liquidated damages for not meeting the Maintenance Phase Performance Requirements set forth in **Section III, Scope of Work and Requirements**, Section 3.11 or 4.11 as applicable. If in the performance of the Services the Contractor does not meet or exceed the Performance Requirements identified therein, NCTA will reduce the amount it would otherwise pay to the Contractor for such Services subject to the reduction amounts and limits set forth therein.
6. NCTA may recover any and all liquidated damages by deducting the amount thereof from any monies due or that may become due from the Contractor, notwithstanding any liens, Notices of liens or actions of Subcontractors, and if said monies are insufficient to cover said damages, then the Contractor or the surety shall promptly pay any remaining amounts due on demand.
7. In the event that liquidated damages are disallowed for any reason whatsoever, NCTA will be entitled its actual damages including any and all consequential or incidental damages.
8. Nothing herein contained shall be construed as limiting NCTA's rights to recover from the Contractor any and all other amounts due or that may become due to NCTA, or any and all costs and expenses sustained by NCTA for improper performance hereunder, or for breach or breaches in any other respect including, but not limited to, defective workmanship or materials.

1.3.2. Actual Damages

1. The Contractor acknowledges that its performance after Go-Live is critical to the operation of NCTA in so much as the Services to be provided pursuant to this Agreement directly involve

NCTA's revenue and customer service. The Contractor agrees that the actual damages set forth in this Section 1.3.2 are fair and reasonable and shall be incurred by the Contractor in the event of unsatisfactory performance.

2. The Contractor shall reimburse NCTA for any revenue which NCTA identifies as having been lost due to the fault of the Contractor and which cannot be recovered. NCTA may choose, in its sole discretion, to recover such lost revenue from the Contractor by deducting such amounts from payments otherwise due and owing from NCTA to the Contractor. Lost revenue includes, but is not limited to, such events as lost transactions and lost data that are not able to be collected upon.
3. The Contractor shall be responsible for any other costs incurred as a result of its improper handling of these Services, including, repair and replacement costs and special mailings to customers to notify them of a mistake in their monthly statements due to AVI transaction gathering and processing failures and inaccuracies directly related to the non-performance of the Transponder.

1.3.3. Risk of Loss

The Contractor assumes the following distinct and several risks without limitation, whether they arise from acts or omissions (whether negligent or not) of the Contractor or of any of its Subcontractors and suppliers, excepting those risks which arise from negligent acts or omissions of the NCTA:

1. The risk of loss or damage to any property of the NCTA arising out of or alleged to have arisen out of or in connection with the performance of Services pursuant to this Agreement; 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 this Agreement.
2. The risk of loss for all Equipment until delivered by the Contractor. Title and ownership of the Equipment (other than the Software), and the right to possess and use the Software pursuant to the rights and licenses granted to the NCTA under this Agreement, shall pass to the NCTA upon delivery, subject, in the case of such title and ownership, to the Equipment conforming to the Requirements set forth in **Section III, Scope of Work and Requirements**.

1.4. Audits and Financial Reporting

~~1.4.1.1.~~ 1.4.1. Audit and Examination of Records

1. Definition of Records
 - a. Contract Records shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the Contractor's performance of the Contract determined necessary or desirable by the NCTA for any purpose.
 - b. Proposal Records shall include, but not be limited to, any material relating to the determination or application of Equipment rates, home and field overhead rates, related

time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from Subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by the Contractor in determining a price.

2. Pursuant to G.S. 147-64.7, NCTA, the State Auditor, appropriate Federal officials, and their respective authorized employees or agents are authorized to examine all books, records, and accounts of the Contractor insofar as they relate to transactions with any department, board, officer, commission, institution, or other authority of the State of North Carolina pursuant to the performance of this Contract or to costs charged to this Contract. Additional audit or reporting Requirements may be required by any authority, if in NCTA's opinion, such requirement is imposed by Federal or State law or regulation. The State Auditor and internal auditors of NCTA may audit the records of the Contractor during and after the term of the Contract to verify accounts and data affecting fees and performance.
3. NCTA reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the Contractor or any Subcontractor. By submitting a response to the RFP, Contractor or any Subcontractor submits to and agrees to comply with the provisions of this Section I.4.
4. If NCTA requests access to or review of any Contract Documents or Proposal Records and Contractor refuses such access or review, Contractor shall be in default under its Contract with NCTA, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension, termination or disqualification of Contractor. These provisions shall not be limited in any manner by the existence of any Contractor claims or pending litigation relating to the Contract. Disqualification or suspension of the Contractor for failure to comply with this section shall also preclude the Contractor from acting in the future as a subcontractor of another contractor doing work for NCTA during the period of disqualification or suspension. Disqualification shall mean the Contractor is not eligible for and shall be precluded from doing future work for NCTA until reinstated by NCTA.
5. Final Audit for Project Closeout: The Contractor shall permit NCTA, at NCTA'S option, to perform or have performed an audit of the records of the Contractor and any or all Subcontractors to support the compensation paid the Contractor. The audit will be performed as soon as practical after completion and Acceptance of the contracted Services. In the event funds paid to the Contractor under the Contract are subsequently determined to have been inadvertently paid by NCTA because of accounting errors or charges not in conformity with the Contract, the Contractor agrees that such amounts are due to NCTA upon demand. Final payment to the Contractor shall be adjusted for audit results.
6. Contractor shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of three (3) years after the later of: (i) Final Acceptance of the Project by NCTA, (ii) resolution of any and all claims regarding the Contract, or (iii) expiration of the Proposal Records and Contract Records' status as public records.

I.5. Contractor Cooperation

During the course of this Agreement, NCTA may undertake or award other agreements for additional work, including but not limited to separate agreements with different contractors, including but not limited to civil construction work on the roadways and direct support to RTCS integrators, NCTA Back Office System and Operations contractors, and AVI Reader contractor and associated work. It is critical that close coordination with interfacing contractors occurs throughout the term of this Agreement. Contractor shall fully cooperate with NCTA and the parties to all other contracts and carefully integrate and schedule its own work with said parties.

NCTA will expect all contractors to comply with all technical specifications and other terms and conditions applicable to the contract(s) at all times during the performance of the contract(s). In the event of a dispute between contractors, clarifications may be sought from NCTA; provided Contract Terms, conditions or obligations shall remain in effect, excepting in instances wherein a Change Order, Extra Work, or other Contract modification is duly executed in writing in accordance with this **Section V, Terms and Conditions**; however contractors shall engage in all efforts to resolve disputes prior to participation of NCTA and further, such participation by NCTA does not imply or represent a NCTA responsibility for resolution or payment of claims that arise out of a dispute between two contractors.

I.6. Warranties

I.6.1. Warranty during Maintenance Phase

A full warranty shall be provided for all Transponders provided by the Contractor that is concurrent with the Transponder Lifetime requirements of **Section III, Scope of Work and Requirements**. All warranty Work shall also be at Contractor's sole expense. Such Work shall be at no charge to NCTA and shall include replacement of any unit of Equipment, Hardware or Software, or part or component thereof, which NCTA deems defective or insufficient, or which NCTA deems to have failed to comply with **Section III, Scope of Work and Requirements**. All transportation, labor and fees associated with restocking defective Equipment or Hardware shall also be the responsibility of the Contractor. All defective Equipment replaced by the Contractor will become the property of the Contractor. All defective Equipment replaced by the Contractor will become the property of the Contractor.

The provisions of this Section 1.6.1 shall survive the expiration, cancellation, or termination of this Agreement.

I.6.2. Software Warranties

- I. The Software needed to operate the Handheld Readers and Transponder Programmers shall be as set forth in **Section III, Scope of Work and Requirements**. NCTA's Acceptance of the Software shall occur in accordance with the provisions of **Section III, Scope of Work and Requirements**. The Contractor warrants that, upon NCTA's Acceptance of and for the Contract Term, including any extensions thereof, the Software and each module or component and function thereof shall:
 - a. Be free from defects in materials and workmanship under normal use;
 - 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 readers by ncta or its designees, or permit access to ncta's computing systems without its knowledge or contrary to its system connectivity policies or procedures;
- c. Not interfere with toll collection;
 - d. Operate and function fully, properly and in conformity with the warranties in this agreement;
 - e. Meet the requirements set forth in sub-paragraphs 2 through 12 of this Section 1.6.2.
2. The Contractor represents and warrants that upon NCTA's Acceptance of and for the Contract Term, including any extensions, the Software will:
 - a. Operate fully and correctly in the operating environment identified in **Section III, Scope of Work and Requirements**, 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;
 - b. Be fully compatible and interface completely and effectively with the Equipment, including other Software programs provided to NCTA hereunder, such that the other Software and Equipment combined will perform and continuously attain the standards identified in **Section III, Scope of Work and Requirements**; and
 - c. Accurately direct the operation of the Handheld Readers and Transponder Programmers, as required by **Section III, 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 Handheld Readers and Transponder Programmers shall perform in accordance with this Agreement, the Scope of Work and Requirements, 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 **Section III, Scope of Work and Requirements**.
 5. The Contractor shall provide NCTA the most current release of all Software available on the date of delivery to maintain optimum performance pursuant to this Agreement.
 6. The Contractor shall promptly provide Notice to NCTA 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 NCTA 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 NCTA, and the cost of such Hardware will be borne solely by the Contractor.

7. No Updates or enhancements shall adversely affect the performance of the Handheld Readers or Transponder Programmers, in whole or in part, or result in any failure to meet any Requirements of **Section III, Scope of Work and Requirements**.
8. The Contractor shall obtain Maintenance agreements for any applicable third-party Software in accordance with **Section V, Terms and Conditions**, Section 1.6.3 Third-Party Warranties. The Contractor shall secure such Maintenance agreements for the same duration and upon the same terms and conditions as the Maintenance provisions between the Contractor and NCTA. All third-party contracts and licenses shall be assignable to NCTA.
9. In the event that the Software does not satisfy the conditions of performance set forth in **Section III, Scope of Work and Requirements**, the Contractor shall promptly repair or replace such Software at the Contractor's sole cost and expense or, if expressly agreed to in writing by NCTA, provide different Equipment or Software, and perform Services required to attain the Performance Requirements set forth in **Section III, Scope of Work and Requirements**.
10. In the event of any defect in the media upon which any tangible portions of the Software are provided, the Contractor shall provide NCTA with a new copy of the Software.
11. Without releasing the Contractor from its obligations for warranty (during an applicable warranty period), support or Maintenance of the Software, NCTA will 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 any Updates or enhancements if, in NCTA'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 NCTA that occurs after the Contractor has both (i) offered, by written Notice to NCTA, a suitable correction (by way of Update, enhancement or otherwise) of such error or defect and (ii) provided NCTA 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 Interoperability, functionality or quality of the Readers.
12. All provisions of this Section 1.6.2 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 this Agreement.

1.6.3. Third-Party Warranties

In addition to the foregoing warranties, the Contractor shall assign to NCTA, and NCTA will have the benefit of, any and all Subcontractors' and suppliers' warranties and representations with respect to the Handheld Readers and Transponder Programmers 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 NCTA, (b) agree to the enforcement of such warranties and representations by NCTA in its own name, and (c) furnish to NCTA the warranties set forth herein. At NCTA's request, the Contractor shall provide supporting Documentation which confirms that these warranties are enforceable in NCTA's name.

1.6.4. 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 NCTA's Requirements as set forth in **Section III, Scope of Work and Requirements**. In the event NCTA determines that any Services do not conform to the foregoing warranty, NCTA will be entitled to elect one of the following remedies: (i) re-performance of the Services by the Contractor until NCTA deems them to be in conformity with the warranty in this Section 1.6.4, at no charge to NCTA; (ii) refund from the Contractor for all fees paid in connection with the Services, which NCTA deems were not as warranted, subject to the provisions of **Section V, Terms and Conditions**, Section 1.3.2 Liquidated Damages 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 NCTA's costs and expenses incurred in having the Services re-performed by NCTA or someone other than the Contractor. Notwithstanding the foregoing, nothing in this Section 1.6.4 shall be construed to limit NCTA's rights pursuant to **Section V, Terms and Conditions**, Section 2.5.2 Termination for Cause.

1.6.5. Additional Warranties

The Contractor warrants the following:

1. All guarantees and warranties made herein are fully enforceable by NCTA acting in its own name.
2. All provided Equipment is new and unused.
3. Warranties provided in this Section 1.6 are in addition to warranties set forth in the General Conditions.

1.6.6. Excessive Failures

The Contractor agrees to promptly remedy, at no cost to NCTA, any defects determined by NCTA to be Excessive, such that if NCTA determines that any Equipment, component, or sub-component is experiencing continued or repetitive failure that requires constant replacement or repair, the Contractor agrees that an "Excessive Failure" shall be deemed to be present in such affected types of Equipment. The Contractor shall perform an investigation of the issues and prepare a report that includes a reason for the failure and the Plan for remedy. Such correction shall be in a manner satisfactory to NCTA and that permanently addresses the problem and corrects the failure so that such failure does not continue to occur. In the event of an Excessive Failure of any of the Transponders, Contractor shall be liable for all costs incurred by NCTA, including, but not limited to costs to notify the public and end users, labor, and material costs. Further, for purpose of this Contract, "Excessive Failure" is defined as a defect in function, labor or materials that is present in ten percent (10%) or more of any Equipment, Hardware, or any component thereof, during the applicable warranty period. By way of example and not limitation, if ten percent (10%) of the Transponders activated and assigned to NCTA customer accounts are deemed defective, then Contractor would be responsible for the cost of the Transponder replacement and for NCTA's costs such as notifying NCTA's customers; establishing and operating locations where NCTA customers could swap out their defective Transponders for a working Transponder; and NCTA administrative costs.

The obligations set forth in this Section 1.6 shall be in addition to any warranty obligations set forth in this Agreement. The provisions of this Section 1.6 shall survive the expiration or earlier termination of this Agreement.

1.6.7. General Guaranty

Neither Acceptance of the Transponders, Handheld Readers, Transponder Programmers and Services or payment therefor, nor any provision in this Agreement, nor partial or entire use of the Transponders, Handheld Readers, Transponder Programmers and Services by NCTA will constitute an Acceptance of Services not performed in accordance with this Agreement or relieve the Contractor of liability for any express or implied warranties or responsibility for faulty materials or workmanship.

This includes any Transponders, Accessories, processes, methods, applications, technical data specifications and other Documentation (including those provided by the Contractor, any third-party or currently used by NCTA) comprised or practiced by the Equipment or that are necessary or useful to operate the Readers.

1.7. Authority of the Project Manager

1. The Contractor hereby authorizes the NCTA Project Manager to 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, this Agreement including, without limitation: questions as to the value, acceptability and of the Services; questions as to either party's fulfillment of its obligations under this Agreement; negligence, fraud or misrepresentation before or subsequent to execution of this Agreement; questions as to the interpretation of **Section III, Scope of Work and Requirements**; and claims for damages, compensation and losses.
2. The Project Manager shall act as the designated representative of NCTA in all matters relating to the Project.
3. The Project Manager may give orders to the Contractor to do Work that the Project Manager determines to be necessary for the Contractor to fulfill the Contractor's obligations under this Agreement.
4. If requested by the Contractor, the Project Manager will promptly provide appropriate explanations and reasons for his determinations and orders hereunder.
5. The Contractor shall be bound by all determinations or orders and shall promptly obey and follow every order of the Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the Project Manager's determination or order. Orders shall be in writing, unless not practicable, in which event any oral order must be confirmed in writing by the Project Manager as soon thereafter as practicable.

1.8. Key Team Personnel

The Contractor has designated an individual Project Principal, identified in the Proposal, who is an officer authorized to sign the Agreement and any Amendments to the Agreement and to speak for and make commitments on behalf of the Contractor. The Contractor shall also designate a project manager ("Contractor Project Manager"), identified in the Proposal, who shall act as the primary point of contact

in all matters on behalf of Contractor. The Project Principal, Contractor Project Manager, and Technical Advisor shall be designated as Key Team Personnel.

The Contractor Project Manager shall assign other individuals as contacts with regard to specific functional areas of the Work, subject to the Approval of NCTA. NCTA will have input into determining who will be assigned as Contractor Project Manager for the Contractor and the Contractor may not change the Contractor Project Manager without consulting with NCTA and obtaining Approval from NCTA.

If NCTA becomes dissatisfied with the performance of any person designated as Key Team Personnel performing under this Agreement, NCTA will notify 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 NCTA or present to NCTA a Plan for correcting the incumbent's performance deficiencies within a period of twenty (20) Business Days thereafter. If either NCTA rejects the Plan presented by Contractor or the incumbent's performance deficiencies are not corrected to NCTA's satisfaction within the twenty (20) Business Day plan period Approved by NCTA, then the Contractor shall, within ten (10) Business Days after rejection of the Plan or expiration of the twenty (20) Business Day plan period, propose to NCTA a replacement person for evaluation and Approval by NCTA.

I.9. Phases of the Project and Acceptance

I.9.1. Phases of the Project

Contractor shall perform all planning, design and Software development, testing and support Services and complete and have Approval for all corresponding Submittals, Deliverables and milestones required in **Section III, Scope of Work and Requirements** for the Implementation Phase. The Implementation Phase shall begin at Contract Effective Date and shall be complete upon Approval of CSC Contractor training, as further defined in this Agreement and in **Section III, Scope of Work and Requirements**.

The Contractor's Maintenance Phase responsibilities shall begin upon completion of the Implementation Phase, and shall continue until the expiration of the Contract Term, including any Contract renewals or extensions thereof. Commencement of this phase shall not relieve the Contractor of any of its responsibilities to complete all Requirements set forth in **Section III, Scope of Work and Requirements** of the Implementation Phase and does not waive any of the rights of NCTA in this regard.

I.9.2. Acceptance of Project

Project Acceptance will be considered to have occurred when NCTA, in its sole discretion, determines that Contractor has complied with all of the completion Requirements set forth for the Project for both the Implementation and Maintenance Phases, pursuant to **Section V, Terms and Conditions**, Sections 1.9.3 and 1.9.4 below.

NCTA's beneficial use of the Project Deliverables during any phase prior to Project Acceptance shall not constitute Acceptance of any Deliverable, nor shall such use give rise to equitable claim for adjustment.

I.9.3. Project Acceptance of All Phases

Project Acceptance shall mean the Final Acceptance for all Phases, including both Implementation and

Maintenance, and shall be deemed to have occurred when all of the following conditions have been met:

1. The Contractor shall provide a Project Acceptance Letter Certification to close out the Agreement. The Certification shall include but not be limited to: total costs associated with the Agreement, date of Work completion and any additional required information contained in item 2 through 8 below, if applicable;
2. The Implementation Phase has been Approved and closed out in accordance with **Section III, Scope of Work and Requirements**.
3. The Contractor has met all end of Contract and transition Requirements pursuant to **Section V, Terms and Conditions**, Section 2.6 End of Contract and Transition and **Section III, Scope of Work and Requirements**;
4. The Contractor has provided NCTA with all required materials, fixtures, furnishings, Equipment and Software; Documentation and manuals, either owned by or licensed to NCTA, pursuant to this Agreement. All such materials have been verified by NCTA to be in good, working order;
5. An affidavit has been delivered to NCTA, signed by the Contractor, stating all debts and claims of suppliers and Subcontractors have been paid and/or settled;
6. All Contractor claims for each Phase are deemed to be resolved by NCTA, and the Contractor has submitted a statement that no such requests or protests will be applied for; any and all claims under this Agreement are resolved, and that no such claims will be made;
7. All Requirements identified in **Section III, Scope of Work and Requirements** shall be verified and Certified by the Contractor to be successfully delivered, and shall be Approved by NCTA; and
8. All the Contractor's other obligations under the Agreement shall have been satisfied in full or waived by NCTA.

1.9.4. Project Completion

Project Completion shall be deemed to have occurred when all obligations under this Agreement have been successfully performed by the Contractor, including but not limited to all retentions owed to the Contractor have been released by NCTA and, when NCTA has delivered a Notice of Project completion to the effect of the foregoing.

1.10. Contract Documents and Order of Precedence

The Agreement is composed of the following documents and 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
2. RFP **Section V, Terms and Conditions, Sections 1 and 2**, including Addenda
3. RFP **Section I, Administrative** and RFP **Section IV Proposal Contents**,
4. RFP **Section III, Conformed Scope of Work and Requirements**, including Attachments I-12 and Addenda
5. RFP **Section V, Terms and Conditions**, Section 3 General Terms and Conditions
6. Contractor's Price Proposal
7. Contractor's Technical Proposal, including Exhibits and Appendices other than Price Proposal.

2. Contract Changes and Termination

2.1. General

The following Contract changes are allowable within the scope of this Contract:

1. Change Orders – The NCTA anticipates using Change Orders to address variances in the original quantities tabulated pursuant to the RFP.
2. Extra Work Orders –The NCTA anticipates issuing Extra Work Orders to address variances in the specifications or **Section III, Scope of Work and Requirements** for which there is no appropriate pay item or category. Extra Work Orders will be issued within the sole discretion of the NCTA, and such additional Work may be subject to a new competitive procurement as deemed to be in the best interest of the NCTA.
3. Task Orders – The NCTA anticipates issuing Task Orders for Work required to enhance Software, Upgrade Equipment, enhance or otherwise improve Maintenance Services for needed activities in accordance with labor rates proposed and set forth in the Price Proposal.
4. Time Extensions – The NCTA anticipates issuing Time Extensions, as necessary, to modify Project milestones for reasons out of the control of the Contractor. Unless otherwise agreed to by the NCTA in writing, the Contractor’s payment schedule and Price Proposal, including labor rates identified in the Price Proposal, shall apply to all of the above Contract changes.
5. If cost for additional Work and/or Services cannot be established on the basis of the Price Proposal or the Payment Schedule, a catalog or market price of a commercial product sold in substantial quantities, or on the basis of prices set by law or regulation, the Contractor is required to submit to the NCTA detailed cost breakdowns, including information on labor and materials costs, overhead and other indirect costs.

2.2. Change Orders

1. A Change Order will be a change in Contract quantities of Handheld Readers or Transponder Programmers to expand the Scope of Work and Requirements.. In this case, the Contractor shall provide a detailed Technical and Price Proposal for the order, and await Approval and Notice to Proceed from NCTA before incurring any expenses for which the Contractor expects reimbursement.

2.3. Extra Work Orders

An Extra Work Order will ONLY be a change in the Scope of Work and Requirements requiring different functionality, Hardware or Software or a Contract term than that covered by the existing Contract or a change to a Contract Term and condition with an impact. Some examples include:

1. Addition of a new Protocol; and
2. Changes to insurance or legal requirements.

2.4 Time Extensions, Schedule Changes and Submittals

2.4.1 Time Extensions and Schedule Changes

1. Within fourteen (14) Calendar Days of Notice to Proceed the Contractor shall submit a Project Schedule for Approval in accordance with the Requirements set forth in **Section III, Scope of Work and Requirements**. The Approved Project Schedule at the time of the execution of the Agreement shall be included as **Exhibit X**, Project Schedule.
2. The Contractor shall clearly label each update against the Approved Project Schedule, pursuant to the Requirements of the Approved Project Management Plan. Submission of the monthly updates against the Approved Schedule for the Implementation Phase shall not release or relieve the Contractor from full responsibility for completing the Work within the time set forth in the Approved Project Schedule. If the Contractor causes delays and fails or refuses to implement measures sufficient to bring its Work back into conformity with the current Approved Project Schedule, its right to proceed with any or all portions of the associated Work may be terminated under the provisions of the Contract. However, in the event that NCTA, in its sole determination, should permit the Contractor to proceed, the NCTA's permission will in no way operate as a waiver of its rights nor will it deprive NCTA of its rights under any other provisions of the Contract.
3. NCTA will Approve Time Extensions ONLY for Force Majeure causes or acts by NCTA which have been documented to have impeded the Contractor's Project progress.
4. Any changes to the Approved Project Schedule require Approval and an Amendment to the Contract.
5. Unless otherwise expressly agreed to by NCTA, the Contractor shall not receive extra compensation or damages for any time extension Approved by NCTA for completion of additional and/or altered Work. However, the Contractor shall be fully compensated for such Work as agreed upon by NCTA and the Contractor in the Change Order or Extra Work Order.

2.4.2 Submittals

Contractor's Submittal requirements and Submittal schedule shall be as set out in Contractor's Approved Project Management Plan, as required in **Section III, Scope of Work and Requirements**. The baseline schedule Approved after Notice to Proceed shall establish accepted dates by which Contractor shall submit required permits, documents, and applications, including all necessary documents in support thereof. NCTA's written Approval will be required for these Submittals. NCTA will Approve or reject such Submittals, providing an explanation of any reasons for rejection in a form agreed to in the Project Management Plan. In any instance where NCTA does not provide Approval, rejection or written notification of an extended review period by the due date specified in the Approved Baseline Schedule, the Contractor shall notify NCTA in writing that the NCTA response is due. NCTA's right to extend the review period is intended to allow flexibility in special circumstances where the nature of the Submittal requires more involved review, and not as a diminution of NCTA's obligation to promptly review Submittals. NCTA reserves the right to reject Submittals that are not complete or correct and to extend the review period accordingly.

Contractor shall not be held responsible for delays in schedule due to delays in Approvals and permits completely beyond the control of the Contractor. Notwithstanding the foregoing, Contractor shall make every effort to work around and mitigate the impact of delay.

2.5. Contract Termination

2.5.1. Termination General Requirements

1. The Contract issued for AVI Transponders will terminate at the end of the Contract Term(s) set forth in **Section V, Terms and Conditions**, Section 1.2 Contract Term, inclusive of any Maintenance and or extension periods as noted therein.
2. The NCTA may terminate the Contract, in whole or in part, for default subject to the default provisions set forth in this Section 2.5.1.
3. Any required Notices of termination made under this Contract shall be transmitted via U.S. Mail, Certified Return Receipt Requested, 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 parties may mutually terminate this Contract by written agreement at any time.
5. NCTA may terminate this Contract, in whole or in part for convenience, pursuant to the **Section V, Terms and Conditions**, Section 2.5.3.
6. NCTA will notify the Contractor at least ninety (90) Days prior to the termination of the Contract in the absence of cause. This notification will require the Contractor to initiate actions in to support a transition to NCTA or another third party. These actions shall include but are not limited to:
 - a. Acknowledgement of receipt of end of Contract notification, and
 - b. Act in accordance with **Section V, Terms and Conditions**, Section 2.6 End of Contract and Transition.

2.5.2. Termination for Cause

1. In the event any Equipment, Hardware, Software, or Services furnished by the Contractor during 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 NCTA may cancel and procure the Work or Services from other sources; holding Contractor liable for any excess costs occasioned thereby. The rights and remedies of NCTA provided in **Section V, Terms and Conditions**, Section 2.5 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 NCTA for damages sustained by NCTA arising from Contractor's breach of this Contract; and the NCTA 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. Voluntary or involuntary bankruptcy or receivership by Contractor shall be cause for termination.
2. Cause shall mean a material breach of this Agreement by the Contractor. Without limiting the generality of the foregoing and in addition to those instances referred to elsewhere in this Agreement as a breach, a material breach shall include the following:
 - a. The Contractor has not acquired the necessary Certifications or Approvals as set forth in **Section III, Scope of Work and Requirements**;

- b. The Contractor materially inhibited NCTA's collection of toll revenue;
- c. The Contractor has not submitted acceptable Deliverables to NCTA on a timely basis;
- d. The Software/Equipment proves incapable of meeting the functional and/or Performance Requirements set forth in **Section III, Scope of Work and Requirements**;
- e. The Contractor refused or failed, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials to properly perform the Services required under this Agreement;
- f. The Contractor failed to make prompt payment to Subcontractors or suppliers for materials or labor;
- g. The Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received from this Agreement 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;
- h. 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;
- i. The Contractor fails to maintain insurance policies and coverages or fails to provide proof of insurance or copies of insurance policies as required by this Agreement;
- j. Any warranty, representation, certification, financial statement or other information made or furnished to induce NCTA to enter into this Agreement, or made or furnished, at any time, in or pursuant to the terms of this Agreement or otherwise by the Contractor, or by any person who guarantees or who is liable for any obligation of the Contractor under this Agreement, shall prove to have been false or misleading in any material respect when made;
- k. Any intentional violation by the Contractor of State or Federal ethics provisions, or applicable laws, rules or regulations;
- l. The Contractor has failed to obtain the Approval of NCTA where required by this Agreement;
- m. The Contractor has failed in the representation of any warranties stated herein;
- n. The Contractor makes a statement to any representative of NCTA indicating that the Contractor cannot or will not perform any one or more of its obligations under this Agreement;
- o. The Contractor fails to remedy Excessive Failures;
- p. 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 this Agreement;

- q. 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 this Agreement;
 - r. A pattern of repeated failures to meet the Performance Requirements as defined in **Section III, Scope of Work and Requirements**;
 - s. The suspension or revocation of any license, permit, or registration necessary for the performance of the Contractor's obligations under this Agreement; or
 - t. The default in the performance or observance of any of the Contractor's other obligations under this Agreement and the continuance thereof for a period of thirty (30) Calendar Days after Notice given to the Contractor by NCTA.
3. **Cure/Warning Period.** Prior to terminating the Contract for cause, the NCTA will issue a Notice of cure/warning to the Contractor thirty (30) Days prior to the termination date. The Notice will be transmitted via U.S. Mail Certified Return Receipt Requested or personal delivery to the Contractor contract administrator, and the period of Notice for termination shall begin on the date the Return Receipt is signed and dated or upon personal delivery to the Contractor contract administrator. 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 NCTA, the Contract will remain in effect in accordance with the terms and conditions thereof.
4. **Termination Without Notice of Cure/Warning.** If the NCTA has issued two Notices of cure/warning to the Contractor, upon the issuance of the third or subsequent Notice the NCTA reserves the right to terminate the Contract without further Notice. The failure of the NCTA to exercise this right on any occasion will not be deemed a waiver of any future right.

2.5.3. Termination for Convenience Without Cause

- I. The NCTA may terminate the Contract without cause, in whole or in part by giving ninety (90) 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. In the event the Contract is terminated for the convenience of the NCTA, the NCTA will pay for all Work performed and products delivered in conformance with the Contract up to the date of termination.

2.6. End of Contract and Transition

If this Agreement is not renewed at the end of this term, or is canceled prior to its expiration, for any reason, the Contractor shall cooperate with NCTA and must provide, all reasonable transition assistance requested by the NCTA, to allow for the expired or canceled portion of the Services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Services to the NCTA or its designees. Such End of Contract Transition will be deemed by the parties to be governed by the Terms and Conditions of this Agreement, (notwithstanding this expiration or cancellation) except for those Agreement terms or conditions that do not reasonably apply to such transition assistance. Costs for such End of Contract Transition are included in the current Contract and the Contractor shall perform such Work without additional compensation.

3. General Terms and Conditions

3.1. Standards

- I. Any Deliverables shall meet all applicable State and Federal requirements, such as State or Federal Regulation, and NC Chief Information Officer's (CIO) policy or regulation. The Contractor will provide and maintain a quality assurance system or program that includes any Deliverables and will tender or provide to the State only those Deliverables that have been inspected and found to conform to the requirements of this Contract. All Deliverables are subject to operation, certification, testing and inspection, and any accessibility requirements as required:
 - a. Site Preparation: The Contractor shall provide NCTA complete site requirement specifications for the Deliverables, if any. These specifications shall ensure that the Deliverables to be installed shall operate properly and efficiently within the site environment. The Contractor shall advise NCTA of any site requirements for any Deliverables required by NCTA's specifications. Any alterations or modification in site preparation which are directly attributable to incomplete or erroneous specifications provided by the Contractor and which would involve additional expenses to NCTA, shall be made at the expense of the Contractor.
 - b. Specifications: The apparent silence of the specifications as to any detail, or the apparent omission of detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and only material and workmanship of the first quality may be used. Upon any Notice of noncompliance issued by NCTA, Contractor shall supply proof of compliance with the specifications within ten (10) Calendar Days. Contractor shall provide written Notice of its intent to deliver alternate or substitute products, goods or Deliverables. Alternate or substitute products, goods or Deliverables may be accepted or rejected at the sole discretion of NCTA; and any such alternates or substitutes shall be accompanied by Contractor's Certification and evidence satisfactory to NCTA that the function, characteristics, performance and endurance will be equal or superior to the original Deliverables specified. All alternates or substitutes are subject to Approval by NCTA.

3.2. Acceptance Criteria

- I. NCTA will have the obligation to notify Contractor, in writing ten (10) Calendar Days following provision, performance (under a provided milestone or otherwise as agreed) or delivery of any Services or other Deliverables described in the Contract that are not acceptable. The Notice shall specify in reasonable detail the reason(s) a given Deliverable is unacceptable. Acceptance by NCTA will not be unreasonably withheld; but may be conditioned or delayed as required for Installation and/or testing of Deliverables. Final Acceptance is expressly conditioned upon completion of any applicable inspection and testing procedures. Should a Deliverable fail to meet any specifications or Acceptance criteria, NCTA may exercise any and all rights hereunder. Deliverables discovered to be defective or failing to conform to the specifications may be rejected upon initial inspection or at any later time if the defects or errors contained in the Deliverables or non-compliance with the specifications were not reasonably ascertainable upon

initial inspection. If Contractor fails to promptly cure or correct the defect or replace or re-perform the Deliverables, NCTA reserves the right to cancel the Contract, contract with a different contractor, and to invoice the original Contractor for any differential in price over the original Contract price.

3.3. Personnel

- I. Contractor shall not substitute Key Personnel assigned to this Contract without prior written Approval by NCTA. Any desired substitution shall be noticed to NCTA, accompanied by the names and references of Contractor's recommended substitute personnel. NCTA will approve or disapprove the requested substitution in a timely manner. NCTA may, in its sole discretion, terminate the services of any person providing Services under this Contract. Upon such termination, NCTA may request acceptable substitute personnel or terminate the Contract Services provided by such personnel.

3.4. Subcontracting

- I. 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 NCTA. Contractor shall provide NCTA with complete copies of any agreements made by and between 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 NCTA is an intended third-party beneficiary of the contract; that the Subcontractor has no agreement with NCTA; and that NCTA will be indemnified by the Contractor for any claim presented by the Subcontractor. Notwithstanding any other term herein, Contractor shall timely exercise its contractual remedies against any non-performing Subcontractor and, when appropriate, substitute another Subcontractor.

3.5. Contractor's Representation

- I. 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. Contractor agrees that it will not enter into any agreement with a third-party that might abridge any rights of NCTA under this Contract. Contractor will serve as the prime Contractor under this Contract. Should NCTA approve any Subcontractor(s), 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. Third-party subcontractors, if approved, may serve as Subcontractors to Contractor. Contractor will retain executive representation for functional and technical expertise as needed in order to incorporate any work by third-party subcontractor(s).
2. Intellectual Property. 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. Contractor warrants that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Contractor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Contractor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any Contract, or order by any court of competent jurisdiction.

3.6. Software and Intellectual Property

3.6.1. Internal/Embedded Software License and Escrow

1. This section on Software licenses and Software in escrow applies to any source code developed or modified specifically for NCTA, application customizations and configuration settings, internal embedded Software, firmware and unless otherwise provided in this NCTA RFP, or in an attachment hereto.
2. Deliverables comprising goods, Equipment or products (Hardware) may contain Software for internal operation, or as 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.
3. Contractor grants an unrestricted license to NCTA to use any non-commercial Software provided under this Contract, for any reasonable purpose for NCTA toll operations. NCTA will have a worldwide, nonexclusive, non-sublicensable license to use such Software and/or Documentation for its internal use. NCTA may make and install copies of the Software to support any NCTA use on the NCTA system.
4. The Contractor shall provide to NCTA an executable copy of all Software developed for NCTA, to include source code Documentation and application information. Included with the provision of source code, the Contractor shall demonstrate to NCTA that the provided executables are the correct Software for the systems as delivered.

3.6.2. Software Maintenance/Support Services

1. This general requirement applies unless otherwise provided in NCTA's solicitation document or in an attachment hereto.
2. For the first year and all subsequent Contract years, Contractor agrees to provide the following Services for the current version and one previous version of any Software provided with the Deliverables, commencing upon Installation of the Deliverables or delivery of the Software:

- a. **Error Correction.** Upon NCTA verification of an error or defect Software, the Contractor shall use reasonable efforts to correct or provide a working solution for the error or defect Contractor's expense. NCTA will comply with all reasonable instructions or requests of Contractor in attempts to correct an error or defect in the program. Contractor and the State 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 Maintenance Services under this paragraph.
- b. Contractor shall notify NCTA of any material errors or defects in the Deliverables known, or made known to Contractor from any source during the Contract Term that could cause the production of inaccurate or otherwise materially incorrect, results. Contractor shall initiate actions as may be commercially necessary or proper to effect corrections of any such errors or defects.
- c. **Updates.** Contractor shall provide to NCTA, at no additional charge, all new releases and bug fixes (collectively referred to as “Changes”) for any Software Deliverable developed or published by 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.** Contractor shall provide NCTA 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 in accordance with Requirements of this RFP.

3.6.3. 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 NCTA, 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 NCTA a royalty-free, fully-paid, worldwide, perpetual, non-exclusive license to use such Contractor Technology in connection with the Deliverables for NCTA’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 NCTA to Contractor. NCTA hereby grants Contractor a royalty-free, fully-paid, worldwide, perpetual, non-exclusive license for Contractor’s internal use to non-confidential Deliverables originated and prepared by the Contractor for delivery to NCTA.
3. The Contractor, at its own expense, shall defend any action brought against the State 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 or Equipment, infringes a patent, or copyright or violates a trade secret in the

United States. The Contractor shall pay those costs and damages finally awarded against the State 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 NCTA of any such claim; and,
 - b. That the Contractor shall have the sole control of the defense of any action on such claim and all negotiations for its settlement or compromise provided, however, that NCTA will have the option to participate in such action at its own expense.
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, or a trade secret in the United States, NCTA will permit the Contractor, at its option and expense, either to procure for NCTA 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 NCTA will be prevented by injunction, the Contractor agrees to take back such goods/Hardware or Software, and refund any sums NCTA has paid Contractor less any reasonable amount for use or damage and make every reasonable effort to assist NCTA in procuring substitute Deliverables. If, in the sole opinion of NCTA, the return of such infringing Deliverables makes the retention of other items of Deliverables acquired from the Contractor under this Contract impractical, NCTA will 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 NCTA has paid Contractor less any reasonable amount for use or damage.
 5. Contractor will not be required to defend or indemnify NCTA if any claim by a third-party against NCTA for infringement or misappropriation (i) results from the State's alteration of any Contractor-branded product or Deliverable, or (ii) results from the continued use of the good(s) or Services and Deliverables after receiving Notice they infringe a trade secret of a third-party.
 6. Nothing stated herein, however, shall affect Contractor's ownership in or rights to its preexisting intellectual property and proprietary rights.

3.6.4. Tolls Data Ownership and Security

1. All data, records, and operations history information shall remain property of the NCTA at all times during the life of the Contract and after Contract termination.
2. The Contractor shall ensure that no unauthorized personnel will have access to individual facilities, cabinets, data and records, payment histories, any personal information of existing or potential NCTA toll customers. Paper records shall be locked when not in use; systems shall have secure password and ID controls for any data access. Contractor shall comply with the North Carolina Statewide Information Security Manual. Currently found at <http://it.nc.gov/document/statewide-information-security-manual>, as may be amended from time to time throughout the term of the Contract.

3.7. Other General Provisions

3.7.1. Governmental Restrictions

1. In the event any restrictions are imposed by governmental requirements that necessitate 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 NCTA. NCTA reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract. NCTA may advise Contractor of any restrictions or changes in specifications required by North Carolina legislation, rule or regulatory authority that require compliance by the State. In such event, 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, NCTA may terminate this Contract and compensate Contractor for sums due under the Contract.

3.7.2. Prohibition Against Contingent Fees and Gratuities

1. Contractor warrants that it has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the State for the purpose of obtaining any contract or award issued by the State. Contractor further warrants that no commission or other payment was or will be received from or paid to any third-party contingent on the award of any contract by the State, except as shall be expressly communicated to NCTA in writing prior to Acceptance of the Contract or award in question. Each individual signing below warrants that he or she is duly authorized by their respective party to sign this Contract and bind the party to the terms and conditions of this Contract. Contractor and their authorized signatory further warrant that no officer or employee of the State has any direct or indirect financial or personal beneficial interest, in the subject matter of this Contract; obligation or contract for future award of compensation as an inducement or consideration for making this Contract. Subsequent discovery by the State of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts. Violations of this provision may result in debarment of the bidder or Contractor as permitted by 9 NCAC 06B.1009 (f), 06B.1030, or other provision of law.
2. Gift Ban - By Executive Order 24, issued by Governor Perdue, and G.S. § 133-32, it is unlawful for any vendor or contractor (i.e., architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's cabinet agencies (i.e., Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who: (a) have a contract with a governmental agency; or (b) have performed under such a contract within the past year; or (c) anticipate bidding on such a contract in the future. For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. § 133-32.

3.7.3. Equal Employment Opportunity

- I. Contractor shall comply with all Federal and State requirements concerning fair employment and employment of the disabled, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin or physical disability.

3.7.4. Inspection at Contractor's Site

- I. NCTA reserves the right to inspect, during Contractor's regular business hours at a reasonable time, upon Notice of not less than two (2) weeks, and at its own expense, the prospective Deliverables comprising Equipment or other tangible goods, or the plant or other physical facilities of a prospective Contractor prior to Contract award, and during the Contract Term as necessary or proper to ensure conformance with the specifications/Requirements and their adequacy and suitability for the proper and effective performance of the Contract.

3.7.5. Advertising / Press Release

- I. The Contractor absolutely shall not publicly disseminate any information concerning the Contract without prior written Approval from the State or its agent. For the purpose of this provision of the Contract, the agent is the NCTA contract administrator unless otherwise named in the solicitation documents.

3.7.6. Confidentiality

- I. In accordance with 9 NCAC 06B.0103 and 06B.1001 and to promote maximum competition in the State competitive bidding process, the State may maintain the confidentiality of certain types of information described in G.S. §132-1 et. seq. Such information may include trade secrets defined by G.S. §66-152 and other information exempted from the Public Records Act pursuant to G.S. §132-1.2. Contractor may designate appropriate portions of its response as confidential, consistent with and to the extent permitted under the Statutes and Rules set forth above, by marking the top and bottom of pages containing confidential information with a legend in boldface type "CONFIDENTIAL". By so marking any page, the Contractor warrants that it has formed a good faith opinion, having received such necessary or proper review by counsel and other knowledgeable advisors that the portions marked confidential meet the requirements of the Rules and Statutes set forth above. **However, under no circumstances shall price information be designated as confidential.** The State may serve as custodian of Contractor's confidential information and not as an arbiter of claims against Contractor's assertion of confidentiality. If an action is brought pursuant to G.S. §132-9 to compel the State to disclose information marked confidential, the Contractor agrees that it will intervene in the action through its counsel and participate in defending the State, including any public official(s) or public employee(s). The Contractor agrees that it shall hold the State and any official(s) and individual(s) harmless from any and all damages, costs, and attorneys' fees awarded against the State in the action. The State agrees to promptly notify the Contractor in writing of any action seeking to compel the disclosure of Contractor's confidential information. The State shall have the right, at its option and expense, to participate in the defense of the action through its counsel. The State shall have no liability to Contractor with respect to the disclosure of Contractor's confidential information ordered by a court of competent jurisdiction pursuant to G.S. §132-9 or other applicable law.

- 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 State or NCTA during performance of any contractual obligation from loss, destruction or erasure.
- b. 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 North Carolina. Contractor will, upon request of the State, verify and produce true copies of any such agreements. Production of such agreements by Contractor may be made subject to applicable confidentiality, non-disclosure or privacy laws; provided that Contractor produces satisfactory evidence supporting exclusion of such agreements from disclosure under the N.C. Public Records laws in G.S. §132-1 et. seq. The State may, in its sole discretion, provide a non-disclosure and confidentiality agreement satisfactory to the State for Contractor's execution. The State 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 N.C. 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 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 State.
- d. Contractor shall protect the confidentiality of all information, data, instruments, studies, reports, records and other materials provided to it by NCTA or maintained or created in accordance with this Contract. No such information, data, instruments, studies, reports, records and other materials in the possession of Contractor shall be disclosed in any form without the prior written consent of the NCTA. 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 State or are not proprietary to the Contractor are the property of the State of North Carolina and must be kept confidential or returned to the State, or destroyed. Proprietary Contractor materials shall be identified to the State 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 State.

3.7.7. Deliverables

- I. Deliverables, as used herein, shall comprise all Hardware, Contractor Services, professional services, Software and provided modifications to the Software, and incidental materials, including any goods, Software or Services access license, data, reports and Documentation provided or created during the performance or provision of Services hereunder. Hardware, custom Software first requested and developed for the State and other Deliverables not subject to owner licensing or leasing are the property of the State of North Carolina. Proprietary Contractor materials licensed to the State shall be identified to the State by Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Deliverables include "Work Product" and means any expression of Licensor's findings, analyses, conclusions, opinions, recommendations, ideas, techniques, know-how, Designs, programs, enhancements, and other technical information; but not source and object code or Software.

3.7.8. Late Delivery, Back Order

- I. Contractor shall advise NCTA immediately upon determining that any Deliverable will not, or may not, be delivered at the time or place specified. Together with such Notice, Contractor shall state the projected delivery time and date. In the event the delay projected by Contractor is unsatisfactory, NCTA will so advise Contractor and may proceed to procure substitute Deliverables or Services.

3.7.9. Assignment

- I. Contractor may not assign this Contract or its obligations hereunder except as permitted by 09 NCAC 06B.1003 and this paragraph. Contractor shall provide reasonable Notice of not less than thirty (30) Days prior to any consolidation, acquisition, or merger. Any assignee shall affirm this Contract atoning to the terms and conditions agreed, and that Contractor shall affirm that the assignee is fully capable of performing all obligations of Contractor under this Contract. An assignment may be made, if at all, in writing by the Contractor, Assignee and the State setting forth the foregoing obligation of Contractor and Assignee.

3.7.10. Insurance Coverage

- I. During the term of the Contract, the Contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the coverage and limits, as set forth in **Section I, Administrative**, Section 4.2, Insurance Requirements.

3.7.11. Dispute Resolution

- I. 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) Days after the receipt of the Notice by the receiving Project Manager, the two Project Managers shall meet in NCTA's offices to attempt to resolve the dispute. If the Project Managers cannot resolve the dispute then, within fourteen (14) Days after the date of written Notice by either Project Manager to the Executive Director of NCTA and the Project Principal, the Executive Director of NCTA and the Project Principal shall meet in NCTA's

offices to attempt to resolve the dispute. If the Executive Director of NCTA 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.

3.7.12. Default

1. In the event any Deliverable furnished by the Contractor during performance of any Contract Term fails to conform to any material requirement of the Contract specifications, Notice of the failure is provided by NCTA and the failure is not cured within ten (10) Days, or Contractor fails to meet the requirements of paragraph 3.2 Acceptance Criteria herein, NCTA 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 provided in paragraphs 3.3.7.15 and 3.3.7.16 and the obligation to informally resolve disputes as provided in these Terms and Conditions. Default may be cause for debarment as provided in 09 NCAC 06B.1206. NCTA reserves the right to require performance guaranties pursuant to 09 NCAC 06B.1207 from the Contractor without expense to the State. The rights and remedies of NCTA provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. NCTA allows for ten (10) Days to rectify a problem and thirty (30) Days to cure a termination.
2. If Contractor fails to deliver Deliverables within the time required by this Contract, NCTA may provide written Notice of said failure to Contractor, and by such Notice require payment of a penalty.
3. 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. Should NCTA fail to perform any of its obligations upon which Contractor's performance is conditioned, Contractor shall not be in default for any delay, cost increase or other consequences due to NCTA's failure. Any deadline that is affected by any such failure in assumptions or performance by NCTA will be extended by an amount of time reasonably necessary to compensate for the effect of such failure.
5. Contractor shall provide a Plan to cure any default if requested by NCTA. The Plan shall state the nature of the default, the time required for cure, any mitigating factors causing or tending to cause the default, and such other information as the Contractor may deem necessary or proper to provide.

3.7.13. Waiver of Default

1. Waiver by either party of any default or breach by the other party 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, unless so stated in a writing and signed by authorized representatives of NCTA and the Contractor, and made as an Amendment in accordance with the terms of this Contract.

3.7.14. Limitation of Contractor's Liability

1. Where Deliverables are under NCTA's exclusive management and control, the Contractor shall not be liable for direct damages caused by NCTA's failure to fulfill any responsibilities of assuring the proper use, management and supervision of the Deliverables and programs, audit controls, operating methods, office procedures, or for establishing all proper checkpoints necessary for NCTA's intended use of the Deliverables.
2. The Contractor's liability for damages to NCTA for any cause whatsoever, and regardless of the form of action, whether in contract or in tort, shall be limited to two times the value of the Contract.
3. The foregoing limitation of liability shall not apply to the payment of costs and damage awards referred to in the paragraph entitled "Patent, Copyright, and Trade Secret Protection", to claims covered by other specific provisions calling for liquidated damages or specifying a different limit of liability, or to claims for injury to persons or damage to property caused by Contractor's negligence or willful or wanton conduct. This limitation of liability does not apply to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

3.7.15. 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 NCTA, employees of NCTA, persons designated by NCTA for training, or person(s) other than agents or employees of the Contractor, designated by NCTA 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 NCTA'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 NCTA and the State 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, firm 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. 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.

3.7.16. General Indemnity

1. The Contractor shall hold and save NCTA, its officers, agents and employees, harmless from liability of any kind, including all claims and losses, with the exception of consequential damages, as normally construed, accruing or resulting to any other person, firm or corporation furnishing or supplying Work, Services, materials or supplies in connection with the performance of this Contract. The foregoing indemnification and defense by the Contractor shall be conditioned upon the following:

- a. NCTA will give Contractor written Notice within thirty (30) Days after it has actual knowledge of any such claim(s) or action(s) filed; and
- b. The Contractor shall have the sole control of the defense of any such claim(s) or action(s) filed and of all negotiations relating to settlement or compromise thereof, provided, however, that NCTA will have the option to participate at their own expense in the defense of such claim(s) or action(s) filed.

3.7.17. Changes

- I. This Contract is awarded subject to shipment of quantities, qualities, and prices indicated in the Contract, and all conditions and instructions of the Contract or Proposal on which it is based. Any changes made to this Contract or purchase order proposed by the Contractor are hereby rejected unless accepted in writing by NCTA. NCTA will not be responsible for Deliverables or Services delivered other than those specified in the Contract or the Proposal on which it is based.

3.7.18. Time is of the Essence

- I. Time is of the essence in the performance of this Contract. Contractor and NCTA will mutually develop and agree to a schedule of implementation, testing, Maintenance, etc. Contractor and Subcontractors will be required to adhere to the Approved schedule.

3.7.19. Date and Time Warranty

- I. 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. This warranty shall survive termination or expiration of the Contract.

3.7.20. Independent Contractors

- I. Contractor and its employees, officers and executives, and Subcontractors, if any, shall be independent Contractors and not employees or agents of the State. This Contract shall not operate as a joint venture, partnership, trust, authority or any other business relationship.

3.7.21. Transportation

- I. Transportation of Deliverables shall be FOB Destination unless otherwise specified in this RFP. Freight, handling, hazardous material charges, and distribution and Installation charges shall be included in the total price of each item. Any additional charges shall not be honored for payment unless authorized in writing by NCTA. In cases where parties, other than the Contractor ship materials against this Contract, the shipper shall be instructed to show the purchase order number on all packages and shipping manifests to ensure proper identification and payment of invoices. A complete packing list shall accompany each shipment.

3.7.22. Notices

- I. Any Notices required under this Contract should be delivered to the Contractor or NCTA. Unless otherwise specified in the Solicitation Documents, any Notices shall be delivered in writing by U.S. Mail, Commercial Courier or by hand.

3.7.23. Titles and Headings

1. Titles and Headings in this Contract are used for convenience only and do not define, limit or proscribe the language of terms identified by such Titles and Headings.

3.7.24. Amendment

1. This Contract may not be amended orally or by performance. Any Amendment must be made in written form and signed by duly authorized representatives of NCTA and Contractor in conformance with Contract requirements.

3.7.25. Taxes

1. The State of North Carolina is exempt from Federal excise taxes and no payment will be made for any personal property taxes levied on the Contractor or for any taxes levied on employee wages. Agencies of the State may have additional exemptions or exclusions for Federal or State taxes. Evidence of such additional exemptions or exclusions may be provided to Contractor by Agencies, as applicable, during the term of this Contract. Applicable State or local sales taxes shall be invoiced as a separate item and not included in the Price Proposal.

3.7.26. Governing Laws, Jurisdiction, and Venue

1. This Contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina. The place of this Contract or purchase order, its situs and forum, shall be Wake County, North Carolina, where all matters, whether sounding in contract or in tort, relating to its validity, construction, interpretation and enforcement shall be determined. Contractor agrees and submits, solely for matters relating to this Contract, to the jurisdiction of the courts of the State of North Carolina, and stipulates that Wake County shall be the proper venue for all matters.
2. Except to the extent the provisions of the Contract are clearly inconsistent therewith, the applicable provisions of the Uniform Commercial Code as modified and adopted in North Carolina shall govern this Contract. To the extent the Contract entails both the supply of "goods" and "Services," such shall be deemed "goods" within the meaning of the Uniform Commercial Code, except when deeming such Services as "goods" would result in a clearly unreasonable interpretation.

3.7.27. Force Majeure

1. Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Force Majeure events shall not otherwise limit NCTA's rights to enforce contracts.

3.7.28. Compliance with Laws

1. The Contractor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

3.7.29. Severability

- I. 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, requirement, 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.

3.7.30. Federal Intellectual Property Bankruptcy Protection Act

- I. The Parties agree that NCTA will be entitled to all rights and benefits of the Federal Intellectual Property Bankruptcy Protection Act, Public Law 100-506, codified at 11 U.S.C. 365(n) and any amendments thereto.

3.7.31. Iran Divestment Act Certification

- I. The Contractor certifies that, as of the date listed below, it is not on the Final Divestment List as created by the State Treasurer pursuant to G.S. § 147-86.58 et seq. In compliance with the requirements of the Iran Divestment Act and G.S. §147-86.60 et seq, Contractor shall not utilize in the performance of the Contract any Subcontractor that is identified on the Final Divestment List. The Final Divestment List can be found on the State Treasurer's website at the address www.nctreasurer.com/Iran and should be updated every one-hundred and eighty (180) Days.

3.7.32. Availability of Funds

- I. Any and all payments to Contractor are expressly contingent upon and subject to the appropriation, allocation and availability of funds to NCTA for the purposes set forth in this Contract. If this Contract is funded in whole or in part by Federal funds, the Agency's performance and payment shall be subject to and contingent upon the continuing availability of said Federal funds for the purposes of the Contract. If the term of this Contract extends into fiscal years subsequent to that in which it is approved, such continuation of the Contract is expressly contingent upon the appropriation, allocation and availability of funds by the N.C. Legislature for the purposes set forth in the Contract. If funds to effect payment are not available, the Agency will provide written notification to Contractor. If the Contract is terminated under this paragraph, Contractor agrees to take back any affected Deliverables and Software not yet delivered under this Contract, terminate any Services supplied to the Agency under this Contract, and relieve NCTA of any further obligation thereof. The State shall remit payment for Deliverables and Services accepted prior to the date of the aforesaid Notice in conformance with the payment terms.