SOUTHWEST OHIO REGIONAL TRANSIT AUTHORITY

November 2, 2018
REQUEST FOR PROPOSAL

RFP 73-2018

REGIONAL TRIP PLANNING AND FARE PURCHASE APPLICATION

1.0   Executive Summary

Project Title

Date Issued:	November 2, 2018
Description of Work:	SORTA is seeking proposals from qualified firms for the purchase of a regional trip planning and fare purchase application.
Contract Type:	Firm Fixed Price
Contract Term:	One (1) year performance period from the date of award with a one (1) year option
Basis for Award:	Award will be made to the firm whose proposal, in SORTA's sole judgment, is considered to be most advantageous to SORTA when all factors are considered
Disadvantaged Business Enterprise Goal:	None
Bonds Required:	None
Pre-proposal Meeting:	November 9, 2018 at 1:00pm EST
Location:	SORTA/Metro 602 Main Street Gwynn Building, STE 1100 Mt. Adams Conference Room Cincinnati OH 45202
Last Day for Questions:	November 16, 2018 at 4:00pm EST
Proposal Deadline:	December 7, 2018 at 4:00pm EST
Anticipated Award Date:	January 31, 2019
Funding Source:	A combination of Federal and local funding
Taxes:	SORTA is exempt from payment of Ohio sales tax and Federal excise taxes.
Point of Contact:	Greta Perry, Purchasing Agent Phone: 513-632-9229 Email: Gperry@go-metro.com

1.1. Introduction

The Southwest Ohio Regional Transit Authority ("SORTA") is a regional transit authority organized and operating under Section 306.30 et seq. of the Ohio Revised Code. As such, it is a political subdivision of the State of Ohio. SORTA provides both fixed-route mass transportation services through approximately 350 city-type transit buses, and contracted paratransit services SORTA owns buildings varying in size that require inspection, listed in Section 1.3 below. SORTA is responsible for maintaining the value and appearance of all SORTA owned buildings through timely and cost effective maintenance and repairs of structural, mechanical, plumbing and electrical systems.

1.2.   Project Overview

SORTA is planning to award a single Firm-Fixed-Price contract with a period of performance of one (1) base year with a one (1) year option to replace the current trip planner and fare payment application (CincyEZRide) which expires August 31, 2019, with a new application that will provide the following functionalities:

- Regional trip planning
- Itineraries that utilize public transit, TNCs and shared cars and bikes
- Real-time tracking of public transit vehicles
- Fare purchase

(END OF EXECUTIVE SUMMARY)

2.0   SCOPE OF SERVICES

2.1. Organization Background

This scope of services is intended to help SORTA fulfill the NTD facility condition data reporting requirements of 49 U.S.C. § 5335. Section 5335 contains several provisions impacting NTD reporting requirements. Of note is a new requirement to report "asset condition information" to the NTD. FTA effected this statutory requirement with the recent promulgation of the TAM rule at 49 CFR part 625. The rule includes definitions for "transit asset management plan", "state of good repair" (SGR), and establishes performance measures for equipment, rolling stock, infrastructure, and facilities asset categories. These requirements are also included with the Asset Inventory Reporting notice of 49 CFR part 630 that was published in the Federal Register on July 26, 2016 (81 FR 48971).

2.2. Project Objectives

The Southwest Ohio Regional Transit Authority (SORTA), along with its regional partners, wish to replace the current trip planner and fare payment application (CincyEZRide, which expires August 2019) with a new application that will provide the following functionalities:

- Regional trip planning
- Itineraries that utilize public transit, TNCs and shared cars and bikes
- Real-time tracking of public transit vehicles
- Fare purchase
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The application shall allow users to plan their trips across the entire region using any combination of the above stated modes. The application shall also allow the users to purchase their fares through the same application.

This application shall be viewed by users as a one-stop-shop for planning and completing their trips.

2.3. Scope of Work

Due to the size, the project Scope of Work is provided as Attachment A.

3.0   INSTRUCTIONS TO PROPOSERS

3.1. Pre-Proposal Meeting

A pre-proposal meeting has been scheduled for **Wednesday, November 9, 2018 at 1:00pm**. This meeting will be held at **1:30pm Eastern Standard Time at the SORTA/Metro, Gwynn Building, Mt Adams Conference Room located at 602 Main Street, Ste 1100, Cincinnati, OH 45202.**

3.2. Proposal Preparation Cost

SORTA will not reimburse proposers for any costs incurred in the preparation and submittal of proposals or participation in the evaluation and negotiation process.

3.3. Proposal Format

Proposals shall be submitted in two (2) volumes; Volume 1) Technical Volume and Volume 2) Price Volume, each including one (1) original, plus an electronic copy (USB Flash Drive) containing the volumes in PDF format, in a sealed envelope. The Technical Volume is not to exceed 45 single spaced

pages and shall be prepared using 8½" x 11" paper. Two sided printing is required, except on any foldouts. If foldout pages are used, they shall not exceed 11" x 17". Each foldout shall count as two (2) pages. Time New Roman 10-point type is to be utilized on narratives, although smaller type size may be used for tables and figures. All page margins shall not be less than one inch, including page number(s). Proposals will be bound in a fashion which will permit easy disassembly by SORTA.

The following items are excluded from the page limitations: Compliance Matrix; Transmittal letters; cover pages; table-of-contents; dividers; and key staff resumes.

No price or price-related information shall appear in Volume 1, the Technical Proposal.

Electronic proposals will not be accepted. Proposals shall be delivered, either via postal mail or hand carried, to:

Southwest Ohio Regional Transit Authority
Attn: Greta Perry, Procurement Department
1401-B Bank Street
Cincinnati, Ohio 45214-1782
RE: RFP No. 72-2018

Proposals must be received no later than 4:00 p.m. Eastern Daylight Time, on Friday, December 7, 2018. Late proposals will not be accepted, except as described below.

3.4. Proposal Clarity and Conciseness

SORTA requests that proposers submit concise proposals, clearly addressing the evaluation criteria and information requested herein. Overly elaborate proposals and proposals containing only generalized marketing information are discouraged and may result in a lower evaluation score.

3.5. Proposal Format and Contents

The proposal should be prepared using the following format:

3.4.1 Technical Proposal (Volume 1)

A. Cover Letter

Cover letter should identify the prime contractor and all subcontractors, if any. The letter should also include the officer or other responsible executive of the proposer authorized to negotiate and agree to a contract. This individual shall serve as SORTA's point of contact for all communications regarding this solicitation. The cover letter should identify this individual by name, title, address, telephone, facsimile and email contact information. The letter should also contain a commitment that the proposed pricing will be valid for not less than **120 days**.

B. Project Approach

Please provide a detailed scope of services. Firm shall describe its understanding of the project and the proposed technical and management approach. The firm shall expand on the scope of work if appropriate to accomplish the overall objective of the project and provide suggestions that will enhance the results of usefulness of the study. Include assumptions about the number of meetings needed with SORTA staff to complete the work. The firm must also present a schedule of work.

C. Firm Qualifications and Experience

Firms shall submit a Statement of Qualifications. Provide a summary of the firm's qualifications, general information about the firm, location of office(s), years in business and areas of expertise. Provide a brief description of projects that involved a similar scope of service. Include the status or outcome of these projects and their locations along with contact information for those facilities/municipalities. Firm must provide at least two samples of previous reports that your company has prepared for other government units and/or businesses.

D. Staffing

Identify key staff and include a description of their abilities, qualifications and experience. Attach resumes of key staff to be assigned to this project. Include a proposed project management structure and organization chart. Please list the number of full-time staff by discipline. Identify any portion of the scope of work that would be subcontracted. Include firm qualifications and key personnel, telephone number and contact person for all subcontractors. SORTA reserves the right to approve or reject all consultants, internal staff performing consulting services or subcontractors proposed by the firm.

3.4.2 Business Proposal (Volume 2)

A. Cover Letter

A copy of the cover letter from Volume 1 should be included.

B. Insurance Certificates

This section should include copies of the proposer's worker's compensation, general liability, and automobile insurance certificates.

C. Certifications

This section should contain the following certifications which must be fully completed and executed by the proposer:

Attachment E:
Vendor Information

Attachment F:
Personal Property Tax Affidavit

Attachment G:
Certification of Contractor Regarding Debarment and Suspension

Attachment H:
Disadvantaged Business Enterprise Participation Plan

Attachment I:
Certification of Restrictions on Lobbying

D. Exceptions to Contractual Terms

The proposer may identify any proposed exceptions to SORTA's Terms and Conditions as contained in this RFP, or to propose any additional terms it considers

appropriate. Such proposed exceptions or additional terms must be specific, and include a clear explanation of the reasons for the exception or addition. Please note that certain terms contained herein are required by law or regulation and cannot be modified. This contract will be funded in part through grants from the U.S. Department of Transportation, Federal Transit Administration, and is subject to all requirements related thereto.

E. Price Proposal

Attachment B

Attachment B provides the mechanism for Volume 2, Price proposal, which shall be completed and signed on behalf of the proposer, and is attached.

3.6. Proposal Validity Period

Proposals, including any modification thereof, shall remain valid for not less than **120 days** from the date of receipt by SORTA.

3.7. Late Submissions, Modifications and Withdrawals of Offers

Any proposal, modification, or revision, that is received at the designated SORTA office after the exact time specified for receipt of proposals is "late" and will not be considered, unless it is received before award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition; and

- If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the SORTA infrastructure not later than 5:00 p.m. one (1) working day prior to the date specified for receipt of proposals; or

- There is acceptable evidence to establish that it was received at the SORTA office designated for receipt of proposals and was under SORTA's control prior to the time set for receipt of proposals; or

- It was the only proposal received. However, a late modification of an otherwise successful proposal, that makes its terms more favorable to SORTA, will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time of receipt at the SORTA office includes a time/date stamp or handwritten notation of personnel in that office on the proposal wrapper, other documentary evidence of receipt maintained by the office, or oral testimony or statements by SORTA personnel.

If an emergency or unanticipated event interrupts normal SORTA processes, so that proposals cannot be received at the SORTA office designated for receipt of proposals by the exact time specified in the solicitation and urgent SORTA requirements preclude amendment of the solicitation closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the SORTA office is open to the public.

Proposers may withdraw a proposal or modification thereof by written notice to the Director of Procurement at any time prior to the time specified for receipt of proposals or modifications. Notice may be electronic, provided a hard copy of the notice is delivered within 24 hours of the electronic transmission. A proposal or modification may be resubmitted prior to the time specified for receipt.

3.8. Questions Concerning This Solicitation

Any questions regarding this solicitation shall be submitted to Greta Perry, Purchasing Agent, at gperry@go-metro.com no later than 4:00 p.m. EST on Friday, November 16, 2018. Telephoned

questions will not be accepted. Proposers shall not contact any other SORTA personnel regarding any aspect of this solicitation. Any proposer found to have had such contact shall be barred from participation in this solicitation and any subsequent contract, either as a prime contractor or subcontractor.

SORTA anticipates that responses to questions submitted will be provided to all known proposers by the close of business on November 21, 2018. If the responses materially alter the terms of this solicitation, they will be incorporated in an amendment to the solicitation. No communication by SORTA or any of its Commissioners, officers, employees, agents or representatives shall alter the terms of this solicitation or bind SORTA in any manner, unless incorporated in such an amendment.

3.9. *Disadvantaged Business Enterprise Participation*

SORTA has not established a goal for Disadvantaged Business Enterprise (DBE) participation for this solicitation. SORTA encourages DBE participation, but it is not required for this solicitation. If you are a DBE or will utilize a DBE for completion of this contract, please complete **Attachment H** and submit it as part of the Business Proposal. .

3.10.   *Evaluation Process and Criteria*

Proposals timely received by SORTA will be evaluated by an evaluation team established by SORTA in accordance with the criteria set forth below. Following an initial evaluation SORTA may eliminate firms it determines do not have a reasonable chance of obtaining the award.

The evaluation team may elect to interview the remaining proposers, in order to clarify their proposals and/or request that the proposers give an oral/visual presentation. Such interviews may be conducted in person and/or telephone or video conference. If such interviews are held, the evaluation team will re-evaluate the proposals of those firms interviewed.

SORTA may also negotiate with proposers in the competitive range. Following such negotiations, SORTA may request one or more of the remaining firms to submit a Best and Final Offer, which will be evaluated by the evaluation team, and a firm selected to be recommended for award

SORTA reserves the right to accept proposals other than the lowest cost offered, reject any and all proposals, or to negotiate separately with any proposer or proposers as deemed to be in SORTA's best interest. SORTA also reserves the right to waive informalities, make an award on the basis of initial proposals received, without discussions or negotiations. Initial proposals, therefore, should represent the proposers' best effort to meet SORTA's needs at a reasonable price.

Proposals will be reviewed and evaluated at each step of the process based upon the following criteria in relative order of importance:

1. **Criterion 1:** Project Approach (include in Technical Volume, Para. 3.4.1.B)
   a. Sub-criterion 1.a: Approach to Delivering a Complete System
   b. Sub-criterion 1.b: Implementation Schedule

2. **Criterion 2:** Staff Qualification and Experience (include in Technical Volume, Para 3.4.1.D)
   a. Sub-criterion 2.a: Key Personnel Experience
      i. Description of abilities, qualifications and experience.
      ii. Attach resumes of key staff to be assigned to this project.
   b. Sub-criterion 2.b: Project Management Structure and Organization Chart
   c. Sub-criterion 2.c: Identify Subcontractor.
      i. Provide qualifications and key personnel, contact information for work to be subcontracted.

3. **Criterion 3:** Firm Qualifications and Experience (include in Technical Volume, Para 3.4.2.C)
   a. Sub-criterion 3.a: Statement of Qualifications

    b. Sub-criterion 3.b: Experience with Similar Applications
      i. Provide status/outcome of projects, at least three, of similar scope.
    c. Sub-criterion 3.c: Experience with Systems Engineering Approach
    d. Sub-criterion 3.d: Sample Reports

 4. **Criterion 4:** Price
    a. See Attachment B Price (Pricing Volume, Section 3.4.2.E). The intent of the price evaluation is to determine which combination of service, qualifications and proposed cost represent the best overall value to SORTA

3.11. *Verification of Proposer Responsibility*

SORTA may undertake such investigations as it deems necessary to determine the ability of each Proposer to perform the work, and the Proposer shall furnish to SORTA all such information and data as SORTA may request for this purpose. SORTA reserves the right to reject any proposal if the evidence submitted by, or investigation of, such proposer fails to satisfy SORTA that such proposer is properly qualified to carry out the obligations of the contract and to complete the work required, hereunder. SORTA may require the proposer to submit any of the following information as part of the evaluation process: (1) proposer's performance record; (2) proposer's certified, audited financial statements for up the three (3) prior years; and (3) such additional information as will satisfy SORTA that the Proposer is adequately prepared to fulfill the contract. SORTA also reserves the right to verify a proposer's indirect cost rates, such as provisional overhead (burden) and General and Administrative (G&A) rates, before or after award of a contract. In this connection, SORTA may request the proposer to provide copies of undisputed audits of the proposed by (1) other FTA grantees; (2) the federal government; or (3) state governments.

3.12. *Contract Award*

SORTA may award a contract to one or more firms. Award will be made to the firm(s) whose proposal, in SORTA's sole judgment, is considered to be most advantageous to SORTA, cost and all other factors considered. SORTA reserves the right to reject any and all proposals and to permit or waive minor informalities, irregularities and errors in proposals. SORTA may elect to make an award on the basis of initial proposals or to proceed with the evaluation process defined below.

3.13. *Protests*

SORTA's policy and procedure for the administrative resolution of protests is set forth in §3.10 of SORTA's Procurement Procedures Manual (PPM). The PPM contains rules for the filing and administration of protests. SORTA shall furnish a copy of §3.10 upon request.

An interested party wishing to protest a matter involving a proposed procurement or contract award, shall file a written submission with the Director of Procurement by certified mail or other delivery method by which receipt can be verified. Electronic submission of protests is not acceptable unless an original signed copy of the protest is received by the Director within 24 hours (not including weekends and holidays) after receipt of the electronic copy. The Director may, however, permit the electronic provision of supplemental information after the initial protest submittal. The protest shall include, at a minimum:

- The name and address of the protesting party and its relationship to the procurement sufficient to establish that the protest is being filed by an interested party;

- Identity of the contact person for the protestor, including name, title, address, telephone, fax and e-mail addresses. If the contact point is a third party representing the protester, the same information must be provided, plus a statement defining the relationship between the protester and the third party;

- Identification of the procurement;

- A description of the nature of the protest, referencing the portion(s) of the solicitation involved;

- Identification of the provision(s) of any law, regulation, or other governance upon which the protest is based;

- A compete discussion of the basis for the protest, including all supporting facts, documents or data;

- A statement of the specific relief requested; and

- A notarized affirmation by the protestor (if an individual) or by an owner or officer of the protestor (if not an individual) as to the truth and accuracy of the statements made in the protest submittal.

The protestor is solely responsible for the completeness and validity of the information provided. Any documents relevant to the protest should be attached to the written submission. Documents which are readily available on the Internet may be referenced to an appropriate link.

Chapter VII, Sec. 1.b. of the Federal Transit Administration (FTA) Circular 4220.1F addresses protests where federal funds are involved. The FTA will only review protests regarding the alleged failure of the grantee to have a written protest procedure; an alleged failure to follow such procedure; or violations of Federal law or regulation. The FTA is not obligated to review every protest appealed to it, but will only address appeals involving issues important to the FTA's overall public transportation program. A protestor must exhaust all administrative remedies with SORTA before pursuing a protest with the FTA.

3.14. *Confidential Information*

All proposals and documents submitted in response to this RFP are subject to the disclosure provisions of the Ohio Public Records provisions of Ohio Revised Code Chapter 149.43. Information that a proposer believes is exempted from disclosure under the Ohio Public Records Laws, i.e., trade secrets, copyrighted material, infrastructure record, or security record, should be set apart within the Proposal on separate pages with a heading that identifies the information and the reason the proposer believes it is exempt from disclosure. Any such separate pages designated for exempt information should not contain material that is subject to disclosure under the Ohio Public Records Laws. All information believed to be exempt under the Ohio Public Records Laws should be placed at the end of the designated section of the Proposal for easy reference and removal. Any page limits defined herein will be adjusted if the exempt information creates extra pagination. Any blanket claim of exemption from disclosure or inclusion in a claim for disclosure of information, which is patently subject to disclosure, or any other such claim which may constitute an abuse of the right of exemption may, at SORTA's sole discretion, render the entire proposal subject to disclosure.

SORTA shall have no duty to defend the rights of the proposer, or any of its agents or affiliates, in any records requested to be disclosed. Upon receipt of a public records request, SORTA will notify the proposer of its intent to release records to the requestor. The proposer shall have a maximum of five (5) business days beginning with the date it receives notification to respond to in writing, by either accommodating the requestor, providing redacted copies of the documents, or pursuing legal remedies to stop SORTA's release of requested information. By submitting a proposal, the proposer agrees that said notification shall relieve SORTA of any further obligation under any claim of proposer, or any of its agents or affiliates, in any jurisdiction in connection with the disclosure of such records. Proposer and its agents and affiliates shall have the right to pursue legal and/or equitable remedies to stop or limit disclosure at its sole expense. Proposer agrees to defend SORTA against any third party claim related to Proposer's designation of certain records as exempt from public disclosure (Claim), and will hold SORTA, its officers, employees and agents harmless for any award to a plaintiff for damages, costs and reasonable attorney's fees, incurred by SORTA by reason of such Claim. SORTA will promptly notify the proposer of the Claim, and will allow the proposer to control the defense and settlement, thereof.

3.15. Organizational Conflicts of Interest

Unless specifically exempted by SORTA, any contractor, subcontractor, subsidiary, or other entity which experiences an organizational or personal conflict of interest (Conflict") is precluded from participation in any procurement affected by the Conflict. This prohibition also applies to any contractor, subcontractor, subsidiary, or other entity which is legally related to such entity or party.

If a bidder or proposer is uncertain whether or not a conflict exists, it should promptly contact SORTA's Director of Procurement for a determination. Such inquiries and responses will not be published to other potential bidders. FTA Circular 4220.1F Paragraph VI.2a(4)(h) defines prohibitions on personal and organizational conflicts of interest, which are further discussed in §2.4.2.2.2 and Appendix B.10 of FTA's Best Practices Procurement Manual. In general, a personal conflict of interest reflects an individual's ability to influence the award of a contract and to profit from the result of that award. An organizational conflict exists when any of the following exist: (1) a firm has access to non-public information as the result of performing a government contract and can use that information to advantage in competing for another government contract; (2) a firm influences the ground rules (specification or contractual terms) for a government solicitation, potentially biasing those ground rules in its own favor; or (3) a firm's work under one government contract requires it to evaluate itself or its work product under another contract, impairing its objectivity.

Should a potential bidder or proposer be aware of a potential Conflict, it shall identify the potential Conflict in its proposal, together with measures it proposes to remove or mitigate the Conflict. Should any person or entity planning to submit a bid or proposal hereunder be aware of any situation which may fall under the above prohibitions, it shall, no later than the time of submittal of its offer, identify in writing to SORTA's Director of Procurement (1) the nature of the potential conflict; (2) steps it may take to mitigate the conflict; and (3) request a waiver of the conflict. The decision of the Director of Procurement regarding such potential conflicts and possible mitigation measures shall be final. Failure to submit such as statement before or with an offer shall be deemed a certification by the bidder or proposer that, to the best of its knowledge and belief, no such Conflict exists. In the event that a bidder or proposer fails to disclose such Conflict as required herein, its offer may be rejected. Should a bidder or proposer become aware of a potential Conflict after the submittal of an offer, it shall promptly notify the Director of Procurement in writing, providing the information required above together with a statement of why the Conflict could not have been identified prior to submittal of the offer.

(END OF INSTRUCTIONS TO PROPOSERS)

4.0 GENERAL TERMS AND CONDITIONS

The following General Terms and Conditions are hereby incorporated into and made a part of this Contract, except as they may be modified by the Special Provisions included, herein.

4.1. General Information

The Southwest Ohio Regional Transit Authority ("SORTA"), with its administrative offices located at 602 Main Street, Suite 1100, Cincinnati, Ohio 45202, is a regional transit authority and a political subdivision of the State of Ohio organized and operating under Ohio Revised Code Sections 306.30 et seq., and funded in part by grants from the Federal Transit Administration ("FTA") of the United States Department of Transportation.

The term "Contractor" as used herein, shall mean the firm or individual entering into a contract with SORTA for the work defined in the contract, and specifically shall include the term "Consultant." Contractor acknowledges and agrees that it is an independent contractor and neither it nor any of its employees shall be considered employees of SORTA. The term "Subcontractor" as used herein shall refer to firms or individuals which directly or indirectly enter into a contract with the Contractor for performance of a portion of the work defined in the Contractor's contract with SORTA, and shall include sub-consultants, vendors, suppliers, but not the employees of the Contractor or any Subcontractor. By entering into this contract, Contractor represents and warrants that it is fully qualified to perform the services required hereunder and possesses any necessary licenses or permits and shall maintain such licenses and permits during the term of this contract and any warranty period.

4.2. FTA Approval

In the event that SORTA is required to obtain Federal Transit Administration (FTA) approval prior to entering into this Contract, the Contract shall be deemed subject to the condition precedent of FTA approval, and the failure to obtain such approval, where required, shall terminate all the Contractor's right hereunder and bar it from the right to any mortgage, lien or other security interest in any way arising out of or relating to the project.

4.3. Payment

As specified in the attached, Invoice Milestones, Schedule, Incentives and Penalties Clause, SORTA shall pay the Contractor at the milestone events listed in Table 1 upon acceptance of the work specified. Final payment will occur upon Final Acceptance Test and shall include the provision of any documents relating to warranties, releases of liability, and operating and parts manuals as appropriate and any other information agreed to. Payment to Contractor will generally be made within thirty (30) calendar days following approval by SORTA of an invoice. Such approval or payment shall not constitute acceptance or approval of the services and/or materials invoiced. Late payments shall accrue no interest.

Within ten (10) working days after receiving payment from SORTA, Contractor shall pay each sub-consultant, subcontractor, or material supplier (collectively "Subcontractors") all amounts due and invoiced by the subcontractor and paid to the Contractor by SORTA.

If this Contract (or a Task Order) specifies that SORTA will withhold from Contractor a specific percentage or specific dollar amount of the work as a retainer, and/or if Contractor withholds, through agreement with any Subcontractor, a specific percentage or specific dollar amount of the subcontracted work or materials from any Subcontractor, Contractor shall release any and all retainage due to each such Subcontractor within ten (10) working days following the completion of that Subcontractor's work hereunder.

Payments hereunder shall only be made upon invoices properly submitted hereunder. Unless otherwise specified herein, invoices shall be submitted monthly for goods or services accepted by SORTA during the preceding month. Contractor shall include in each invoice all amounts properly due to Subcontractors that are properly and timely submitted by them. Each invoice submitted shall identify the funding

authorization (purchase order) number assigned to this contract. Each invoice shall be supported by satisfactory documentation as to the time expended and the Services performed during that time. Unless otherwise directed by SORTA, all invoices shall be mailed to: SORTA, Attn: Accounts Payable Department, 602 Main Street, Suite 1100, Cincinnati, Ohio 45202.

4.4. Establishment and Maintenance of Accounts

The Contractor shall establish and maintain a separate set of accounts, or within the framework of an established accounting system, accounts for the Contract in a manner consistent with Office of Management and Budget Circular A-87, as amended.

4.5. Documentation of Costs and Expenses

All costs charged to the Contract, including any approved services contributed by the Contractor or others, shall be supported by properly executed payrolls, time records, invoices, contracts, and/or vouchers evidencing in detail the nature and propriety of the charges.

All checks, payrolls, invoices, contracts, vouchers, others, or other accounting documents pertaining in whole or in part to the Contract, shall be clearly identified, readily accessible, and to the extent feasible, kept separate and apart from all other such documents. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of the final payment, and other pending matters are closed under this contract.

4.6. Taxes

SORTA is exempt from payment of the State of Ohio sales tax and Federal excise taxes, and all pricing and invoicing under this contract shall exclude such items. Contractor shall be solely responsible for payment of all taxes accruing from its activities under this contract, including, but not by way of limitation, income taxes, payroll taxes, or other federal, state or local taxes relating to the generation of income or the employment of individuals.

4.7. Audits and Inspections

The Contractor shall permit, and shall require its subcontractors to permit, the Secretary of the U.S. Department of Transportation and the Comptroller General of the United States, SORTA, or any of their duly authorized representatives to have access to all work, materials, payrolls, books, documents, papers, and other data and records directly pertinent to this contract, for the purpose of making audit, examination, excerpts, and transcriptions. The Contractor shall maintain all required records for three (3) years after final payment and other pending matters are closed under this contract.

4.8. Insurance

Contractor shall procure and maintain at its own cost and expense, during the entire period of the performance under this Agreement, sufficient types and amounts of insurance to protect the interest of SORTA and the Federal Transit Administration with insurance companies authorized to operate in the State of Ohio, possessing not less than an A- rating from A.M. Best Company and otherwise acceptable to SORTA. The following represents SORTA's minimum insurance requirements, which shall apply unless modified in the Special Provisions of this Agreement:

- **Workers Compensation:** Statutory for each state in which work is to be performed hereunder.
- **Employer's Liability:** $1,000,000 per occurrence.
- **Comprehensive General Liability:** Not less than $1,000,000 of combined bodily injury and property damage coverage per occurrence, including contingent liability coverage.
- **Automobile:** Not less than $1,000,000 per occurrence, covering all owned, non-owned and hired vehicles used in connection with the work.

- **Owner's Protective Liability Insurance:** To be issued in the name of SORTA, in an amount not less than $1,000,000 per occurrence. The Contractor shall furnish a policy of Owner's Protective Liability Insurance, as set forth herein. This policy must be endorsed to indicate that any premium, whether deposit or final, will be the sole obligation of the Contractor.

With respect to coverage other than Workers' Compensation and, if required, Professional Liability Insurance, SORTA shall be named as an additional insured. Within ten (10) working days of Notice of Award of this Contract, Contractor shall provide SORTA with Certificates of Insurance reflecting the coverages and limits of liability provided. SORTA reserves the right to require the Contractor to furnish copies of the policies represented by the Certificates. No such insurance coverage may be cancelled or altered in a manner affecting SORTA's rights thereunder, without 30 days' advance written notice to SORTA.

Contractor shall not commence its work hereunder, until all such coverages have been obtained and are in full force and effect. Failure to obtain and maintain all such coverages throughout the course of this contract shall be deemed an act of default on the part of the Contractor.

4.9. Communications

Communications between the parties in connection with this contract shall be in writing and, unless otherwise stated, shall be effective on receipt. However, communications by registered mail addressed to the employees of SORTA and of the Contractor designated to receive communications shall be effective on mailing. Telephone calls may be used to expedite communications but shall not be official communication unless confirmed in writing. Electronic communications shall be effective upon documented receipt by the non-sending party but must be confirmed by hard copy within 24 hours of transmission.

4.10.   Assignment of Contract

Contractor shall not assign, sublet, sell, transfer, or otherwise dispose of any interest in this Contract without the prior approval of SORTA.

Contractor shall not voluntarily assign any interest in this Contract and shall not transfer any interest in the same (whether by assignment or novation), except as provided herein, without the prior written consent of SORTA; provided, however, that claims for money due or to become due to Contractor from SORTA under this Contract may be assigned to a bank, trust company, or other financial institution without such approval, but subject to any claims SORTA may have against Contractor. Notice of any such assignment or transfer shall be furnished promptly to SORTA. Any involuntary assignment or transfer of any portion of Contractor's interest in this contract to a third party as the result of bankruptcy, insolvency, by judicial order, or by operation of law shall be grounds for the termination of this contract for default.

SORTA specifically reserves the right to assign part or all of the base or any option contract rights, supplies, equipment, or services (collectively "Rights") to any other public transportation agency or governmental entity. Such assignment shall be in accordance with FTA Circular 4220.1F, §V7(a)(2). The assignment shall be in writing, signed by SORTA and the assignee and acknowledged by the contractor. Any Rights so assigned shall be subject to a separate contract between the Contractor and SORTA's assignee, and SORTA shall have no further obligations to the Contractor with respect to such assigned Rights.

4.11.   Personnel

The Contractor represents that it has, or will secure at its own expense, all personnel required in performing the services under the contract.

All of the services required by the Contract will be performed by the Contractor or under its competent supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized under state and local law to perform such services.

Work or services covered by the Contract may not be subcontracted without the prior written approval of SORTA. To the extent such subcontracted Work is included in the Contractor's bid or final proposal as accepted by SORTA, it is deemed to be approved.

4.12.   Access to Property

SORTA shall assist Contractor, as required, in gaining access to property necessary in the performance of the services, hereunder. If the work hereunder, requires the Contractor to enter SORTA's property, Contractor's personnel (including those of any Subcontractor) shall comply with all SORTA policies and regulations regarding activity on its property, as applied to SORTA's own personnel including, but not by way of limitation, those addressing safety and security issues. Any violation of this requirement shall be grounds for removal of the violating individual from SORTA's property.

4.13.   Data to Be Furnished to Contractor

If the services to be performed hereunder are dependent upon SORTA furnishing data and information to the Contractor, all information, data reports records, etc. that are existing, available, and necessary for the carrying out of the work shall, unless otherwise specified, be furnished to the Contractor without charge and in timely fashion by SORTA. Contractor shall use such data and information only in the performance of this contract and shall not, without SORTA's prior written permission, furnish any such data and information to third parties except as required for the performance of services, hereunder.

4.14.   Reports and Information

The Contractor shall, at such times and in such manner as SORTA may require, furnish SORTA with periodic reports and statements pertaining to the approved activities and annual work program and other related matters covered, hereunder.

4.15.   Ownership of Documents and Work Products

All work products produced by, for or on behalf of Contractor pursuant to this Agreement, shall become the sole property of SORTA in perpetuity, and Contractor hereby forever assigns to SORTA and its successors and assigns and hereby agrees to cause any third parties producing any such work products for or on behalf of Contractor to forever assign to SORTA and its successors and assigns, all of such assignor's worldwide right, title and interest in and to such work products and any related intellectual property rights related thereto, and in and to any and all renewals and extensions thereof, all of which shall be held and enjoyed by SORTA, its successors and assigns as fully and entirely as the same would have been held and enjoyed by such assignor had the foregoing assignment or contemplated assignment not been made.

Work products include such items as documents, field notes, records, computations, calculations, work sheets, sketches, drawings, specifications, cost estimates, laboratory data, test results, correspondence and all other products resulting from the work performed by the Contractor under this Agreement. Final payment by SORTA to Contractor shall be withheld until such work products are transferred to SORTA by Contractor. All tangible personal property purchased by Contractor and paid for by SORTA as a direct contract expense shall immediately become the property of SORTA. Contractor shall be authorized to use said tangible personal property for SORTA's benefit until termination or expiration of the Contract or such earlier time that SORTA requests that Contractor return such property to SORTA.

4.16.   Copyrights, Publication, Reproduction, and Use of Material

No written material, in any medium or format produced in whole or in part under the Contract shall be subject to copyright in the United States or in any other country. SORTA and the Federal Transit Administration shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any reports, drawings, designs, data, or other copyrightable materials prepared under this Contract.

No reports, information, data, etc., given to, or prepared or assembled by, Contractor under this Agreement shall be made available to any individual or organization by Contractor without prior written approval by SORTA.

4.17.   Public Records Act

Contractor acknowledges that SORTA is a public entity subject to the requirements of the Ohio Public Records Act (Ch. 149.43, Ohio Revised Code) and that documents prepared by Contractor may be subject to public disclosure thereunder. Contractor shall clearly identify any documents prepared by it in connection with this contract which it believes to be excluded from disclosure under the Act. SORTA will not recognize or withhold from disclosure any documents so marked in a general or indiscriminate fashion or containing information which is patently subject to disclosure under the Act. Should Contractor request SORTA to exclude documents from disclosure, and should the failure to disclose be challenged, Contractor shall be solely responsible for defending such withholding, and shall indemnify SORTA and hold it harmless for any costs incurred thereby, including but not limited to any penalties imposed on SORTA as the result of such non-disclosure.

4.18.   Patent Infringement

SORTA will notify the Contractor of any impending claim or suit alleging in violation of one or more patents. The Contractor shall defend any such suit or proceeding brought against SORTA based on a claim that any equipment, process or other item or any part thereof (collectively "Item") furnished under this contract constitutes an infringement of any patent, and the Contractor shall pay all damages and cost awarded therein, excluding incidental and consequential damages, against SORTA. SORTA shall fully cooperate in the defense of any such suit, and provide any readily available information relating thereto. SORTA specifically reserves the right to employ its own legal counsel in connection with any matter addressed herein. Should said Item or any part thereof be held to constitute infringement and use of said Item in whole or in part is enjoined, the Contractor shall, at its own expense and at its option, either procure for SORTA the right to continue using said item, or replace same with a non-infringing Item, or modify the existing Item so it becomes no infringing. No delay to completion of Contractor's services hereunder shall be waived due to the existence of such suit or claim

4.19.   Indemnification

Contractor shall indemnify SORTA and SORTA's trustees, officers, employees or agents against and hold them harmless from all losses, damages, costs, expenses, claims, suits and judgments in law and equity, that may at any time arise, or may be set up, by any breach of any express or implied warranties arising out of the furnishing of the equipment, materials, and/or supplies; or any infringement of the patent rights of any person or persons in consequence of the use by SORTA or by any of its employees or agents of the equipment, materials, and/or supplies under this agreement; or arising out of any other failure of Contractor to meet the obligations of the contract. SORTA will give Contractor prompt notice in writing of the institution of any suit or proceeding and permit the Contractor, through its counsel, to defend same and will give all needed information, assistance and authority to enable the Contractor to do so. The Contractor also assumes the risk of liability for and shall indemnify, defend, protect and save harmless SORTA, its trustees, officers, agents and employees form and against any and all claims, damages, suits, judgments, liabilities, losses, court costs and expenses including attorney's fees for all injury, sickness, disease, destruction including damages for death of any person or persons whosoever and to any

property whatsoever arising out of or in the course of performance of this Agreement by the Contractor's employees, agents, representatives, and subcontractors of any tier.

4.20. Warranty

Unless otherwise specified herein, all services, supplies and equipment furnished by the Contractor hereunder shall be warranted against any defects in material or workmanship for a period of one year from the date of final payment to the Contractor under this Contract. Upon notice by SORTA of any such defect, the Contractor shall promptly correct, repair or replace the defective items at no additional cost to SORTA. Should SORTA, in its sole judgment, direct the Contractor not to correct, repair or replace such defect, the Contract price shall be equitably adjusted.

4.21. Contract Modifications

SORTA may at any time, by a written order, and without notice to sureties, if any, make changes within the general scope of this Contract. Such change shall serve to modify this Contract to the extent necessary to execute the change as directed. If any such change causes an increase or decrease in the cost of, or the time required for, the performance of any part of the work under this contract, whether changed or not changed by the order, SORTA shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract accordingly. The Contractor must assert its right to an adjustment under this article within three working days from the date of receipt of the written order. Failure by contractor to give timely notice of the change could constitute waiver of a claim for an equitable adjustment. However, if SORTA decides that the facts justify it, SORTA may receive and act upon a proposal submitted at any time before final payment of the contract. If the Contractor's proposal includes the cost of equipment or materials made obsolete or excess by the change, SORTA shall have the right to prescribe the manner of the disposition of such equipment or materials. Failure to agree to any adjustment shall be a dispute under the Disputes article. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

4.22. Disputes and Remedies

It is the intent of the parties to resolve disputes in the most efficient and amicable way possible. If a dispute cannot be resolved at the project manager level in a reasonable amount of time, the project managers may agree to refer it to their immediate supervisors. This referral must be in writing. Within thirty (30) calendar days of such notice, the supervisors will, if agreement is not reached, refer the dispute to SORTA's CEO and General Manager (CEO) who shall issue a written decision within thirty (30) calendar days and mail or otherwise furnish a copy thereof to the Contractor. Prior to the decision of the CEO, the Contractor shall be afforded an opportunity to appear before the CEO, and to offer documentary evidence in support of its position. The decisions of the CEO shall be final and conclusive, unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith. Pending final resolution of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract in accord with SORTA's position in the dispute; such continued performance will not in any manner imply that the Contractor accepts or agrees with SORTA's position nor does it prejudice the Contractor's rights hereunder.

Granting or acceptance of extensions of time to complete the Work or furnish the labor, supplies, materials, or equipment required under the Contract will not release the Contractor or its surety from their obligations hereunder.

4.23. Compliance with Federal Laws, Regulations, & Policies

This Contract is subject to the applicable terms and conditions of SORTA's financial assistance grant contract with the Federal Transit Administration (FTA), United States Department of Transportation (DOT) which reflects the requirements of the FTA Master Agreement (Currently MA-19) issued annually on October 1. The Contractor understands and shall comply with all applicable Federal laws, regulations,

policies, and related administrative practices applicable to this contract, as well as any changes to these Federal requirements, which may be modified from time to time during the term of this Contract. The changed requirements will apply to the contract, as required.

The provisions set forth or incorporated into this Contract include, in part, certain standard terms and conditions required by DOT, whether or not expressly set forth herein. All contractual provisions required by DOT, as set forth in FTA Circular C4220.1F, as it may be amended from time to time, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all DOT mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any SORTA requests which would cause SORTA to be in violation of the DOT terms and conditions.

4.24. Third Party Liability

Nothing contained in this Agreement is intended to or shall have the effect of creating any rights in any third party against SORTA. The inclusion of the Agreement or any part thereof in any other document shall not be deemed to be creating or incorporating any obligation, duty, or liability on the part of SORTA. The Contractor shall indemnify SORTA in accordance with the provisions of this paragraph against any claim made by any third party claiming rights under the Agreement.

4.25. Joint And Several Liability

If the Contractor is a joint venture or partnership, each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of the Contractor that are assumed under or arise out of this Agreement. Each of such venturers or partners waives notice of the breach or non-performance of any undertaking or obligation of the Contractor contained in, resulting from or assumed under the Agreement, and the failure to give any such notice shall not affect or impair such venturer's or partner's joint and several liability hereunder.

4.26. Interest of Public Officials

No member, officer, employee or agent of SORTA shall have any interest, direct or indirect, in this Contract or the proceeds, thereof.

4.27. Covenant Against Gratuities

The Contractor shall not offer or provide gifts, favors, entertainment or any other gratuities of more than nominal value to any trustee, officer, employee or agent of SORTA during the period of this contract or for a period of one (1) year, thereafter.

4.28. Time Is Of The Essence

Time is of the essence for the work described in this contract. It is anticipated by the parties that all work described herein will be completed within the schedule established hereunder, and that any delay in the completion of the work described herein shall constitute a material breach of this contract.
In the event that the services hereunder, are not performed in accordance with the schedule established herein, including any modifications thereto, SORTA may terminate this Contract or the affected portion thereof for default; procure substitute services elsewhere; and recover from the Contractor any increased costs thereby incurred together with all resulting incidental and consequential damages.
The Contractor shall be entitled to a reasonable extension of time from SORTA for any delays beyond the reasonable anticipation and control of the Contractor and its subcontractors.

4.29. Environmental & Sustainability Management System

The Southwest Ohio Regional Transit Authority (SORTA) has adopted an Environmental Policy Statement, which may be found on its website at http://www.go-metro.com/about-metro/about2/going-

green, and is a signatory to the American Public Transportation Association's Sustainability Commitment. Accordingly, SORTA encourages its suppliers and contractors to perform its contracts in accordance with the highest level of environmental responsibility and sustainability.

4.30. Binding Agreement

This Agreement is binding upon and shall inure to the benefit of the parties hereto and their successors and permitted assigns but shall not inure to the benefit of any third party or other person.

4.31. Applicable Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the State of Ohio. Any suit or proceeding arising out of, relating to or mentioning this Agreement shall be commenced only in a state or Federal court located in Hamilton County, Ohio, and each party to this Agreement hereby consents to the jurisdiction and venue of such court.

4.32. Recovered Materials

The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including, but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

4.33. Employee Diversity

Contractor hereby represents and certifies that it will, in the performance of its obligations hereunder, utilize its best efforts to utilize competent individuals including minorities and women at all levels. Contractor shall seek to provide opportunities for the professional growth of such individuals through such utilization. Contractor shall, to the greatest extent consistent with laws and regulations, maintain records of the employment, training and mentoring efforts extended to such individuals in connection with this contract, and make such records available to SORTA upon request.

4.34. Severability

In the event any provision of this Contract is declared or determined by judicial decision to be unlawful, invalid or unconstitutional, such declaration shall not affect, in any manner, the legality of the remaining provisions of the Contract unaffected by such determination, and each provision of the Contract will be and is deemed to be separate and severable from each other provision.

4.35. Subcontractors

Contractor may employ subcontractors, sub-consultants and material men (collectively "Subcontractors") to perform work hereunder only with the prior approval of SORTA, which approval shall not be unreasonably withheld. Any Subcontractors identified in Contractor's final bid or proposal, as accepted by SORTA, shall be deemed to be so approved. SORTA shall promptly notify the Contractor in writing if SORTA, after due investigation, has reasonable objection to and does not approve any subcontractor. The Contractor shall be fully responsible to SORTA for the acts and omissions of all Subcontractors, and of persons either directly or indirectly employed by Subcontractors, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.

The Contractor shall flow down all appropriate provisions of this Contract to subcontractors of all tiers relative to compliance by each Subcontractor with the applicable provisions of this Contract. The following are required federal clauses:

4.36.   Incorporation of FTA Terms

The preceding provisions include, in part, certain Standard Terms & Conditions required by USDOT, whether or not expressly stated in the preceding contract provisions. All USDOT-required contractual provisions, as stated in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The contractor shall not perform any act, fail to perform any act, or refuse to comply with any request that would cause the recipient to be in violation of FTA terms and conditions.

4.37. Civil Rights Requirements

The Recipient understands and agrees that it must comply with applicable Federal civil rights laws and regulations, and follow applicable Federal guidance, except as the Federal Government determines otherwise in writing. Therefore, unless a Recipient or Program, including an Indian Tribe or the Tribal Transit Program, is specifically exempted from a civil rights statute, FTA requires compliance with that civil rights statute, including compliance with equity in service:

a.   Nondiscrimination in Federal Public Transportation Programs. The Recipient agrees to, and assures that each Third Party Participant will, comply with Federal transit law, 49 U.S.C. § 5332 (FTA's "Nondiscrimination" statute):

    (1) FTA's "Nondiscrimination" statute prohibits discrimination on the basis of:
        (a) Race,
        (b) Color,
        (c) Religion,
        (d) National origin,
        (e) Sex,
        (f) Disability,
        (g) Age, or
        (h) Gender identity and
    (2) The FTA "Nondiscrimination" statute's prohibition against discrimination includes:
        (a) Exclusion from participation,
        (b) Denial of program benefits, or
        (c) Discrimination, including discrimination in employment or business opportunity,
    (3) Except as FTA determines otherwise in writing:
        (a) General. Follow:
            1 The most recent edition of FTA Circular 4702.1, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, and guidance, and

            2 Other applicable Federal guidance that may be issued, but (b) Exception for the Tribal Transit Program. FTA does not require an Indian Tribe to comply with FTA program-specific guidelines for Title VI when administering its projects funded under the Tribal Transit Program,

b.   Nondiscrimination – Title VI of the Civil Rights Act. The Recipient agrees to, and assures that each Third Party Participant will:
    (1) Prohibit discrimination based on:
        (a) Race,
        (b) Color, or
        (c) National origin,
    (2) Comply with:
        (a) Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d et seq.,

(b) U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964," 49 C.F.R. part 21, and

(c) Federal transit law, specifically 49 U.S.C. § 5332, as stated in the preceding section a, and

(3) Except as FTA determines otherwise in writing, follow:

(a) The most recent edition of FTA Circular 4702.1, "Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, and guidance.

(b) U.S. DOJ, "Guidelines for the enforcement of Title VI, Civil Rights Act of 1964," 28 C.F.R. § 50.3, and (c) Other applicable Federal guidance that may be issued,

c.   Equal Employment Opportunity.

(1) Federal Requirements and Guidance. The Recipient agrees to, and assures that each Third Party Participant will, prohibit discrimination on the basis of race, color, religion, sex, or national origin, and:

(a) Comply with Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e et seq.,

(b) Facilitate compliance with Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order No. 11246, Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note,

(c) Comply with Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a, and

(d) Comply with other applicable EEO laws and regulations, as provided in Federal guidance, including laws and regulations prohibiting discrimination on the basis of disability, except as the Federal Government determines otherwise in writing,

(2) General. The Recipient agrees to:

(a) Ensure that applicants for employment are employed and employees are treated during employment without discrimination on the basis of their:

1 Race,
2 Color,
3 Religion,
4 Sex,
5 Disability,
6 Age, or
7 National origin,

(b) Take affirmative action that includes, but is not limited to:

1 Recruitment advertising,
2 Recruitment,
3 Employment,
4 Rates of pay,
5 Other forms of compensation,
6 Selection for training, including apprenticeship,
7 Upgrading,
8 Transfers,
9 Demotions,
10 Layoffs, and
11 Terminations, but

(b) Indian Tribe. Title VII of the Civil Rights Act of 1964, as amended, exempts Indian Tribes under the definition of "Employer".

(3) Equal Employment Opportunity Requirements for Construction Activities. In addition to the foregoing, when undertaking "construction" as recognized by the U.S. Department of Labor (U.S. DOL), the Recipient agrees to comply, and assures the compliance of each Third Party Participant, with:

    (a) U.S. DOL regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and
    (b) Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order No. 11246, Relating to Equal Employment Opportunity," 42 U.S.C.§ 2000e note,

d. Disadvantaged Business Enterprise. To the extent authorized by applicable Federal law, the Recipient agrees to facilitate, and assures that each Third Party Participant will facilitate, participation by small business concerns owned and controlled by socially and economically disadvantaged individuals, also referred to as "Disadvantaged Business Enterprises" (DBEs), in the Project as follows:
  (1) Requirements. The Recipient agrees to comply with:
    (a) Section 1101(b) of MAP-21, 23 U.S.C. § 101 note,
    (b) U.S. DOT regulations, "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs," 49 C.F.R. part 26, and
    (c) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a,(2) Assurance. As required by 49 C.F.R.§ 26.13(a), (b) DBE Program Requirements. Recipients receiving planning, capital and/or operating assistance that will award prime third party contracts exceeding $250,000 in a Federal fiscal year must: 1 Have a DBE program meeting the requirements of 49 C.F.R. part 26, 2 Implement a DBE program approved by FTA, and 3 Establish an annual DBE participation goal, (c) Special Requirements for a Transit Vehicle Manufacturer. The Recipient understands and agrees that each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has complied with the requirements of 49 C.F.R. part 26,
    (d) the Recipient provides assurance that: The Recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 C.F.R. part 26. The Recipient shall take all necessary and reasonable steps under 49 C.F.R. part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The Recipient's DBE program, as required by 49 C.F.R. part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the Recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under 49 C.F.R. part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. § 1001 and/or the Program Fraud Civil Remedies Act of 1986, 31 U.S.C. § 3801 et seq.,

  (2) Exception for the Tribal Transit Program. FTA exempts Indian tribes from the Disadvantaged Business Enterprise regulations at 49 C.F.R. part 26 under MAP-21 and previous legislation,

e. Nondiscrimination on the Basis of Sex. The Recipient agrees to comply with Federal prohibitions against discrimination on the basis of sex, including:
  (1) Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq.,
  (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. part 25, and
  (3) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a,

f. Nondiscrimination on the Basis of Age. The Recipient agrees to comply with Federal prohibitions against discrimination on the basis of age, including:
  (1) The Age Discrimination in Employment Act (ADEA), 29 U.S.C. §§ 621 – 634, which prohibits discrimination on the basis of age,
  (2) U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, which implements the ADEA,

(3) The Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., which prohibits discrimination against individuals on the basis of age in the administration of programs or activities receiving Federal funds,

(4) U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, which implements the Age Discrimination Act of 1975, and

(5) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a,

g.   Nondiscrimination on the Basis of Disability. The Recipient agrees to comply with the following Federal prohibitions pertaining to discrimination against seniors or individuals with disabilities:

(1) Federal laws, including:

(a) Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of disability in the administration of federally funded programs or activities,

(b) The Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities, 1 General. Titles I, II, and III of the ADA apply to FTA Recipients, but 2 Indian Tribes. While Titles II and III of the ADA apply to Indian Tribes, Title I of the ADA exempts Indian Tribes from the definition of "employer,"

(c) The Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities,

(d) Federal transit law, specifically 49 U.S.C. § 5332, which now includes disability as a prohibited basis for discrimination, and

(e) Other applicable laws and amendments pertaining to access for elderly individuals or individuals with disabilities, (2) Federal regulations, including: (a) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. part 37, (b) U.S. DOT regulations, "Nondiscrimination on the Basis of Disability in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. part 27, (c) U.S. DOT regulations, "Transportation for Individuals with Disabilities: Passenger Vessels," 49 C.F.R. part 39, (d) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB) and U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. part 1192 and 49 C.F.R. part 38, (e) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. part 35, (f) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. part 36, (g) U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. part 1630, (h) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for Persons with Disabilities," 47 C.F.R. part 64, Subpart F, (i) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. part 1194, and (j) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. part 609, and (3) Other applicable Federal civil rights and nondiscrimination guidance,

h.   Drug or Alcohol Abuse - Confidentiality and Other Civil Rights Protections. The Recipient agrees to comply with the confidentiality and civil rights protections of:

(1) The Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. § 1101 et seq.,

(2) The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended, 42 U.S.C. § 4541 et seq., and

(3) The Public Health Service Act, as amended, 42 U.S.C. §§ 290dd – 290dd-2,

i.   Access to Services for People with Limited English Proficiency. Except as the Federal Government determines otherwise in writing, the Recipient agrees to promote accessibility of public transportation services to people whose understanding of English is limited by following:

1) Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," August 11, 2000, 42 U.S.C. § 2000d-1 note, and

(2) U.S. DOT Notice, "DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Persons," 70 Fed. Reg. 74087, December 14, 2005,

j.   Other Nondiscrimination Laws. Except as the Federal Government determines otherwise in writing, the Recipient agrees to:

(1) Comply with other applicable Federal nondiscrimination laws and regulations, and

(2) Follow Federal guidance prohibiting discrimination.

k.   Remedies. Remedies for failure to comply with applicable Federal Civil Rights laws and Federal regulations may be enforced as provided in those Federal laws or Federal regulations.

4.38. Breaches and Disputes

Disputes arising in the performance of this contract which are not resolved by agreement of the parties shall be decided in writing by the recipient's authorized representative. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, contractor mails or otherwise furnishes a written appeal to the recipient's CEO. In connection with such appeal, contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the recipient's CEO shall be binding upon contractor and contractor shall abide by the decision. FTA has a vested interest in the settlement of any violation of Federal law including the the False Claims Act, 31 U.S.C. § 3729.

Performance During Dispute - Unless otherwise directed by the recipient, contractor shall continue performance under this contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within ten days after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the recipient and contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the residing State.

Rights and Remedies - Duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the recipient or contractor shall constitute a waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

4.39.   Disadvantaged Business Enterprise

a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The recipient's overall goal for DBE participation is listed elsewhere. If a separate contract goal for DBE participation has been established for this procurement, it is listed elsewhere.

b. The contractor shall not discriminate on the basis of race, color, religion, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract

or such other remedy as the municipal corporation deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

c. If a separate contract goal has been established, Bidders/offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53.

d. If no separate contract goal has been established, the successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

e. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the recipient. In addition, the contractor may not hold retainage from its subcontractors or must return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed or must return any retainage payments to those subcontractors within 30 days after incremental acceptance of the subcontractor's work by the recipient and contractor's receipt of the partial retainage payment related to the subcontractor's work.

f. The contractor must promptly notify the recipient whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the recipient.

4.40.   *Prompt Payment*

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contract receives from the Recipient. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractors work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Recipient. This clause applies to both DBE and non-DBE subcontracts.

4.41.   *Patent and Rights in Data*

Patent Rights
A.   General. The Recipient agrees that:
        (1) Depending on the nature of the Project, the Federal Government may acquire patent rights when the Recipient or Third Party Participant produces a patented or patentable:
                (a) Invention,
                (b) Improvement, or
                (c) Discovery,
        (2) The Federal Government's rights arise when the patent or patentable information is:
                (a) Conceived under the Project, or
                (b) Reduced to practice under the Project, and
        (3) When a patent is issued or patented information becomes available as described in Patent Rights section A(2), the Recipient agrees to:
                (a) Notify FTA immediately, and
                (b) Provide a detailed report satisfactory to FTA,

B.   Federal Rights. The Recipient agrees that:

(1) Its rights and responsibilities, and the rights and responsibilities of each Third Party Participant, in that federally funded invention, improvement, or discovery will be determined as provided by applicable Federal laws, regulations, and guidance, including any waiver thereof, and
(2) Unless the Federal Government determines otherwise in writing, irrespective of the Recipient's status or the status of any Third Party Participant as a large business, a small business, a State government, a State instrumentality, a local government, an Indian tribe, a nonprofit organization, an institution of higher education, or an individual, the Recipient agrees to transmit the Federal Government's patent rights to FTA as specified in:

> (a) 35 U.S.C. § 200 et seq., and
> (b) U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. part 401, and

C.   License Fees and Royalties. As permitted by 49 C.F.R. parts 18 and 19:

(1) License fees and royalties for patents, patent applications, and inventions derived from the Project are program income, and
(2) The Recipient has no obligation to the Federal Government with respect to those license fees or royalties, except:

> (a) For compliance with 35 U.S.C. § 200 et seq., which applies to patent rights developed under a federally funded research-type project, and
> (b) As FTA determines otherwise in writing.

Rights in Data and Copyrights

A.   Definition of "Subject Data." means recorded information:
(1) Copyright. Whether or not copyrighted, and
(2) Delivery. That is delivered or specified to be delivered under the Underlying Agreement,

B.   Examples of "Subject Data." Examples of "subject data":
(1) Include, but are not limited to:
> (a) Computer software,
> (b) Standards,
> (c) Specifications,
> (d) Engineering drawings and associated lists,
> (e) Process sheets,
> (f) Manuals,
> (g) Technical reports,
> (h) Catalog item identifications, and
> (i) Related information, but
(2)   Do not include:
> (a) Financial reports,
> (b) Cost analyses, or
> (c) Other similar information used for Project administration,

C.   General Federal Restrictions. The following restrictions apply to all subject data first produced in the performance of the Recipient's Project supported by the Underlying Agreement:
(1) Prohibitions. The Recipient may not:
> (a) Publish or reproduce any subject data in whole or in part, or in any manner or form, or
> (b) Permit others to do so, but
(2) Exceptions. The prohibitions of Rights in Data and Copyrights C(1) do not apply to:
> (a) Publications or reproductions for the Recipient's own internal use,
> (b) An institution of higher learning,
> (c) The portion of subject data that the Federal Government has previously released or approved for release to the public, or

          (d) The portion of data that has the Federal Government's prior written consent for release,

D.   Federal Rights in Data and Copyrights. The Recipient agrees that:
(1) License Rights. The Recipient must provide a license to its "subject data" to the Federal Government, which license is:
          (a) Royalty-free,
          (b) Non- exclusive, and
          (c) Irrevocable,
(2) Uses. The Federal Government's license must permit the Federal Government to take the following actions provided those actions are taken for Federal Government purposes:
          (a) Reproduce the subject data,
          (b) Publish the subject data,
          (c) Otherwise use the subject data, and
          (d) Permit other entities or individuals to use the subject data, and

E.   Special Federal Rights in Data for Research, Development, Demonstration, Deployment, and Special Studies Projects. In general, FTA's purpose in providing Federal funds for a research, development, demonstration, deployment, or special studies Project is to increase transportation knowledge, rather than limit the benefits of the Project to the Recipient and its Third Party Participants, therefore, the Recipient agrees that:
(1) Publicly Available Report. When the Project is completed, it must provide a Project report that FTA may publish or make available for publication on the Internet,
(2) Other Reports. It must provide other reports pertaining to the Project that FTA may request,
(3) Availability of Subject Data. FTA may make available to any FTA Recipient or any of its Third Party Participants at any tier of the Project, either FTA's copyright license to the subject data or a copy of the subject data, except as the Federal Government determines otherwise in writing,
(4) Identification of Information. It must identify clearly any specific confidential, privileged, or proprietary information submitted to FTA,
(5) Incomplete Project. If the Project is not completed for any reason whatsoever, all data developed under the Project becomes "subject data" and must be delivered as the Federal Government may direct, but
(6) Exception. Rights in Data and Copyrights Section E does not apply to an adaptation of automatic data processing equipment or program that is both:
          (a) For the Recipient's use, and
          (b) Acquired with FTA capital program funding,

F.   License Fees and Royalties. As permitted by 49 C.F.R. parts 18 and 19:
(1) License fees and royalties for copyrighted material or trademarks derived from Project are program income, and
(2) The Recipient has no obligation to the Federal Government with respect to those license fees or royalties, except:
          (a) For compliance with 35 U.S.C. § 200 et seq., which applies to patent rights developed under a federally funded research-type project, and
          (b) As FTA determines otherwise in writing,

G.   Hold Harmless. Upon request by the Federal Government, the Recipient agrees that:
(1) Violation by Recipient.
          (a) If it willfully or intentionally violates any:
               1 Proprietary rights
               2 Copyrights, or
               3 Right of privacy, and
          (b) Its violation occurs from any of the following uses of Project data:
               1 Publication,
               2 Translation,
               3 Reproduction,

4 Delivery,
5 Use, or
6 Disposition, then

(c) It will indemnify, save, and hold harmless against any liability, including costs and expenses of:

1 The Federal Government's officers acting within the scope of their official duties,

2 The Federal Government's employees acting within the scope of their official duties, and 3 Federal Government's agents acting within the scope of their official duties, but (2) Exceptions. The Recipient will not be required to indemnify the Federal Government for any liability described in Rights in Data and Copyrights section G(1) if:

(a) Violation by Federal Officers, Employees or Agents. The violation is caused by the wrongful acts of Federal employees or agents, or

(b) State law. If indemnification is prohibited or limited by applicable State law,

H.   Restrictions on Access to Patent Rights. Nothing in this Rights in Data and Copyrights section pertaining to rights in data either:

(1) Implies a license to the Federal Government under any patent, or

(2) May be construed to affect the scope of any license or other right otherwise granted to the Federal Government under any patent,

I.   Data Developed Without Federal Funding or Support. The Recipient understands and agrees that in certain circumstances it may need to provide data developed without any Federal funding or support to FTA. Nevertheless:

(1) Protections. Rights in Data and Copyrights Sections A, B, C, and D generally do not apply to data developed without Federal funding, even though that data may have been used in connection with the Project, and

(2) Identification of Information. The Recipient understands and agrees that the Federal Government will not be able to protect data developed without Federal funding from unauthorized disclosure unless that data is clearly marked "Proprietary" or "Confidential," and

J.   Requirements to Release Data. The Recipient understands and agrees that the Federal Government may be required to release Project data and information the Recipient submits to the Federal Government as required by:

(1) The Freedom of Information Act, 5 U.S.C. § 552,

(2) Another applicable Federal law requiring access to Project records,

(3) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," specifically 49 C.F.R. § 19.36(d), or

(4) Other applicable Federal regulations and guidance pertaining to access to Project records.

4.42.   Termination

a. Termination for Convenience (General Provision) the recipient may terminate this contract, in whole or in part, at any time by written notice to contractor when it is in the recipient's best interest. Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. Contractor shall promptly submit its termination claim to the recipient. If contractor is in possession of any of the recipient's property, contractor shall account for same, and dispose of it as the recipient directs.

b. Termination for Default [Breach or Cause] (General Provision) If contractor does not deliver items in accordance with the contract delivery schedule, or, if the contract is for services, and contractor fails to perform in the manner called for in the contract, or if contractor fails to comply with any other provisions of the contract, the recipient may terminate this contract for default. Termination shall be

effected by serving a notice of termination to contractor setting forth the manner in which contractor is in default. Contractor shall only be paid the contract price for supplies delivered and accepted, or for services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the recipient that contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of contractor, the recipient, after setting up a new delivery or performance schedule, may allow contractor to continue work, or treat the termination as a termination for convenience.

c. Opportunity to Cure (General Provision) the recipient in its sole discretion may, in the case of a termination for breach or default, allow contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination shall state the time period in which cure is permitted and other appropriate conditions

If contractor fails to remedy to the recipient's satisfaction the breach or default or any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by contractor or written notice from the recipient setting forth the nature of said breach or default, the recipient shall have the right to terminate the Contract without any further obligation to contractor. Any such termination for default shall not in any way operate to preclude the recipient from also pursuing all available remedies against contractor and its sureties for said breach or default.

d. Waiver of Remedies for any Breach In the event that the recipient elects to waive its remedies for any breach by contractor of any covenant, term or condition of this Contract, such waiver by the recipient shall not limit its remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

e. Termination for Convenience (Professional or Transit Service Contracts) the recipient, by written notice, may terminate this contract, in whole or in part, when it is in the recipient's interest. If the contract is terminated, the recipient shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

f. Termination for Default (Supplies and Service) If contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. Contractor shall only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

g. Termination for Default (Transportation Services) If contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. Contractor shall only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while contractor has possession of the recipient goods, contractor shall, as directed by the recipient, protect and preserve the goods until surrendered to the recipient or its agent. Contractor and the recipient shall agree on payment for the preservation and protection of goods. Failure to agree on an amount shall be resolved under the Dispute clause. If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

h. Termination for Default (Construction) If contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified, or any extension, or fails to complete the work within this time, or if contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. the recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. In this event, the recipient may take over the work and compete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. Contractor and its sureties shall be liable for any damage to the recipient resulting from contractor's refusal or failure to complete the work within specified time, whether or not contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the recipient in completing the work.

Contractor's right to proceed shall not be terminated nor shall contractor be charged with damages under this clause if:

1. Delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of contractor. Examples of such causes include: acts of God, acts of the recipient, acts of another contractor in the performance of a contract with the recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. Contractor, within 10 days from the beginning of any delay, notifies the recipient in writing of the causes of delay. If in the recipient's judgment, delay is excusable, the time for completing the work shall be extended. The recipient's judgment shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of contractor's right to proceed, it is determined that contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if termination had been issued for the recipient's convenience.

i.Termination for Convenience or Default (Architect & Engineering) the recipient may terminate this contract in whole or in part, for the recipient's convenience or because of contractor's failure to fulfill contract obligations. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature, extent, and effective date of termination. Upon receipt of the notice, contractor shall
      (1) immediately discontinue all services affected (unless the notice directs otherwise), and
      (2) deliver to the recipient all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process. If termination is for the recipient's convenience, it shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services. If termination is for contractor's failure to fulfill contract obligations, the recipient may complete the work by contact or otherwise and contractor shall be liable for any additional cost incurred by the recipient.

If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

j. Termination for Convenience or Default (Cost-Type Contracts) the recipient may terminate this contract, or any portion of it, by serving a notice or termination on contractor. The notice shall state whether termination is for convenience of the recipient or for default of contractor. If termination is for default, the notice shall state the manner in which contractor has failed to perform the requirements of the contract. Contractor shall account for any property in its possession paid for from funds received from the recipient, or property supplied to contractor by the recipient. If termination is for default, the recipient may fix the fee, if the contract provides for a fee, to be paid to contractor in proportion to the value, if any, of work performed up to the time of

termination. Contractor shall promptly submit its termination claim to the recipient and the parties shall negotiate the termination settlement to be paid to contractor. If termination is for the recipient's convenience, contractor shall be paid its contract close- out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a notice of termination for default, the recipient determines that contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of contractor, the recipient, after setting up a new work schedule, may allow contractor to continue work, or treat the termination as a termination for convenience.

4.43. *Contracts Involving Federal Privacy Act Requirements*

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

(1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

(2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

4.44. *Government Wide Debarment and Suspension (non procurement)*

The Recipient agrees to the following:

(1) It will comply with the requirements of 2 C.F.R. part 180, subpart C, as adopted and supplemented by U.S. DOT regulations at 2 C.F.R. part 1200, which include the following:

(a) It will not enter into any arrangement to participate in the development or implementation of the Project with any Third Party Participant that is debarred or suspended except as authorized by: 1 U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200, 2 U.S. OMB, "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180, including any amendments thereto, and 3 Executive Orders Nos. 12549 and 12689, "Debarment and Suspension," 31 U.S.C. § 6101 note,

(b) It will review the U.S. GSA "System for Award Management," http://https.www.sam.gov,.proxy1.semalt.design if required by U.S. DOT regulations, 2 C.F.R. part 1200, and (c) It will include, and require each of its Third Party Participants to include, a similar provision in each lower tier covered transaction, ensuring that each lower tier Third Party Participant: 1 Will comply with Federal debarment and suspension requirements, and 2 Reviews the "System for Award Management" at http://https.www.sam.gov,.proxy1.semalt.design if necessary to comply with U.S. DOT regulations, 2 C.F.R. part 1200, and

(2) If the Recipient suspends, debars, or takes any similar action against a Third Party Participant or individual, the Recipient will provide immediate written notice to the:

(a) FTA Regional Counsel for the Region in which the Recipient is located or implements the Project,

(b) FTA Project Manager if the Project is administered by an FTA Headquarters Office, or

(c) FTA Chief Counsel,

4.45. *Lobbying*

Contractors who apply or bid for an award of $150,000 or more shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non- Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

4.46. *Access to Records and Reports*

The following access to records requirements apply to this Contract:
1. Where the purchaser is not a State but a local government and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 18.36(i), contractor shall provide the purchaser, the FTA, the US Comptroller General or their authorized representatives access to any books, documents, papers and contractor records which are pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor shall also, pursuant to 49 CFR 633.17, provide authorized FTA representatives, including any PMO contractor, access to contractor's records and construction sites pertaining to a capital project, defined at 49 USC 5302(a)1, which is receiving FTA assistance through the programs described at 49 USC 5307, 5309 or 5311.
2. Where the purchaser is a State and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 633.17, contractor shall provide the purchaser, authorized FTA representatives, including any PMO Contractor, access to contractor's records and construction sites pertaining to a capital project, defined at 49 USC 5302(a)1, which receives FTA assistance through the programs described at 49 USC 5307, 5309 or 5311. By definition, a capital project excludes contracts of less than the simplified acquisition threshold currently set at $150,000.
3. Where the purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 19.48, contractor shall provide the purchaser, the FTA, the US Comptroller General or their authorized representatives, access to any books, documents, papers and record of the contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.
4. Where a purchaser which is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 USC 5325(a) enters into a contract for a capital project or improvement (defined at 49 USC 5302(a)1) through other than competitive bidding, contractor shall make available records related to the contract to the purchaser, the Secretary of USDOT and the US Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
5. Contractor shall permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
6. Contractor shall maintain all books, records, accounts and reports required under this contract for a period of not less than three (3) years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case contractor agrees to maintain same until the recipient, FTA Administrator, US Comptroller General, or any of their authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Re: 49 CFR 18.39(i)(11). FTA does not require the inclusion of these requirements in subcontracts.

4.47. *Federal Changes*

Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between the purchaser and FTA, as they may be amended or promulgated from time to time during the term of the contract. Contractor's failure to comply shall constitute a material breach of the contract.

4.48.   Fly America Requirements

Contractor shall comply with 49 USC 40118 (the "Fly America" Act) in accordance with General Services Administration regulations 41 CFR 301-10, stating that recipients and subrecipients of Federal funds and their contractors are required to use US Flag air carriers for US Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a US flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Contractor shall include the requirements of this section in all subcontracts that may involve international air transportation

4.49.   Energy Conservation

Contractor shall comply with mandatory standards and policies relating to energy efficiency, stated in the state energy conservation plan issued in compliance with the Energy Policy & Conservation Act.

4.50.   Clean Water

Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. Contractor shall report each violation to the recipient and understands and agrees that the recipient shall, in turn, report each violation as required to FTA and the appropriate EPA Regional Office. Contractor shall include these requirements in each subcontract exceeding $100,000 financed in whole or in part with FTA assistance.

4.51.   Clean Air

1) Contractor shall comply with all applicable standards, orders or regulations pursuant to the Clean Air Act, 42 USC 7401 et seq. Contractor shall report each violation to the recipient and understands and agrees that the recipient will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.
2) Contractor shall include these requirements in each subcontract exceeding $150,000 financed in whole or in part with FTA assistance.

4.52.   Program Fraud and False or Fraudulent Statements or Related Acts

(1) Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 USC 3801 et seq. and USDOT regulations, "Program Fraud Civil Remedies," 49 CFR 31, apply to its actions pertaining to this project. Upon execution of the underlying contract, contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submittal, or certification, the US Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act (1986) on contractor to the extent the US Government deems appropriate.
(2) If contractor makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submittal, or certification to the US Government under a contract connected with a project that is financed in whole or in part with FTA assistance under the authority of 49 USC 5307, the

Government reserves the right to impose the penalties of 18 USC 1001 and 49 USC 5307(n)(1) on contractor, to the extent the US Government deems appropriate.

(3) Contractor shall include the above two clauses in each subcontract financed in whole or in part with FTA assistance. The clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

4.53. Other Federal Requirements

The following requirements are not federal clauses.

4.54. Full and Open Competition

In accordance with 49 U.S.C. § 5325(a) all procurement transactions shall be conducted in a manner that provides full and open competition.

4.55. Prohibition Against Exclusionary or Discriminatory Specifications

Apart from inconsistent requirements imposed by Federal statute or regulations, the contractor shall comply with the requirements of 49 USC 5323(h)(2) by refraining from using any FTA assistance to support procurements using exclusionary or discriminatory specifications.

4.56. Conformance with ITS National Architecture

Contractor shall conform, to the extent applicable, to the National Intelligent Transportation Standards architecture as required by SAFETEA-LU Section 5307(c), 23 U.S.C. Section 512 and as amended by MAP-21 23 U.S.C. § 517(d), note and follow the provisions of FTA Notice, "FTA National Architecture Policy on Transit Projects," 66 Fed. Reg.1455 etseq., January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.

4.57. Notification of Federal Participation

To the extent required by law, in the announcement of any third party contract award for goods and services (including construction services) having an aggregate value of $500,000 or more, contractor shall specify the amount of Federal assistance to be used in financing that acquisition of goods and services and to express that amount of Federal assistance as a percentage of the total cost of the third party contract.

4.58. Interest of Members or Delegates to Congress

No members of, or delegates to, the US Congress shall be admitted to any share or part of this contract nor to any benefit arising therefrom.

4.59. Ineligible Contractors and Subcontractors

Any name appearing upon the Comptroller General's list of ineligible contractors for federally-assisted contracts shall be ineligible to act as a subcontractor for contractor pursuant to this contract. If contractor is on the Comptroller General's list of ineligible contractors for federally financed or assisted construction, the recipient shall cancel, terminate or suspend this contract.

4.60. Other Contract Requirements

To the extent not inconsistent with the foregoing Federal requirements, this contract shall also include those provisions attached hereto, and shall comply with the recipient's Procurement Guidelines, available upon request from the recipient.

4.61. Compliance with Federal Regulations

Any contract entered pursuant to this solicitation shall contain the following provisions: All USDOT-required contractual provisions, as set forth in FTA Circular 4220.1F, are incorporated by reference. Anything to the contrary herein notwithstanding, FTA mandated terms shall control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any grantee request that would cause the recipient to be in violation of FTA terms and conditions. Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including, without limitation, those listed directly or incorporated by reference in the Master Agreement between the recipient and FTA, as may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

4.62. Real Property

Any contract entered into shall contain the following provisions: Contractor shall at all times comply with all applicable statutes and USDOT regulations, policies, procedures and directives governing the acquisition, use and disposal of real property, including, but not limited to, 49 CFR 18.31-18.34, 49 CFR 19.30-19.37, 49 CFR Part 24, 49 CFR 5326 as amended by FAST Act, 49 CFR part 18 or 19, 49 USC 5334, applicable FTA Circular 5010, and FTA Master Agreement, as they may be amended or promulgated during the term of this contract.

Contractor's failure to so comply shall constitute a material breach of this contract.

4.63. Access to Services for Persons with Limited English Proficiency

To the extent applicable and except to the extent that FTA determines otherwise in writing, the Recipient agrees to comply with the policies of Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d 1 note, and with the provisions of U.S. DOT Notice, "DOT Guidance to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries," 70 Fed. Reg. 74087, December 14, 2005.

4.64. Environmental Justice

Except as the Federal Government determines otherwise in writing, the Recipient agrees to promote environmental justice by following:
(1) Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low- Income Populations," February 11, 1994, 42 U.S.C. § 4321 note, as well as facilitating compliance with that Executive Order, and
(2) DOT Order 5610.2, "Department of Transportation Actions To Address Environmental Justice in Minority Populations and Low-Income Populations," 62 Fed. Reg. 18377, April 15, 1997, and
(3) The most recent and applicable edition of FTA Circular 4703.1, "Environmental Justice Policy Guidance for Federal Transit Administration Recipients," August 15, 2012, to the extent consistent with applicable Federal laws, regulations, and guidance,

4.65. Environmental Protections

Compliance is required with any applicable Federal laws imposing environmental and resource conservation requirements for the project. Some, but not all, of the major Federal laws that may affect the project include: the National Environmental Policy Act of 1969; the Clean Air Act; the Resource Conservation and Recovery Act; the comprehensive Environmental response, Compensation and Liability Act; as well as environmental provisions with Title 23 U.S.C., and 49 U.C. chapter 53. The U.S. EPA, FHWA and other federal agencies may issue other federal regulations and directives that may affect the project. Compliance is required with any applicable Federal laws and regulations in effect now or that become effective in the future.

4.66. Geographic Information and Related Spatial Data

Any project activities involving spatial data or geographic information systems activities financed with Federal assistance are required to be consistent with the National Spatial Data Infrastructure promulgated by the Federal Geographic Data Committee, except to the extent that FTA determines otherwise in writing.

4.67. Geographic Preference

All project activities must be advertised without geographic preference, (except in A/E under certain circumstances, preference for hiring veterans on transit construction projects and geographic-based hiring preferences as proposes to be amended in 2 CFR Part 1201).

4.68. Organizational Conflicts of Interest

The Recipient agrees that it will not enter into a procurement that involves a real or apparent organizational conflict of interest described as follows:
(1) When It Occurs. An organizational conflict of interest occurs when the Project work, without appropriate restrictions on certain future activities, results in an unfair competitive advantage:
(a) To that Third Party Participant or another Third Party Participant performing the Project work, and
(b) That impairs that Third Party Participant's objectivity in performing the Project work, or
(2) Other. An organizational conflict of interest may involve other situations resulting in fundamentally unfair competitive conditions,
(3) Disclosure Requirements. Consistent with FTA policies, the Recipient must disclose to FTA, and each of its Subrecipients must disclose to the Recipient:
(a) Any instances of organizational conflict of interest, or
(b) Violations of federal criminal law, involving fraud, bribery, or gratuity violations potentially affecting the federal award, and
(4) Failure to Disclose. Failure to make required disclosures can result in remedies for noncompliance, including debarment or suspension.

4.69. Federal Single Audit Requirements for State Administered Federally Aid Funded Projects Only

Non Federal entities that expend $750,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A 133, "Audits of States, Local Governments, and Non Profit Organizations" (replaced with 2 CFR Part 200,"Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" effective December 26, 2014 as applicable). Non Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non Federal entities that expend less than the amount above in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in Sec. 215 (a) of OMB Circular A-133 Subpart B--Audits, records must be available for review or audit by appropriate officials of the cognizant Federal agency the New York State Department of Transportation, the New York State Comptroller's Office and the U.S. Governmental Accountability Office (GAO). Non Federal entities are required to submit a copy of all audits, as described above, within 30 days of issuance of audit report, but no later than 9 months after the end of the entity's fiscal year, to the New York State Department of Transportation, Contract Audit Bureau, 50 Wolf Road, Albany, NY 12232. Unless a time extension has been granted by the cognizant Federal Agency and has been filed with the New York State Department of Transportation's Contract Audit Bureau, failure to comply with the requirements of OMB Circular A-133 may result in suspension or termination of Federal award payments.

4.70. Veterans Preference

Veterans Preference; as provided by 49 U.S.C. § 5325(k), to the extent practicable, the Recipient agrees and assures that each of its Subrecipients:

(1) Will give a hiring preference to veterans, as defined in 5 U.S.C. § 2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a Capital Project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53, and

(2) Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

4.71. Safe Operation of Motor Vehicles

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or AGENCY.

The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contactor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

4.72. Catalog of Federal Domestic Assistance (CFDA) Identification Number

The municipal project sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass through entity.

4.73. CFDA number for the Federal Transportation Administration

Nonurbanized Area Formula (Section 5311) is 20.509. A Recipient covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," (replaced with 2 CFR Part 200,"Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" effective December 26, 2014 as applicable) agrees to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. The Recipient agrees to accomplish this by identifying expenditures for Federal awards made under Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix "ARRA" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

(END OF GENERAL TERMS AND CONDITIONS)

List of Services/Deliverables – Base Items plus Optional Items

Services to be Provided	Date of Implementation
Base System (TNCs, Bell Connector, Butler, Clermont, SORTA, TANK)	
Software	
Trip Planner	Aug. 2019
Real-Time Bus Information	Aug. 2019
Fare Payment	Aug. 2019
Hardware	
Handheld Validators	Aug. 2019
Back Office Equipment	Aug. 2019
Other Hardware	Aug. 2019
Installations	Aug. 2019
Miscellaneous	
Licenses (Butler, Clermont, SORTA, TANK)	Aug. 2019
Interfaces/Integration	Aug. 2019
Project Management	Aug. 2019
Training	Aug. 2019
Manuals	Aug. 2019
Options Total	
Software (Trip Planner, Real-time Info, Fare Payment)	
Optional Modes (Zip Car, Red Bike, Dearborn and Warren Counties)	Aug. 2020
Future Modes (eScooters, Parking Garages, Greyhound, Butler Flexible Route service)	Aug. 2020
Hardware	
Vehicle Tracking System	Aug. 2019
Onboard Readers	Aug. 2019
Readers Installations	Aug. 2019
Near field communication/Bluetooth/Other	Aug. 2019
Miscellaneous	
Data Subscription	Aug. 2019
Licenses-Dearborn County	Aug. 2019
Licenses-Warren County	Aug. 2019
Warranty--Additional Year	Aug. 2019
Warranty--Additional 2 Years	Aug. 2019
Warranty--Additional 3 Years	Aug. 2019

Invoice Milestones, Schedule, Incentives and Penalties

As referenced in Paragraph 4.3, Payment, Table 3 below establishes Invoice Milestones based on the best measurement points for this project as well as the project schedule preferred by the Region.

Schedule is a very important consideration to Region due to the current application being used expires August 30th, 2019. **The Final Acceptance date shall occur on or before August 30th, 2019.**

Proposers shall include their proposed schedule in the spaces indicated for each milestone. It is also understood that this schedule will be used during the course of the project per the Terms and Conditions dealing with project delay of work.

The invoice milestones in the payment schedule used by Region shows the percentage of the contract amount that will be paid to the Vendor upon attainment of key milestones. If the milestones are not satisfactorily met, payment may be withheld until such time the milestones are met. Payment for optional elements selected will be made upon acceptance of those elements.

Table 1: Milestones and Payment Schedule

Milestone	Number of Days After NTP (to be inserted by the proposer)	Percent of Contract Payment
Requirements Review Approval (Sec 4.9)		5%
System Design Review Approval (Sec 4.9)		5%
Final Design Review Approval		5%
Website Application Approval (Sec 3.5.3.13)		10%
Vehicle Prototype Acceptance Test (incl. SAF) (Sec 4.11)		5%
Vehicle Kit Delivery of Hardware		5%
Vehicle Installations		5%
Training & Manuals Approval		5%
System Testing Approval		10%
Burn-In Testing (21 day) Approval		10%
Final System Acceptance		35%
Total		**100%**

Attachments - List

Attachment A, Statement of Work to include the Compliance Matrix

Attachment B, Pricing Spreadsheet

Attachment C, No Offer Form

Attachment D, Acknowledgement of Solicitation Addenda

Attachment E, Certification – Vendor Information

Attachment F, Certification – Personal Property Tax Affidavit

Attachment G, Certification – Regarding Debarment, Suspension, and Other Responsibility Matters

Attachment H, Certification - Disadvantaged Business Enterprise (DBE) Participation Plan

Attachment I, Certification – Of Restrictions on Lobbying

Attachment A – Statement of Work

Due to size, the Statement of Work is provided as a separate document.

Attachment B - Pricing

ATTACHMENT B
Regional Trip Planning and Fare Purchase Application
RFP 73-2018 Price Proposal

Proposer: _____

PRICE PROPOSAL SUMMARY

Base System (TNCs, Bell Connector, Butler, Clermont, SORTA, Tank)			
Description	**Number of Units**	**Unit Cost**	**Total Cost**
Software			$0.00
Regional Trip Planning			$0.00
Real-Time Bus Information			$0.00
Fare Payment			$0.00
Hardware			$0.00
Handheld Validators			$0.00
Back Office Equipment			$0.00
Other Hardware (Define)			$0.00
Installations			$0.00
Miscellaneous			$0.00
Licenses (Butler, Clermont, SORTA, TANK)			$0.00
Interfaces/Integration			$0.00
Project Management			$0.00
Training			$0.00
Manuals			$0.00
Other			$0.00
Other (Define)			$0.00
Help Desk Support			$0.00
			$0.00
Base System Total			$0.00

Optional Items			
Description	**Number of Units**	**Unit Cost**	**Total Cost**

Software (Trip Planner, Real-time Info, Fare Payment)			$0.00
Optional Modes (Zip Car, Red Bike, Dearborn County, Warren County bus service)			$0.00
Future Modes (eScooters, Parking Garages, Greyhound, Bulter Flexible Route service)			$0.00
Hardware			$0.00
Vehicle Tracking System			$0.00
Onboard Readers			$0.00
Readers Installations			$0.00
Near Field Communication/Bluetooth/Other			$0.00
Miscellaneous			$0.00
Data Subscription			$0.00
Licenses - Dearborn County			$0.00
Licenses - Warren County			$0.00
Warranty - Additional Year			$0.00
Warranty - Additional 2 Years			$0.00
Warranty - Additional 3 Years			$0.00
Optional Items Total			$0.00

TOTAL PROPOSED PRICE (includes Base and Options)	$0.00

Attachment C - No Offer Form

Your feedback regarding this solicitation is very much appreciated. If you do not plan to submit a response to this solicitation, please complete this form with a brief explanation of the reason(s) and return it to us. Your response will assist SORTA improve its procurement process.

Methods of submission of a "no-offer":

1. E-Mail is the preferred method.   Please Email to: lwhiteker@go-metro.com

2. Fax to (513) 632-7505

3. Mail to:

>Southwest Ohio Regional Transit Authority
>
>Procurement Department
>
>1401- B Bank Street
>
>Cincinnati, OH 45214-1782
>
>Attn: Greta Perry

Mark outside envelope "RFP NO. XX-2018"

RFP NO. XX-2018

FACILITIES INSPECTIONS

Date: _____

Bidder or Proposer: _____

Address: _____

Telephone No.: _____ Contact:_____

REASON FOR NO OFFER:

☐   Insufficient time:

☐   Do not handle product/service

☐   Other: _____

☐ We are not interested in future solicitations from SORTA. Please remove us from your vendor list.

Attachment D - Acknowledgement of Addenda

The proposer acknowledges receipt of addenda to the solicitation numbered and dated as follows:

Addendum   Date
Number

_____   _____

_____   _____

_____   _____

_____   _____

_____   _____

Signed this _____ day of _____ , 2018

Firm: _____

By: _____
    Signature   Print Name

Title: _____

END OF FORM

Attachment E – Certifications – Vendor Information

VENDOR INFORMATION

Please provide the following information about your company:

Vendor Name and Address		Payment Remittance Address	
Name:		**Name:**	
Address:		**Address:**	
P.O. Box or Suite No.		**P.O. Box or Suite No.**	
City		**City**	
State	**Zip**	**State**	**Zip**

Contact Person:		
Telephone No.	**Fax No.**	**E-Mail Address:**

Federal Employer I.D. Number:	**Social Security Number:** (If Federal I.D. is not applicable)
Payment Terms:	**Age of Firm:**

List North American Industry Classification System (NAICS Codes):

Disadvantaged Business Enterprise (DBE):
( ) Yes   ( ) No
If yes, attach the certificate from the certifying agency.

Minority Business Category:
( ) Female
( ) Black
( ) Hispanic
( ) Asian American
( ) Indian/Alaskan Native
( ) Other
( ) Not Applicable

Minority Business Enterprise (ex. MBE, SBE, WBE, etc.):
( ) MBE   ( ) SBE   ( ) WBE   ( ) EDGE   ( ) DVBE   ( ) VET   ( ) DSBE   ( ) Other:_____

If checked, attach the certificate from the certifying agency.

Annual Gross Receipts: ( ) less than $500,000 ( ) $500,000 to $1 million ( ) $1 million to $5 million
( ) greater than $5 million

Please provide the number of employees for your firm.

Please provide the last three years of gross revenues.

Year _____ $_____

Year _____ $_____

Year _____ $_____

Attachment F – Certification – Personal Property Tax Affidavit

Personal Property Tax Affidavit

Ohio Revised Code Section 5719.042 requires the bidder (or proposer) to a submit statement affirmed under oath that the bidder (or proposer) was or was not charged with delinquent personal property taxes on the general tax list of personal property for Hamilton County, Ohio, at the time the bidder's bid (or proposer's proposal) was submitted. THE FOLLOWING INFORMATION IS TO BE COMPLETED AND SUBMITTED WITH THE BIDDER'S BID (or PROPOSER'S PROPOSAL):

The undersigned being first duly sworn, hereby affirms under oath, pursuant to the above-referenced Invitation for Bid/Request for Proposal Number ("RFP/IFB/RFQ NUMBER"), that at the time the bidder's bid (or proposer's proposal) was submitted, my company/organization (check one below and complete the following):

WAS NOT charged with any delinquent personal property taxes on the general tax list of personal property for Hamilton County, Ohio.

WAS charged with delinquent personal property taxes on the general tax list of personal property for Hamilton County, Ohio as follows:

$_____ is due and unpaid delinquent taxes, and/or

$_____ is due and unpaid penalties and interest thereon.

If the taxpayer was charged with any such taxes, SORTA will transmit a copy of this affidavit to the Hamilton County (Ohio) Treasurer within thirty (30) days of the date it is submitted.

NAME OF BIDDER/PROPOSER: _____

AUTHORIZED SIGNATURE: _____

TITLE: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

State of _____

County of _____

Sworn to before me and subscribed in my presence this _____ day of _____, 20___.

(Seal)   _____
                          Notary Public

                          _____

                          Commission Expiration Date

Attachment G – Certification – Regarding Debarment, Suspension and Other Responsibility Matters

Certification Regarding Debarment, Suspension and Other Responsibility Matters

This Certification is required to be submitted to SORTA on behalf of the principal bidder/proposer and all subcontractors whose subcontracts are reasonably anticipated to exceed $25,000 in value.

A. The undersigned Bidder/Proposer/Subcontractor ("Attester") certifies to the best of its knowledge and belief that the Attester and/or any of its principals or subcontractors:

B. Are not presently included in the Excluded Parties List System maintained by the U.S. General Services Administration or otherwise debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal or State of Ohio department or agency;

C. Have not, within a three-year period preceding this bid/proposal, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or Local) transaction or contract or subcontract; violation of Federal or State antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property; and

D. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 above; and

E. Have not within a three-year period preceding this bid/proposal had one or more public transactions (Federal, State or local) terminated for cause or default by any federal agency.

F. "Principals", for the purposes of this certification, means officers, directors, owners, partners, and persons having primary management or supervisory responsibilities within a business entity (e.g., general manager, plant manager, head of a subsidiary, division, or business segment, and similar positions).

G. This certification concerns a matter which may be within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Section 1001, Title 18, United States Code.

H. The Attester shall provide immediate written notice to SORTA's Procurement Department if, at any time the Attester learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

I. A certification that any of the items in Paragraph A exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Attester's responsibility. Failure of the Attester to furnish a certification or provide such additional information as requested by SORTA may render the Attester nonresponsible.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by Paragraph A.   The knowledge and information of an Attester is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

A. The certification in Paragraph A is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Attester knowingly rendered an erroneous certification, in addition to other remedies available to SORTA, SORTA may terminate the contract resulting from this solicitation for default.

B. If the Attester is unable to certify to any of the statements in this certification, it shall attach an explanation to this certification.

THE UNDERSIGNED CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET. SEQ. ARE APPLICABLE THERETO.

Executed this _____ day of _____, 20_____.

Name of Bidder/Proposer: _____

Address: _____

City, State, Zip: _____

Signature of Authorized Official: _____

Printed Name of Official: _____

Title of Official: _____

Attachment H – DBE Certifications

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION PLAN

Name of Prime Contractor		
Title of Solicitation	Regional Trip Planning & Fare Purchase Application	
IFB/RFP No	**Total Bid/Proposal Amount** $	

Name of DBE	Address	Contact Person & Telephone	Scope of Work	Dollar Value of Work
1.				
2.				
3.				
4.				
5.				
6.				
7.				
Total DBE Dollars/% of Total Bid/Proposal Amount				$_____ _____%

The undersigned will enter into formal agreements with the DBEs listed above for work in this schedule conditioned upon the award of a contract by the Southwest Ohio Regional Transit Authority (SORTA).

_____   _____   _____   _____
Signature of Prime   **Title**   **Phone #**   **Date**
Bidder/Proposer Representative

Attachment I – Certification – Of Restrictions on Lobbying

Certification of Restrictions on Lobbying

(Required When the Total Extended Price/Cost is $100,000 or Greater)

The undersigned hereby certifies on behalf of Bidder/Proposer named below that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Executed this _____ day of _____, 20____.

Name of Bidder/Proposer _____

Address _____

City, State, Zip _____

Signature of Authorized Official _____

Printed Name of Official _____ Title of Official _____

Telephone _____ Fax _____ E-Mail _____

RFP 73-2018

ATTACHMENT A

Regional Trip Planning & Fare Purchase Application

Functional Requirements

1. Purpose

The Southwest Ohio Regional Transit Authority (SORTA), along with its regional transportations partners, hereafter known as "region or regional", wish to replace the current trip planner and fare payment application (CincyEZRide, which expires August 2019) with a new application that will provide the following functionalities:

- − Regional trip planning
- − Itineraries that utilize public transit, Transportation Network Companies (TNCs) and shared cars and bikes
- − Real-time tracking of public transit vehicles
- − Fare purchase

The application shall allow users to plan their trips across the entire region using any combination of the above stated modes. The application shall also allow the users to purchase their fares through the same application.

The objective of this system is to provide our customers with a convenient way to plan their trips; track their vehicles and buy and use fares.

This application shall be viewed by users as a one-stop-shop for planning and completing their trips.

2. Overview of Region's Transit Services

The sections below describe SORTA interactions with neighboring providers and how they can be improved. The sections below talk about bus operation and passenger interfaces between SORTA and neighboring systems.

The regional transit agencies will be working together to establish a regional fare structure and policy. Fare allocation will also be a discussion item among the regional agencies.

2.1. SORTA

SORTA, through its "Metro" service, provides public transportation service throughout the Greater Cincinnati area, primarily serving the City of Cincinnati and Hamilton County. SORTA Metro service consists of a total of 46 bus routes with just over 4,000 bus stops. Fixed route bus service operates from two garages (Queensgate and Bond Hill). Figure 1 and Figure 2 show SORTA's current bus service network.

The various Metro routes are classified and described in the sections below.

2.1.1. Metro*Plus/Metro Bus Limited Routes

The "Metro*Plus" routes and Metro Limited routes are routes that makes fewer stops than local services, often times operating along the same corridor of a local route. The difference between

Metro*Plus service and a Metro Bus Limited service is the branding of vehicles. Currently there is only one Metro*Plus route (Route 90).

2.1.2. Metro Bus Local Routes

Metro Bus Local routes are local service bus lines that serve corridors throughout the Cincinnati metropolitan area. Typically local services provide direct alignments following key arterial corridors. The following are Metro Bus Local routes (1, 4, 6, 11, 16, 17, 19, 20, 21, 24, 27, 28, 31, 32, 33, 41, 43, 46, 49, 50, 51, 64, 78, 85)

2.1.3. Metro Express Routes

Express routes operate between a residential area or Park-and-Ride and a business district or other type of activity center. SORTA express routes currently serve all local bus stops in the catchment/distribution area. There are two types of Metro Express routes, ones that serve Park-and-Ride locations and a few neighborhood stops and ones that operate along a major corridor segment making local stops, but also include a nonstop segment. The following are Metro Express bus routes (2X, 3X, 12X, 14X, 15X, 23X, 25X, 29X, 30X, 38X, 40X, 42X, 52X, 71X, 74X, 75X, 77X, 81X, 82X)
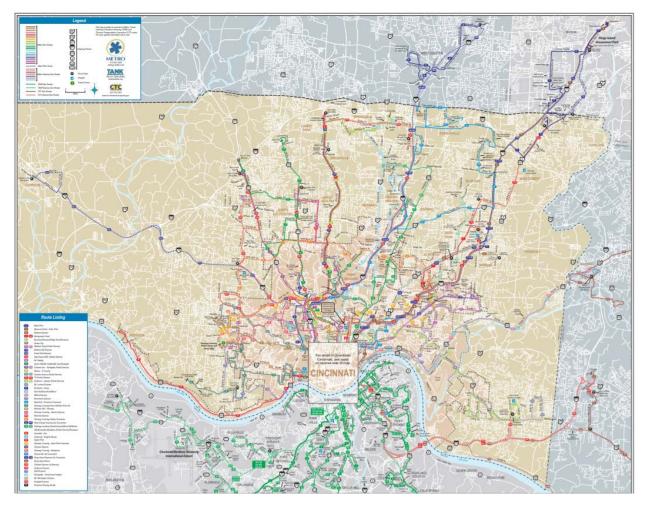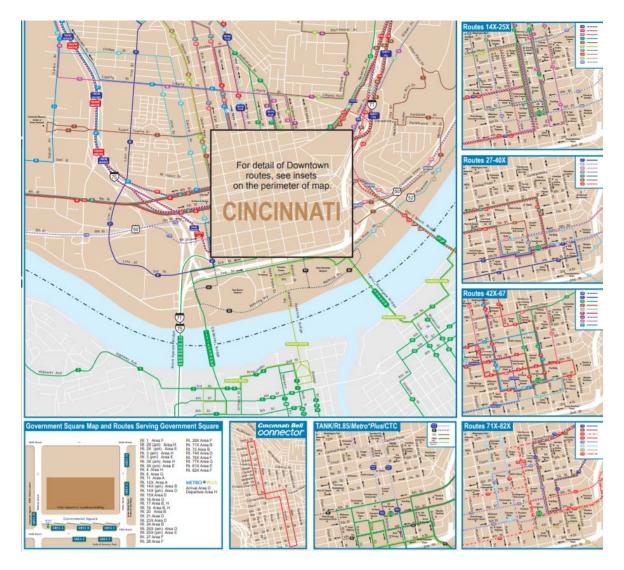

Figure 1: SORTA's Network

Figure 2: SORTA's Downtown Service

2.1.4. Metro Job Connection (Reverse Commuter) Routes

Metro Job Connection routes (or "Reverse Commuter" routes) have a limited number of stops in the catchment/distribution area before operating non-stop to/from the ridership generator. The following are Metro Job Connection bus routes (3, 23, 42, 67, 71, 72)

2.1.5. Metro XTRA Service Routes

Metro XTRA Service routes provide additional service (and therefore capacity) on certain bus corridors during the academic year. Metro service is provided on regularly scheduled XTRA Service routes, which only operate on school days and are designed to prevent overcrowding on regular Metro routes. The nomenclature (i.e., route number identification) for Metro XTRA Service routes change annually with every academic year.

2.2. Transit Authority of Northern Kentucky

The Transit Authority of Northern Kentucky (TANK) operates local and express bus service between the Northern Kentucky counties (Boone, Campbell, and Kenton) and downtown Cincinnati. The Covington Transit Center serves as the main transfer hub within the TANK system, and bus stops along 4th and 5th St. in Cincinnati allow for easy connections to SORTA.

Linking Covington, Cincinnati, Newport, and Bellevue, the Southbank Shuttle provides high-frequency, all-day service for downtown employees, residents, and visitors. Connections to the Cincinnati/Northern Kentucky International Airport (CVG) can be made from downtown Cincinnati and Covington via the 2X Airporter, making it the most cost-efficient option for residents and visitors alike. High employment growth in Northern Kentucky has led to an increase in reverse commute service to areas like Hebron (39X and 40X) and Florence (1 Industrial and 28X). In addition to fixed route service, TANK also operates the Regional Area Mobility Program (RAMP), a complementary demand response service, required by the Americans with Disabilities Act (ADA).

2.3. Butler County

Butler County Regional Transit Authority (BCRTA) operates transit service throughout Butler County. BCRTA operates regional routes throughout the county with two routes that operate into Hamilton County the R4 and the R6; both of these routes serve Tri County Mall. BCRTA also funds SORTA Routes 42 and 42X which provide express service between Butler County and Downtown Cincinnati.

Tri-County Mall is a good location for BCRTA routes to coordinate with SORTA routes. At this location both of the BCTA R4 and R6 terminate and they depart at the same times. SORTA Route 78, which is a major corridor route with frequent service, which is planned to have 24-hour a day service, also serve this location. Besides the 78, Route 20 and Route 23X serves this location making this a good transfer point. The other location that is an opportunity is the Forest Park Park and Ride which is served by SORTA Routes 14X, 20, 23X, and BCTA Route R4.

2.4. Clermont County

Clermont County operates two express routes to and from Downtown Cincinnati, as well as a county Dial-A-Ride system branded as the Clermont Transportation Connection (CTC). SORTA operates express Route 29X and 82X that serves portions of Clermont County. The terminal points of the SORTA routes do provide opportunities to connect with the Clermont County Dial-A-Ride. Long-term, to facilitate connections, all day service, with reverse commute trips, on the SORTA routes or the CTC express routes could be implemented to better connect Clermont County to Cincinnati. Another potential connection would allow Clermont County Dial-A-Ride services to operate to Anderson Town Center for connection to SORTA services.

In Downtown Cincinnati CTC provides on-street circulation pattern. Based on the public timetables, the CTC circulation Downtown Cincinnati takes approximately ten minutes. The advantage of this circulation pattern is that it brings passengers closer to jobs at the center of Downtown, and with stops close to Government Square, transfers to other services are facilitated easily. Serving a single point, possibly the Riverfront Transit Center, will reduce the amount of circulation in Downtown Cincinnati, and the associated cost. The Riverfront Transit Center does provide weather protected waiting area in the evenings for CTC riders commuting home and most jobs are within an easy walk from the facility. Jobs that are not located close by could be accessed via the streetcar or other transit services. SORTA local bus services will need to be extended to the Riverfront Transit Center to facilitate connections at this location, likely with on-street stops.

2.5. Warren County

Transit in Warrant County is provided by a countywide Dial-A-Ride. SORTA does operate express Route 71X and Job Connector 71 service between Downtown Cincinnati and southern Warren County. During the summer season SORTA also operates Route 72 service between Downtown Cincinnati and Kings Island Amusement Park. Dial-A-Ride services can provide a connection to the express route 71X in Warren County. For an all-day connection, Warren County Dial-A-Ride services can connect with the SORTA extended Route 4 that is proposed to terminate at Sixteen Mile Stand, close to the Warren County border. Longer term, if Warren County develops fixed route services, this location would be a good terminal for a Warren County fixed route.

2.6. CAD/AVL Systems

2.6.1. SORTA

Trapeze Real-Time Passenger Information System (RTPIS)
SORTA utilizes a Trapeze, Inc. RTPIS which provides customers with real-time bus arrival and departure information over the Web, on smartphones, over SMS text messages, and over the telephone. The system also provides wayside LED signs at selected transit stations and hubs, and is comprised of an onboard Driver Controller Unit (DCU), GPS tracking unit, and a cellular data modem. This system provides a General Transit Feed Specification (GTFS) Real Time export to provide the real-time passenger information to other systems.

Trapeze Scheduling System
SORTA uses Trapeze system for transit system scheduling. The mobile ticketing system may interface to this scheduling system to enable integrated trip planning functionality (as a desirable requirement). SORTA also provides its service data (including schedule data) in the General Transit Feed Specification (GTFS) format, which the mobile ticketing system could use for integrated trip planning functionality (as a desirable requirement).

2.6.2. TANK

TANK's buses are retrofitted with Conduent CAD/AVL vendor. They have GTFS-RT data available currently on both Google Maps and the Transit App.

2.6.3. Butler County Regional Transit Authority

BCRTA's fleet is equipped with DoubleMap CAD/AVL system. BCRTA will make GTFS data available.

2.7. About Farebox System

SORTA utilizes an SPX Genfare Automated Fare Collection System (AFCS) which utilizes Fare Deal cards and is comprised of the Genfare Odyssey fareboxes, Operator Control Units (OCUs), Ticket Vending Machines (TVMs), eSTAR website (for online purchases of fare products), Retail Point of Sale (RPOS) devices, cash collection subsystem, and a backend system management and reporting system.

TANK also utilizes an SPX Genfare Automated Fare Collection System (AFCS) comprised of the Genfare Odyssey fareboxes and Operator Control Units (OCUs). TANK's only mobile ticketing component is the Metro-TANK monthly passes which can be purchased on Metro's Passport App, and visually verified by our drivers. TANK offers online purchasing of passes, however these are

mailed to the individual. In-person purchasing can be done at TANK's main office in Fort Wright and the Bus Stop in downtown Cincinnati.

Butler County is also using SPX Genfare fareboxes on their fixed-route vehicles.

2.8. Summary of Fleet Size by Agency

Table 1 summarizes the number of vehicles in each agency's fixed-route fleet (or Cincinnati Bell Connector streetcar)

Table 1: Fleet Size

Agency/System	Fixed-Route Fleet Size
Butler County bus service (BCRTA)	42
Cincinnati Bell Connector (4 doors/car)	5
Clermont County bus service (CTC)	12
SORTA Metro	357
Transit Authority of Northern Kentucky (TANK)	108

2.9. Current Fare Structures

The following are the current fare structures of the agencies in the region:

2.9.1. SORTA

a) <u>Cash Fares – No Transfer Included</u>
$1.75 Metro Zone 1
$2.65 Metro Zone 2
$3.00 Metro Harrison Zone
$3.50 Metro Zone 4
$3.75 Metro Clermont Zone
$4.25 Metro Zone 5
$0.50 Metro Rt. 85 Riverfront Parking Shuttle
$1.00 Streetcar 2 Hour Pass
$3.50 Access Zone 1
$4.50 Access Zone 2

b) <u>Cash Fares – With Transfer Included</u>
$2.25 Metro Zone 1
$3.15 Metro Zone 2
$3.50 Metro Harrison Zone
$4.00 Metro Zone 4
$4.25 Metro Clermont Zone
$4.75 Metro Zone 5

c) <u>Half Price Deal Fares</u>
$0.85 Metro Zone 1

$1.30 Metro Zone 2
$1.50 Metro Harrison Zone
$1.75 Metro Zone 4
$1.85 Metro Clermont Zone
$2.10 Metro Zone 5
$0.50 Streetcar 2 hour pass

d) Period Passes
$4.50 Metro 1-day pass Zone 1
$6.30 Metro 1-day pass Zone 2
$70 Metro Zone 1 30-day
$120 Metro Harrison 30-day
$140 Metro Zone 4 30-day
$150 Metro Clermont 30-day
$170 Metro Zone 5 30-day
$105 Metro/TANK pass 30-day
$1.00 Streetcar 2-hour pass
$2.00 Streetcar day pass

2.9.2. Clermont fare structure is as follows:

Fixed Route: Individual 10-Ride Card
Adult: $3.75 $33.00
Student: $2.75 $25.00
Disabled: $1.85 $16.50
Seniors: $1.85 $16.50
Children (48" and under) $1.85 $16.50
Price with Transfer from Tank or Metro: $1.85

Dial-A-Ride: Individual
Adult: $4.75
Student: $3.75
Disabled: $2.35
Seniors: $2.35
Children (48' and under) $2.35

2.9.3. TANK's fare structure is as follows:

CASH FARE (per Trip)	
Local Fixed Route Adult	$1.50
Local Route Reduced Fare	
(senior/disabled fare)	75¢ + reduced fare card or Metro Fare Deal Card
Express Service	$2.00
Express Route Reduced Fare	

(senior/disabled)	$1.00 + reduced fare card or Metro Fare Deal Card
Southbank Shuttle	$1.00 or one token
Reduced Fare on Southbank Shuttle	75¢ + reduced fare card or Metro Fare Deal Card
RAMP	$2.50
Student	$1.00
Children Under 45"	Ride free when accompanied by an adult.

30 Day Pass	
(unlimited travel on all local service buses and Southbank Shuttle; additional fare of 50¢ to ride an express route; valid for 30 consecutive days from 1st use)	$53.00
30 Day Express Pass	
(unlimited travel on all TANK routes; valid for 30 consecutive days from 1st use)	$70.00
30 Day Southbank Shuttle Pass	
(unlimited travel on Southbank Shuttle's only; valid for 30 consecutive days from 1st use)	$44.00
1 Day/3 Day/5 Day	
(valid for unlimited travel on all Local TANK routes for the calendar day or dates designated on the pass)	$3.50/$10.00/$15.00
Levee/30 Day TANK Pass	
(valid for parking at Newport on the Levee surface lot B and TANK 30 day pass)	$78.00
CTC/TANK 30 Day Pass	
(valid from 6:00 a.m. to 6:00 p.m. parking at the Covington Transit Center and TANK 30 day pass)	$85.00

MONTHLY PASSES	
RAMP Monthly Pass	$88.00
Reduced Fare Local / Southbank Monthly Sticker	
(additional fare of 50¢ is required to ride an express route)	$25.00 (reduced fare card + local / Southbank monthly sticker)
Reduced Fare Express Service Sticker	$40.00 (reduced fare card + local monthly sticker + express sticker)
Metro/TANK Pass - Monthly	
(additional fare of 50¢ is required to ride an express route)	$105.00 (may add express sticker for additional $10)
Metro/TANK Express Pass - Monthly	
(valid for rides on all TANK routes)	$115.00

U-Pass Program (NKU & Gateway staff, faculty, students)	Free with valid University ID. (participating Universities contract with TANK to provide U-Pass)
10 RIDE PASSES/TICKET BOOKS	
TANK Regular 10 Ride Pass	$13.50
Express 10 Ride Pass	$18.00
RAMP Ticket Book (10 rides)	$22.50
Student Pass (10 rides)	$10.00
TANK TRANSFERS	
TANK to TANK	$0.25
Metro to TANK Local	$0.75
Metro to TANK Express	$1.00
TANK to Metro (zone 1)	$0.85

2.10. Butler County's fare structure is as follows:

Day Passes (R Routes, U routes, MTS routes)
BCRTA is now selling a 30 Day Rolling Bus Pass for $40.00, plus shipping. This pass provides full fare for one person on all U routes, R routes, and MTS routes. The pass is good for unlimited rides during the 30 day period after first use.

Single Ride Tickets - BCRTA & MTS
BCRTA sells individual ride tickets in $2.00 and $5.00 increments. BCRTA tickets may be used on all fixed routes and dial a ride services.

Half Fare
Elderly passengers, disabled passengers, and Medicare cardholders are eligible to pay half fare on all BCRTA U & R routes and also on MTS Blue, Gold, Green and Red routes. Half fare on BCRTA is $1.00, and $0.60 on MTS routes.

Transfers
Single ride transfers are available upon request to passengers who pay a cash fare at boarding. Transfers may be used between all "R," "U," and Middletown Transit routes.

Regional Routes
- General Public: $2.00 per ride
- Children under 5: free
- Transfers: free
- ADA Service: $4.00
- Half Fare/Medicare cardholders: $1.00 with ID
- Miami University: free

Oxford /Miami University Routes

- General Public: $2.00 per ride
- Children under 5: free
- Transfers: free
- ADA Service: $4.00
- Half Fare/Medicare cardholders: $1.00 with ID
- Miami University: free

Middletown Routes
- General Public: $1.25 per ride
- Children under 5: free
- Transfers: free
- ADA Service: $2.50
- Half Fare/Medicare cardholders: $0.60 with ID

2.11. About Current CincyEZRide

The Cincy EZRide transit mobile ticketing app was launched on September 1, 2016. It is a product offering of Passport Labs, Inc. Day passes, 30-day passes, 1-ride tickets and 1-ride tickets with transfer are sold for Metro bus service. Day passes, 2-hour passes and child 2-hour passes are sold for the Cincinnati Bell Connector streetcar. About 40,000 tickets are sold monthly with revenue in excess of $100,000. About 6,000 unique customer accounts have sales transactions monthly, with over 34,000 unique customer accounts accumulated since implementation.

3. FUNCTIONAL REQUIREMENTS

- The Application shall include the following three services:
    - Regional Trip Planner
    - Real-time tracking of public transit vehicles
    - Purchase Common Fares

- All three services are detailed in the sections below.

- Two versions of the Application shall be provided:
    - A mobile device version; and
    - A desktop version.

- Both versions may differ in appearance and formatting, due to platforms requirements; however, both versions shall provide the same functionalities and should operate in an identical manner.

- A third version may also be proposed (but is not a requirement) that is tailored specifically to customer service staff.

- The app shall determine the language that the phone is set to and switch to that language; or, if the app does not support that language, then default to English. At a minimum the app shall support English and Spanish.

- The default home screen for the app shall be the Real-Time Bus Information module showing network map.

- Users shall have the ability to designate their own home screen between the following selections:
    - Regional Trip Planner
    - Real-time tracking of public transit vehicles
    - Active Ticket(s)
    - Purchase Common Fare(s)

- The vendor shall deliver a complete solution that covers, at a minimum, all the functionalities described in this solicitation.

- The system shall meet all applicable standards and regulatory requirements including, but not limited to, the Americans with Disabilities Act (ADA) and Payment Card Industry (PCI) requirements.

- The product being proposed shall be user friendly and easy to use and navigate by users of all ages.

3.1. Scope of Work Requirements Classifications

This scope of work encompasses the following three classifications of requirements (as defined in the subsections below):

a) <u>Mandatory Requirement</u>
Any requirement that is not identified as Optional is a mandatory requirement. In the event a Proposer does not comply with any mandatory requirement, the Proposer shall clearly indicate this non-compliance in the proposal and know this could result in being considered non-responsive. Proposers may also provide an alternative solution that may meet the objective of the requirement in a different manner.

b) <u>Optional Requirement</u>
Optional requirements are ones that SORTA/regional agencies may or may not implement as part of this contract. The Proposer is required to offer a solution to all optional requirements and will be considered non-compliant if they do not.

c) <u>Mandatory Information</u>
Mandatory information is information which shall be provided to be fully compliant. In addition to the information requested in the "Proposal Submission Requirements" section, all information requested throughout the Scope of Work and other RFP sections are considered mandatory, and failure to provide this information, will deem a Proposer to be non-compliant.

d) <u>Future Requirement</u>
Future requirements are ones that would be desirable but are not mandatory. The Proposer will not be considered non-compliant if they do not offer a future requirement. However,

Proposers are encouraged to provide a solution to Future requirements or to at least demonstrate having the capability to offer one in the future.

Note that Proposer and Vendor are used interchangeably in this document. SORTA, SORTA/Regional Agencies and Region are used interchangeably in this document.

3.2. Application Navigation

- Upon opening the application, the user shall have four choices available to him/her on the initial screen. These four selections are:
  - My Tickets: lists all active passes/tickets
  - Trip Planner: allows for itinerary planning
  - Vehicle Tracking: displays actual locations of buses
  - Purchase Fare: allows for the purchase of fares

- The above four choices shall be easily accessible through large-enough tabs or buttons. Additional selections may also be provided on the initial screen such as:
  - Subscribe
  - Sign in/Sig out
  - Alert Options
  - Settings
  - Contact Us

- Current time and date shall be visible on all screens of the application.

- In the event the user tabs/clicks on (mobile device or desktop) one of the above selections, the application shall instantly open up the screen of the selected option.

3.2.1. Subscribe

- The mobile application shall automatically create an "anonymous" account upon downloading the application on a mobile device. The phone number of the device shall be used for identification.

- The application shall allow users to subscribe/sign up to take advantage of additional services available through the application. Signing up/subscribing screen shall require users to enter the following information for their profile, as a minimum:

  - First name (required)
  - Last name (required)
  - Email address (optional)
  - Street address (optional)
  - Verify phone number (required)
  - Create and verify password (required)

- The application shall allow users to update their profile anytime they want.

- The app shall allow users to reset their password anytime they want.

3.2.2. Sign In:

- The application shall allow users to sign in by entering the following:
    – Email address; and
    – Password

- In the event that either or both the email address and password are wrong, the application shall inform the user via a message on the screen stating that the information entered is incorrect.
- The application shall also provide the user with the option to always remain Signed In. If a user selects the option to remain signed in, he or she shall not be required to enter neither the email address nor the password to sign in at a later time.

3.2.3. Sign Out

- In the event a user selects Sign Out, he or she will be signed out of the application. The next time the user attempts to use the application, the user shall be asked to enter his/her valid email and password.

3.2.4. Alert Options
The application shall offer the user the following alert options:

- Alerts and notifications about region's services in general:
    – These are messages that agency's staff will push out to users, who signed up for this service, informing them about general matters related to the service.
    – The system shall allow agency's staff to store at least fifty (50) canned messages.
    – Canned messages shall be pushed out simply by selecting a canned message (by clicking on it) and hitting a Send Button.
    – The application shall allow staff to create ad hoc messages and canned messages.

- Alerts about particular route(s):
    – Users shall be able to select up to ten (10) routes from a list of all routes in the region for which they wish to receive alerts.
    – Alerts shall be generated automatically by the application without any staff action.
    – Alerts shall be pushed out automatically by the application without any staff action.
    – The system shall allow transit agency to generate and push ad hoc messages.
    – Alerts shall also be displayed on the map when the Real-Time Bus Information module map is accessed.

- Alerts about a particular route at a particular bus stop:
    – The purpose of this is to allow the application to notify a user when his/her bus is within x minutes from the bus stop where they intend to board.
    – The application shall allow the user to set up his/her alert by:
    – Allowing the user to first select (by clicking or tapping) a bus on the map
        • Prompting the user to select (by clicking or tapping) a corresponding bus stop that is on the already selected route (from the previous step)

- Prompting the user to select number of minutes for advance warning. Number of minutes is to be entered by either typing in the number or selecting it from NumberPicker.
  – Once the alert is set up, the application, while it is in session, shall display a countdown to the estimated arrival time (ETA) of the bus.
  – When the selected bus is within the time chosen from the selected bus stop, the application shall notify the user of that. The notification shall be sent within 10 seconds of the set timeframe.

  – A push notification shall have a text message associated with it and be accompanied by an audible tone.
  – The user shall be able to set audible tone to either on or off.
  – Alerts shall be generated automatically by the application without any staff action.
  – Alerts shall be pushed out automatically by the application without any staff action.
  –

3.3. TRIP PLANNER MODULE

3.3.1. Objective

- The objective of the Trip Planner is to provide users the capability to generate individualized, customized trip itineraries that will help them navigate the entire regional transit system.

- The Trip Planner application shall provide accurate walking directions, accurate transit schedules and routing, and accurate, easy to read directional maps and accurate total fare.

- The Trip Planner shall utilize any combination of the available services in the region to create a single, cohesive, well connected and most convenient itineraries.

- The Trip Planner shall create itineraries that include any of the following transportation services:

  a. Mandatory Modes
     i. Transit Providers
        – Butler County bus service (BCRTA)
        – Cincinnati Bell Connector
        – Clermont County bus service (CTC)
        – SORTA Metro
        – Transit Authority of Northern Kentucky (TANK)
     ii. Transportation Network Companies (TNC)
        – Lyft
        – Uber

  b. Optional Modes
     i. Red Bike (or similar)
     ii. Zip Car (or similar)
     iii. Dearborn County (future)
     iv. Warren County bus service (future)

c. Future Modes
 i. E-scooters, if stations are available
 ii. Greyhound/Baron Bus/Go Bus
 iii. Parking garages
 iv. Ecolane flexible-route scheduling (Butler County)

3.3.2. Application Functionalities

3.3.2.1. User Interface

The user interface shall provide, at a minimum, the following functionalities:

- Origin/starting Point. The user shall have the option to enter the starting point (origin) in any of the following methods:
    - Full address (where possible);
    - Intersection;
    - Landmark;
    - Clicking on a bus stop on the map;
    - Selecting a bus stop from a list of stop of a route;
    - Clicking on a location on the map; or
    - Current Location

- Destination/Ending Point. The user shall have the option to enter the ending point (destination) in any of the following options
    - Full address (where possible);
    - Intersection;
    - Landmark;
    - Clicking on a bus stop on the map;
    - Selecting a bus stop from a list of stop s of a route; and
    - Clicking on a location on the map.
    - Current Location

- User shall be able to tap a button to reverse the origin-destination order.

- Misspelled Name Options. In the event a user misspells the name of a street and/or landmark, or enters a portion of a name, the system shall provide the user with a list of street and landmark names that closely resemble the misspelled entry. The system shall allow the user to select (by clicking) one of those options.

- Landmarks. The system shall allow the entry of landmarks in three ways:
    - User to type the landmark in a text box;
    - Select from a series of drop down lists; and
    - Select from options provided by the system as described in the Misspelled Name Options paragraph.

- Landmark Drop Down Lists. For landmark selection, the system shall provide the user with a series of drop down lists that allow the user to drill from a broad category of landmark down to

landmark name. For example, to select Airport Hilton Hotel, the user will go through the following lists: First list will have general categories of landmarks such as Schools, Hotels, Shopping, Transportation, etc. Selecting the "Hotels" category, another drop down list shall be provided to the user. Finally, the user shall be able to point and click on his/her desired hotel (in this case Airport Hilton Hotel).

- Types of Landmarks: In addition to displaying typical landmarks (i.e. hospitals, hotels, schools, government buildings, parks, malls, banks, etc…), the drop down menu shall also include locations of Zip Car and Red Bike stations.

- Landmarks Updates: Landmarks and businesses information shall be maintained and updated either by the vendor or through open API from Google or equivalent.

- Date. The system shall allow users to enter the date of their choice in two methods: 1-manually typing it into the Date box; and 2-clicking on a calendar pop up. The dates shall all be in Gregorian calendar.

- Default Date. The default date entered in to the Date box shall be the current date (in Gregorian).

- Trip Time Selection. The system shall allow the user to select the trip time by either selecting Start time or Arrival time. Other variations may also be considered such as "Leave as Early as Possible".

- User shall be able to enter time in either 12-hour or 24-hour (military) time format.

- Trip Time Entry. The user shall be able to enter the desired time in any of the following methods:
    – Type in the desired time of the trip;
    – Select the time from drop down list; and
    – Select the time through rolling DatePicker

- Default Time. The default time entered in to the Time box shall be the current time.

- Time and Date Validation. The system shall validate the date and time entries. If either or both are not valid entries, the system shall highlight the invalid entry and inform the user that the entry is invalid.

- Mode Choices. The system shall allow the user to select preferred mode of travel. The user shall be able to selection any combination of the following services:
    – Local Bus;
    – Express Bus;
    – Streetcar;
    – TNC (Phase II);
    – Car Sharing, i.e. Zip Car (Optional Phase II);
    – Bike Sharing, i.e. Red Bike (Optional Phase II); and
    – Future modes i.e. eScooters, Greyhound, parking garages, and flexible routes

- Additional Mode Choices. The system shall allow for additional modes to be added on in the near future. The additional modes may include, but not limited to, Feeder routes and Shuttle service.

- Other User Options. The system shall provide the users with the following options:
  – Least Cost;
  – Fewest Transfers;
  – Fastest Time; and
  – Least Walking.

- The default setting shall be Fastest Time.

- Return Trip. The system shall allow for users to request a return trip itinerary.

- The app shall learn from previous entries by the user and predict what trips (origin destinations) the user may be requesting. This may be in the form of listing previously used locations (listed alphabetically or by frequency of uses) or other method suggested by the vendor.

3.3.2.2.   Itinerary

- Initial Itineraries List. Once users enter their trip information, the system shall generate and list up to five (5) itineraries summaries. Each summary shall state:
  – Travel time;
  – Walking time/distance;
  – Total cost;
  – Start and end times of the trip. The user shall be able to click on any of the summaries to get the full detailed itinerary.

- As long as any transit mode is selected by the user as an acceptable option, the very first itinerary summary shall be the one with a transit component.

- Detailed Itinerary. The detailed itinerary shall provide the following information:
  – Trip starting time: shall include both:
    ▪ Official scheduled time; and
    ▪ Actual arrival time of bus
  – Trip ending time;
  – Total travel time;
  – Walking time/distance at starting, ending and transfer points;
  – Transfers required;
  – Waiting time at transfer points;
  – Total fare; and
  – Maps (see Itinerary Maps paragraph).

- Itinerary Maps. The itinerary shall provide the users with the following maps;
  – A map showing the overall trip, from origin to destination;
  – Detailed walking map from origin to initial transit stop;

- Detailed walking map from last transit stop to destination; and
- Detailed walking map at transfer location if users are required to change location to complete their transfer.

- Display of buses' actual location: the application shall provide the user with the option to turn on or off the display of buses actual location running on the selected itinerary.

- Map Zoom. The system shall allow the user to zoom in and out of the maps.

- Information on Map. The maps generated by the itinerary shall display the following information:
  - Identify origin and destination points;
  - Travel route described in the itinerary;
  - Walking directions and route;
  - Landmarks;
  - Different street categories (depending on the zoom level); and
  - Important geographical features (such as lakes, rivers, creeks).
  - Any alerts as set up by the user.

- The proposed system shall be capable of integrating with Google map. The vendor may also propose better alternatives.

- Aerial Maps. The system shall allow the user to select from the following map display options:
  - Show Streets only;
  - Show Aerial Only;
  - Show Both Streets and Aerial.

- Schedule Times on Maps. With routes displayed on the itinerary maps, the system shall allow the user to click on any of the transit stops to view scheduled times of transit vehicles.

- Trip Not During Service Period:
  - In the event a user's requested trip falls outside the normal service hours of the desired service, the system shall provide the user with a list of routes (that would normally serve his request). The user shall be able to click on the schedules to open them up and check their times. Additionally, the system shall provide the user with the earliest itinerary that serves his/her needs. For example, if a user wants to arrive at a destination at 4 a.m. (which may not be within any of the provider's service hours), the system shall inform the user that the earliest option would be 12:30 a.m.
  - If the user has turned off a particular mode (i.e. TNC) and that mode is available, the app shall provide the user with this option with a message explaining the reason this mode is being listed.

- Printing Itinerary. The itinerary shall allow the users to print the itinerary.

- E-mailing Itinerary. The itinerary shall allow the users to e-mail the itinerary to any valid e-mail address.

- Saving Itinerary. The itinerary shall allow the users to save the itinerary in an appropriate format for later retrieval.

- The itinerary shall allow the user to click on the calculated fare to purchase the fare.
    a. In the event that the user clicks on the displayed fare, the application shall open the fare payment tab.
    b. All relevant information shall be automatically transferred to the fare payment module.
    c. Non-transit Reservations:
        i. Phase 1 (by end of August 2019): in the event a portion of the itinerary is by a mode other than transit (e.g. through TNC, Zip Car, or Red Bike), the application shall allow the user to click on the suggested mode (listed in the itinerary) to automatically open up that service's App—allowing the user to reserve that service. Cost sharing among transit agencies is to be handled at the back office.
        ii. Phase 2 (beyond August 2019): the app shall display a single fare for all modes and the user shall be required to pay a single fare for their entire trip. Cost sharing among transit and non-transit entities is to be handled at the back office.

- Trips Completion Dates. The system shall generate itineraries for trips to be completed the same day, the next day, and any other future date.

3.3.2.3.   General

- Customer Service Screens. If the system proposed provides special version for customer service representatives, then the screens, options, and functionalities of customer service version shall be identical to general public's version (that is both parties need to see the exact same thing).

- Reports. The system shall allow transit agencies to generate the following reports for any period of time:
    – Number of hits (visits)
    – Landmarks (listing their addresses) used for origins and destinations
    – Origins and destinations by address
    – Origins and destinations by area of City (i.e., so many origins from Blue Ash, or ZIP code)
    – Origins and destinations by travel time requested
    – Mode choices
    – Number of completed itineraries
    – Number of users purchased fare through Itinerary Planning link.

3.4. REAL-TIME BUS INFORMATION MODULE
The Region is interested in providing Real-Time Bus Information to its customers. The Contractor shall provide a system that is capable of the following functionalities:

- As Optional: For agencies which vehicles are not equipped with tracking systems, the vendor shall propose an economical solution to acquire real-time location of such vehicles.

- The vendor shall submit a solution that shall provide accurate trip planning and real-time information even when a subset of the regional fleets may not be equipped with tracking systems.

- In the event that the system loses location data of a bus, or a driver isn't logged on, the system shall automatically revert to using scheduled data. The system shall automatically switch to using actual location of buses when data communications is re-established with that bus.

- Access of Real-Time Bus Information

- Upon clicking or tapping on the Real-Time Bus Information option, the application shall instantly open up a map showing the current location of the user—if "Share My Location" is turned on.

- The map shall include all of the following features:
  - All critical geographical features (features subject to approval by agencies' staff)
  - Road network
  - Rail tracks
  - Landmarks
  - Region's bus routes
  - Actual locations of buses on bus routes
  - Zip Car and Red Bike stations

- Map Zoom. The system shall allow the user to zoom in and out of the maps.

- Aerial Maps. The system shall allow the user to select from the following map display options:
  - Show Streets only;
  - Show Aerial Only;
  - Show Both Streets and Aerial.

- Users of the system shall, upon clicking on a particular vehicle on the map, be able to get:
  - Route number
  - Destination of bus
  - Schedule deviation information
  - Time of last real-time update

- Users of the system shall, upon clicking on a bus stop on the map, be able to get:
  - A list of all next buses of every route serving that stop
  - Actual arrival time of each of the buses stated in the previous bullet

- The application shall allow users to select from a drop down list or NumberPicker a particular route number to be displayed.

- The application shall allow users to subscribe to receive schedule deviation information about their choice route/s. The system shall send push notifications. See Alerts Requirements in previous section.

- The app shall allow the users to select their favorite routes (up to 10).

- All favorite routes with their associated bus locations and alerts shall be displayed on the Real-Time Bus Information map.

- The application shall provide capability to generate detailed reports on usage of the application. Staff shall be able to generate reports on:
    - Routes, trips, direction of services requested
    - Times of day and day of week of service requested

3.5. FARE PAYMENT MODULE

3.5.1. Project Overview

This requirement involves the design, installation, testing and commissioning of a mobile ticketing system with the following main objectives:

1. Enhance customer convenience and customer experience
2. Increase operational efficiency through reduced cash handling and reduced paper and plastic based fare ticket usage
3. Increase ridership

3.5.2. General Requirements

- The proposed system shall allow maximum fare capping (e.g., the system shall stop charging a passenger, paying by trip, when his/her daily total fare is equal to what a day-pass fare costs. Similarly for weekly and monthly fares).

- The mobile ticketing system shall provide a secure, reliable and intuitive system for customers to procure electronic fare tickets using their mobile telephones.

3.5.3. Functional Requirements

- This section describes the required functionality.

- Proposers shall provide a complete and detailed functional description of their system.

3.5.3.1. Mobile Ticketing Smartphone Application (App)

- The Contractor shall provide smartphone and tablet mobile ticketing applications ("apps") for, at a minimum, the following platforms:
    1. iOS
    2. Android

- Customers shall be able to easily download their app for free from their app store.

- The app shall allow customers to buy Regional fares and passes described in fare structure provided in Section 2.9.

- The app shall incorporate Regional branding design (provided by SORTA/regional agencies).

- The app shall provide the following components, which are described further in the subsections below:
    1. Ticket purchase
    2. Acquisition and "permanent storing" of payment card information
    3. Transaction terms and conditions
    4. Ticket display
    5. Help and "About the App"
    6. Integration of trip planning
    7. Instant customer feedback form including comments and 5-star rating scale (users may be able to turn this feature on or off)

- The app shall have an open API to integrate more easily with future applications.

3.5.3.2.   Ticket Purchase

- Transit riders shall be able to easily and quickly purchase fares with the minimum number of taps (preferably no more 3 or 4 taps).

- The app shall allow customers to select ticket(s) or pass(es) and the number of riders. Following the customer's selections, the app shall summarize the tickets and number of riders in the checkout screen for the customer's confirmation.

- If directed to Fare Payment module from the Trip Planning module, all relevant fare-related information generated in Trip Planning module shall be automatically populated in their appropriate fields in the Fare Payment module. For example, if the Trip Planning module calculates a one-way fare of $2.50, for a requested itinerary, the type of fare and its amount shall be automatically passed on to the Fare Payment module.

- In the case where fare type and amount are imported from the Trip Planning module, the user shall have the opportunity to override that option and select a different fare (for example, override the suggested one-trip fare and select a day pass).

- Credit card payment required information shall, at a minimum, the following:
    a. Card number
    b. Name on Card
    c. Expiration date
    d. Security Code
    e. Option to store card information

3.5.3.3.   Reduced Fare Tickets

- As indicated in Section 2.9, Region's fare structure includes reduced fare tickets for pre-screened and pre-approved eligible customers.

- The system shall offer reduced fare tickets and passes only to eligible customers, based on either their mobile telephone numbers or passwords (with these numbers possibly being set up by customer service).

3.5.3.4. Acquisition and "Permanent Storing" of Payment Card Information

- Following confirmation of the type and number of tickets in the checkout screen, the app shall request the customer's payment card information during each purchase or allow the customer to provide his/her payment card information on a more "permanent" basis without having to enter it with every purchase.

- The customer shall have the choice at any time to change or remove the "permanent" payment card information.

- The system shall handle the payment card information in a PCI compliant manner, and proposers shall explain how their systems meet this requirement.

- The app shall accept payment via major credit and debit cards – including:
    1. MasterCard;
    2. Visa;
    3. American Express; and
    4. Discover.

- Vendors may propose other online payment methods – including Apple Pay, Google Wallet, and PayPal.

- The app shall provide the customer the option to email a receipt for each purchase, both as the purchases occur and for past purchases upon request.

3.5.3.5. Transaction Terms and Conditions

- Upon acquiring the payment card information, the app shall present the customer with the terms and conditions.

- Following acceptance of the terms and conditions by the customer, the system shall process the payment.

- The Contractor shall provide samples of industry best practice mobile ticketing terms and conditions which shall review and finalize during the design stage.

- The regional partners shall be able to edit the terms and conditions at any time.

3.5.3.6.   Ticket Display

- Upon successful processing of payment, the app shall display the mobile ticket which should allow visual and electronic (e.g., barcode, NFC, Bluetooth) validation.

- Tickets can have one of the following three states:
    1. Pending – the state when the ticket or pass is initially purchased but has not been activated by the customer and is invalid for use
    2. Active – valid for use upon activation of a pending ticket by the customer
    3. Expired – invalid ticket following the expiry of the ticket or pass

3.5.3.7.   Pending Tickets

- A list of pending tickets or passes shall be stored in a "wallet" prior to activation.

- Visual appearance of the pending tickets shall be different than active tickets.

- Within the ticket wallet, pending ticket shall be identified by ticket type and provide the quantity of each ticket type available for activation.

3.5.3.8.   Active Tickets

- Active tickets/passes shall display the following:
    1. Logo (to be provided by regional partners)
    2. Ticket colors assigned according to ticket type
    3. Dynamic current date and time clock counting to 0.10 of a second (to avoid screenshot and video clip fraud)
    4. Activation date and time clock counting to 0.10 of a second (to avoid fare evasion)
    5. Background animation (to avoid screenshot and video clip fraud)
    6. Dynamic 2-dimensional barcode (for electronic validation)
    7. Ticket type and cost
    8. Dynamic expiry countdown timer counting to 0.10 of a second
    9. Rider class (full-fare, student, senior, etc.)
    10. Unique ticket ID

- Customers shall be able to activate a pending ticket/pass even when they do not have data connectivity (or are "offline").

- In the event a ticket/pass is activated offline, the app shall update the central system as soon as the mobile phone obtains data connectivity (or goes "online").

- Customers shall have 5 minutes to use a single ride ticket following activation.

- Multiple tickets/passes may be active at the same time, allowing users to pay for other riders' fares.

- If multiple tickets/passes are active, the individual active tickets/passes shall be accessed by swiping to the right or left.

- The reader shall be capable of detecting basic internal malfunctions and shall communicate failures to back end system. The malfunction detection shall cover at least failure of power or control circuitry and any failure of the fare read unit that could result in a false, incomplete, or corrupted reading of a fare product

3.5.3.9.   Expired Tickets/passes

- When active tickets/passes expire, the ticket should disappear from the screen and be replaced with a "No Active Tickets" message.

- Expired tickets/passes shall be listed in Rider History.

3.5.3.10.   Help and About the App

- The app shall provide help in the form of Frequently Asked Questions (FAQs), which the regional partners will provide. Regional partners shall have the ability to edit the FAQs at any time.

- "About the app" shall provide the following information:
    1. Customer mobile phone number
    2. Customer account number
    3. App version
    4. Device model (e.g., Apple iPhone 5s)
    5. Platform and version (e.g., iOS 8.1.3)

- The app shall allow the customer to send the "About the app" information above to an agency's customer service to assist customer service in resolving customer problems.

3.5.3.11.   Mobile Ticketing Website

- A website shall be included providing the following information to customers:
    1. Links to download the app at the App Store, Google Play or other
    2. Terms and Conditions
    3. Frequently Asked Questions (FAQ)
    4. Privacy Policy

3.5.3.12.   Transaction and Use Reports

- Customers, through the App, and customer service representatives, through their system, shall be able to obtain order and use history reports. The order history report shall show all purchases made by the customer for a selected time period up to 24 months in the past. The use report shall list all the uses of tickets for a selectable time period up to 24 months in the past.

3.5.3.13.   Website Application

- Currently, there are organizations in the region – including employers, colleges, and social service agencies –that provide transit-fare products to their members (i.e., employees, students, and clients). The mobile ticketing system shall allow administrators at these organizations to purchase mobile tickets for its members. The system shall support pre-payment through bank cards.
    1. Group Sales
    2. Group subscription
    3. Group payment

- The Web Application issuing and recharging process shall include the following requirements and capabilities.

- A customer will be able to:
    a. Use any web browser.
    b. User shall be able to purchase products through the Web Application and direct the products to his/her mobile device.
    c. Log-on with user name and password.
    d. Add value to a product.
    e. Register a mobile device/phone number.
    f. Make purchases using a bank card

- The Web Application shall be capable of the following:
    a. Manage all bank cards loading through a gateway service. No credit card information shall be stored on any regional agency's servers.
    b. Send e-mails to all registered users describing special marketing programs and opportunities.
    c. Send e-mails to all registered users when there is any special activity regarding the expiration date of their credit card.
    d. Send emails to all registered users when any of their products is being cancelled or black listed.
    e. The system shall allow the users to opt out of receiving any of the notification e-mails described above.
    f. Provide monthly history activity reports to registered users.
    g. Provide a special page for each registered organization accessed through a user name and password that will allow the registered organization to add value to a single or group of users. It shall be possible to add a different value to each device.
    h. The information from the registered organizations shall be accessed by regional agencies' employee through an administrative site controlled by user name and password.
    i. All invoicing and billing for all services provided to the registered organizations shall be handled automatically by the web site.
    j. Security controls for accessing the web site will include the requirement that a customer register and select a user name and password.
    k. When using a bank card a customer shall be required to provide at a minimum their name, address, card type, card number and CVV.
    l. Allow agencies to send text questions to users (for feedback)

- The web site and all associated data and reports shall be protected from a security perspective from unauthorized hacking and external access.

- The proposed system shall have the capability to import existing clients' data from Excel files. These files may contain clients' names, ID numbers and phone numbers.

3.5.3.14.   Payment Processing

- It shall be required from the vendor to interface the mobile ticketing system with Chase payment processing services such as: Paymentech, SORTA's online payment gateway service provide or other agency per SORTA/region's preference.

- The vendor shall be responsible for all aspects of contacting, completing and filing all required forms and applications, and setting up communications with the preferred payment processing service.

3.5.3.15.   Mobile Ticket Validation and Fraud Prevention for Transit Tickets

- The mobile ticketing system shall provide functionality for:
    1. Visually by the driver and/or inspectors.
    2. Electronically with electronic readers (as an Option)—installed at each door onboard transit vehicles.

3.5.3.16.   Visual Validation

- The mobile ticketing system shall allow operators (drivers), supervisors and inspectors to visually validate a mobile ticket on a smartphone.

- Smartphone mobile tickets shall include the following for visual validation and fraud prevention purposes:
    1. Dynamic current date and time clock counting to 0.10 of a second (to avoid screenshot and video clip fraud)
    2. Activation date and time clock counting to 0.10 of a second (to avoid fare evasion)
    3. Background animation (to avoid screenshot and video clip fraud)
    4. Dynamic 2-dimensional barcode (for electronic validation)
    5. Dynamic expiry countdown timer counting to 0.10 of a second
    6. Back-side or up-swipe second page on valid active tickets (to avoid video clip fraud)

3.5.3.17.   Electronic Validation

- The smartphone mobile ticket shall include a two dimensional (2D) barcode for automatic electronic validation.

- The system shall use a common industry standard QR or barcode symbology – such as, the Aztec 2D symbology. The 2D barcode shall be encrypted using dynamic keys so the barcode changes at a configurable frequency (to avoid screenshot fraud).

- Additional electronic validation functions like near field communication (NFC) and Bluetooth shall be included as optional in addition to the QR and barcode system.

- Validation by Onboard Readers
  The Vendor shall supply readers onboard transit vehicles for ticket validation. The readers shall perform the following functions:
  a. Seamlessly interface with the onboard MDT and farebox to acquire:
     i. Date and Time
     ii. Location (lat/long) of each transaction
     iii. Bus number
     iv. Route, run, block number and direction
     v. Driver's number
     vi. Fare zones information

  b. Each ticket read attempt by the reader shall generate an automatic transaction.

  c. Each transaction shall include the following information:
     i. Ticket number
     ii. Ticket type used (single ride, daily pass, etc...)
     iii. Device used
     iv. Indication whether the ticket is valid or not
     v. Date and time
     vi. Long & Lat of transaction
     vii. Vehicle number
     viii. Driver's number
     ix. Route, run, block and direction
     x. Location of reader (front door or rear door)
     xi. User's ID number (subscription number) if subscribed
     xii. Zones travelled.

  d. The reader shall, at the end of each transaction, send the above data to the back end system instantaneously.

  e. The reader shall have real-time communications with the back-end system for verification of tickets and passes.

  f. In case there is a loss of communications with the back-end system, the reader shall store all data in the unit.

  g. Upon reestablishing communications with the back-end system, the reader shall automatically upload all stored transactions data to the back-end system.

  h. An option for one or more agencies is for the reader to validate tickets and passes without data connection. Upon returning to the garage, the reader shall download/upload data via Wi-Fi connection.

i. The reader shall be a rugged device that withstands the daily operations of a transit vehicle.

j. The reader shall withstand temperatures between -50 F and 140 F.

3.5.3.18. Handheld Validator

- Handheld Validators (HV's) shall be provided in accordance with the requirements of this specification.

- The HV shall be a compact, self-contained device consisting of a reader (QR, barcode, NFC as examples), function keys for inspector input, display screen, transaction status indicators, audio transducer, and power supply.

- The HV shall be designed to provide speedy inspection (less than 2 seconds).

- Fare Inspectors will utilize HVs to verify that the customers' products are valid for the current trip.

- The HV shall communicate with the Central Computer System (CCS) via a charging/data cradle, which shall also be used to charge the HV batteries.

- In general, the HV shall:
  a. Read fare products

  b. Display validity and value information upon request

  c. Register and store ticket/pass information and data entered by the fare inspector

  d. Provide different audible annunciations for valid and invalid transactions

  e. Communicate with the CCS to transmit and receive data regarding fare products reviewed via the charging/data cradle

  f. The HV shall contain non-volatile memory that shall record inspection-related data for each transaction processed.

  g. The HV shall be capable of detecting basic internal malfunctions and shall annunciate failures to the display for the inspector to review. The malfunction detection shall cover at least failure of power or control circuitry and any failure of the fare read unit that could result in a false, incomplete, or corrupted reading of a fare product

  h. The HV will incorporate an indicator to inform the inspector of a low battery condition. This indicator shall activate when less than 2 hours of power remains.

i. When the HV has been inactive for an Agency-adjustable period (initially set to 5 minutes), it may revert to a sleep mode requiring depression of a designated key to activate the unit, for the sake of preserving battery power. User log-on shall not be again required.

j. If the sleep mode is provided, then after an Agency-adjustable period in that mode (initially set to 30 minutes), the HV shall shut down completely, and shall require the user to log on after restoring power.

k. In order to place an HV into service the fare inspector will be required to enter a user name and password.

- The HV shall be a rugged, industrialized handheld computer or, alternatively, may be an App on a smartphone. A touch screen display may be used in conjunction with a limited number of buttons for fixed and variable use.

- The HV shall be rugged, small, and easy to use; however, it recommended that the product operates on an industry standard platform.

- Consideration will be given to cell phone/data technology.

- It shall not be necessary to remove the batteries from the HV to perform recharging. Full recharging of an HV battery shall require no more than four hours.

- HV shall be designed to be easily accommodated in a hand and shall be easy to grasp.

- The HV shall be a single piece of equipment and shall not require additional external modules for power, data storage or other functions as defined within these specifications.

3.5.3.19.   Additional Fraud Prevention Functionality

- The system shall allow the removal of tickets from lost or stolen mobile phones.

- The system shall allow for the deactivation and/or suspension of customer accounts.

- Proposers shall indicate additional fraud prevention functionality their system provides.

3.5.3.20.   System Operation, Administration and Maintenance

- The Contractor shall be fully responsible for the maintenance of the mobile ticketing system.

- The System shall provide regional agencies' system administration capability (as detailed below) for:
    1. System configuration (that is, fare structure modification)
    2. Customer service
    3. Statistics and reports

- The System shall allow different levels of system access for different users, which shall be set by the agency's System Administrator(s).

- Following are the different areas of access which shall be assigned to different users:
    1. System administration (with the ability to provide different access levels to different users)
    2. System configuration (with the ability to modify the fare structure)
    3. Customer service (excluding financial transactions)
    4. Customer service (including financial transactions)
    5. Reports and statistics

3.5.3.21.   System Configuration

- The System shall allow regional partners to update its fare structure including:
    1. Adding new fare types
    2. Deleting fare types
    3. Adjusting prices of fare types

3.5.3.22.   Customer Service

- The System shall provide customer service functionality for an agency's customer service to address customers' issues over the telephone.   That is, while on the phone with a customer, SORTA's (or other agencies') customer service representative shall be able to access all relevant information in trying to resolve the customer's issue.

- At a minimum the System shall allow Customer Service Representatives (CSRs) to:
    1. Run customer order and purchase history reports
    2. Run customer use reports
    3. Resend ticket
    4. Cancel ticket
    5. Block customer temporarily/permanently (from using the System)
    6. Provide refunds to customers
    7. Issue mobile tickets
    8. Transfer a ticket wallet (with pending, active and expired tickets) from one phone to another

3.5.3.23.   Reports

- The System shall provide reports (as described further below) related to:
    1. Sales
    2. Usage
    3. CSR audits
    4. Customer detail

- The reports shall be exportable in the following file formats:
    1. CSV

2. MS Excel
3. PDF
4. MS Word

- All the different report types, in addition to providing data on transit tickets, shall also provide data on usage for the types of passes indicated in the fare structure table.

- The system shall allow for ad hoc reporting.

3.5.3.24.   Sales Reports

The System shall provide sales reports for selected time periods to include selected days of the week (up to five (5) years back) based on:
   a) Total sales (quantities and dollar amounts)
   b) Ticket type (quantities and dollar amounts)
   c) Rider type (quantities and dollar amounts)
   d) Purchase dates and times
   e) Location (as available)
   f) Remaining, unused balances (e.g., unused remaining days of period passes)

3.5.3.25.   Usage (or Ridership) Reports

Usage (or ridership) data, including trips conducted using period passes (which may not require ticket activation for each ride) is very important to regional partners. The System shall provide usage reports based on:
   a) Ticket activation
   b) Activation location (as available)
   c) Onboard validation instances including route, date and time information
   d) Location of active ticket display screen recall
   e) Ridership by location, route, direction, date/time
   f) Passenger miles traveled
   g) NTD-related reports

3.5.3.26.   Customer Service Representative (CSR) Audit Reports

The CSR audit report shall indicate all financial adjustments made by each CSR including:
   a) Refunds
   b) Resends
   c) Cancellations
   d) Customer blocks
   e) Provision of free tickets
   f) Transfer of tickets from one phone to another

4. Other Requirements

4.1. Systems Engineering Approach

- The Vendor shall follow Systems Engineering approach in all phases of design, testing, and installation.

4.2. System Architecture and System Availability

- The proposers shall provide a detailed description of their proposed solution's hardware and software system architectures – including all systems, subsystems and system interfaces comprising their proposed solution.

- The mobile ticketing system shall be hosted with the system servers located at the Contractor's or a third party's data center.

- Proposers shall discuss methods used to ensure a high degree of system availability – including redundancies and soft failure methods to optimize system availability.

4.3. System Integration

- In the event the proposed solution integrates to any agency's existing systems – such as, the FIS fare collection system, Trapeze scheduling system, GTFS service data,- proposers shall provide detailed descriptions of all central system and/or onboard system interfaces, and as part of the system design following contract execution, Interface Control Documents, detailing these interfaces.

4.4. Equipment Reliability

- Proposers shall indicate the equipment reliability of all proposed hardware in terms of Mean Time between Failure (MTBF) – including, all proposed onboard equipment, handheld equipment, and any other hardware utilized.

4.5. Contractor Responsibilities

- The Vendor shall be responsible for all services related to the project, except those stated as Region's responsibilities. These Vendor services shall include, but not be limited to:
    1. Project management
    2. System design
    3. Hardware and software supply
    4. System installation
    5. Testing
    6. Training
    7. Commissioning
    8. Operations, administration and maintenance (OA&M)

4.6. Region's Responsibilities

- The regional agencies shall be responsible to perform the following:

1. Assign a project manager to coordinate activities and to act as a single point of contact for the Vendor for project-related activities
2. Participate in the project kick-off and regular project meetings
3. Conduct the design reviews
4. Make vehicles accessible for installation
5. Provide space (including electrical power) for the installation of vehicle equipment
6. Participate in system testing
7. Participate in training
8. Recruit test customers
9. Conduct project marketing and public education
10. Provide customer service
11. Obtain test customer feedback
12. Obtain agency departments' feedback
13. Conduct testing evaluation (including a test evaluation report)

- Other than these responsibilities, the Vendor shall be responsible for all aspects of the mobile ticketing project.

4.7. Data Ownership

- Any, and all, data collected (by any method or means) via any of the systems stated in this RFP shall be the sole property of the Region. Neither the Vendor nor any of its subcontractors shall require any fees or payment from the Region to store, copy, save or use the collected data.

4.8. BULK DATA TRANSFER

- The system shall allow for Wi-Fi bulk data transfer in order to (1) download software updates/patches for onboard devices; and (2) upload any archived transaction data. The software shall be configurable to determine frequency and types of data transfers.

- The bulk transfer system shall automatically initiate communications with any device without any operator interaction being required.

- In the event communications with a device is lost, the bulk data transfer system shall automatically initiate all required file transfers once Wi-Fi communications is re-established with the vehicle.

- A validation process must be established to repeatedly attempt to complete all required file transfers until acknowledgement has been received that the file transfer was successfully completed.

4.9. DESIGN REVIEW

- The Vendor shall submit a Preliminary Design Review document for SORTA/Regional Partners' (Region) approval prior to purchasing any equipment or undertaking any software development/customization. The Preliminary Design Review document shall be submitted to Region 2 weeks in advance of the Preliminary Design Review meeting.

- The role of this review will be to reduce the chance of any misunderstandings on the design intent or interpretation of the specifications. Approval of the Preliminary Design Review document shall not alter the need for the successful completion of Acceptance Testing.

- The Vendor shall participate in a Baseline Requirements Review meeting in conjunction with the Implementation Kickoff meeting, at which the contractual requirements will be discussed and the Vendor shall be prepared to provide initial feedback on their intended design approach to address each requirement.

- The Vendor shall participate in a Final Design Review meeting, at which the Vendor shall be prepared to present and discuss the Final Design Review document.

- The Final Design Review document shall be submitted to Region at least 3 weeks in advance of the Final Design Review meeting.

4.10. GENERAL INSTALLATION REQUIREMENTS

- All installations shall be performed outside of agency's operating hours, except with prior agreement from that agency. The Vendor shall be responsible for installation and configuration of all Vendor or Region provided equipment, and all Vendor-provided software for the solution.

- The Vendor shall provide all the necessary personnel, tools, test equipment, transportation, hardware and supplies for the successful and complete installation of all equipment and software. The Vendor shall be responsible for subcontractors' performance and safety.

- All installations shall be performed in accordance to all Federal, State and Local laws and regulations. All installations shall be performed in a neat and workmanlike manner. Material shall be all new and of the best quality to meet the needs and intent of the specifications.

- The Vendor shall perform, document and submit for Region approval a pre-installation inspection and test of each installation site noting the existing condition of any structures, wiring, fixtures and finishes that may be affected by the installation.

- The Vendor shall be responsible for restoring the condition of any affected structures, wiring, fixtures and finishes at the installation sites.

4.11. ACCEPTANCE TESTING REQUIREMENTS

- The Vendor shall submit an Acceptance Test Plan and Procedures (ATPP) document for Region approval prior to undertaking any Acceptance Testing.

- The ATPP document shall clearly address (1) how each testable specification requirement will be demonstrated, including the method for performing the test; (2) the results that will constitute success for each test; and (3) the responsibilities of both Vendor and Region representatives during each test.

- The ATPP document shall be submitted to the Region at least two (2) weeks in advance of the Acceptance Test Review meeting.

- The ATPP document shall address Factory Testing (if necessary), Installation Testing, System Testing and Burn-In Testing.

- Factory Testing (if necessary), Installation Testing and System Testing must be witnessed by Region representatives (Region employees or designated support consultants).

- The Vendor shall provide written notice to the Region at least five days in advance of any testing, indicating the specific tests to be completed as well as the date, time and location.

- Factory Testing (if necessary) shall be completed before the equipment and software is shipped to Region for installation, and deficiencies shall be rectified before shipping.

- Installation Testing shall be completed after each installation, and deficiencies shall be rectified before the initiation of System Testing.

- System Testing shall be completed after the entire system has been installed, and deficiencies shall be rectified before the initiation of Burn-In Testing. System Testing shall include the testing of all spare components.

- Burn-In Testing shall be completed over a 21-day period with the system in operational use, and deficiencies shall be rectified before the Region will grant Final System Acceptance.

- The Vendor shall provide written Test Results documentation within one week of completing each stage of testing. All Test Results documentation must be approved before the Region will grant Final System Acceptance.

- The Region will document all deficiencies identified through any stage of Acceptance Testing in a "punch list," and Final System Acceptance will not be granted until all items on the punch list have been resolved.

- If any test needs to be repeated, the Region may require the Vendor to reimburse the Region for its additional costs in providing Region witnessing representatives.

4.12. DOCUMENTATION, LICENSES AND TRAINING REQUIREMENTS

4.12.1. Configuration Management

- The Vendor shall provide an As-Built document to Region at the completion of the implementation. The As-Built document shall include: (1) an inventory of all components supplied including supplier, model number, serial number and installation location; (2) an inventory of all spare parts supplied including supplier, model number, serial number and storage location; (3) all reference and user manuals for system components supplied by third parties; (4) all warranties documentation; (5) a diagram indicating all interconnections between components; and (6) the version number of all software.

- The As-Built document must be approved before the Region will grant Final System Acceptance.

4.12.2. Manuals and Training

- The Vendor shall provide training courses for at least twenty (20) equipment installers/maintainers, fifty (50) bus operators, twenty (20) systems administrators and twenty (20) management staff.

- The training schedule and course outlines must be provided to the Region for review at least two weeks in advance of the start of training. The training schedule and course outlines must be approved by the Region before the start of training.

- The Vendor shall furnish, for use during training courses, all special tools, equipment, training aids, and any other materials required to train course participants.

- The instructors shall have previous classroom instructor training and relevant experience with the proposed software and equipment.

- The instructors shall demonstrate a thorough knowledge of the material covered in the courses and familiarity with the training materials used in the course.

- If an instructor is considered unsuitable by the Region, the Vendor shall provide a suitable replacement.

- The Vendor shall provide an Installation/Maintenance Manual and corresponding training materials, documenting (1) how the system components were installed; (2) how to install and configure spare components; and (3) the procedures for preventative maintenance, inspection, fault diagnosis, component replacement and warranty administration on each system component. The Installation/Maintenance Manual shall clearly indicate preventative maintenance procedures that the Region must perform to validate the warranty.

- The Vendor shall provide a Software User Manual and corresponding training materials documenting use of all functions of the software.

- The Vendor shall provide a Systems Administration Manual and corresponding training materials, documenting (1) the configuration and topology of hardware and software; (2) program functions, algorithms, and operations; and (3) database structure and data dictionary.

- The Vendor shall provide additional training at no additional cost if (1) major modifications are made to the system after the initial training due to system upgrades or changes made under warranty; or (2) delays in system deployment after the initial training exceeding two months for which the Vendor is responsible.

- All manuals must be approved before the Region will grant Final System Acceptance.

- All training must be completed before the Region will grant Final System Acceptance.

4.12.3. Licenses

- The Vendor shall provide the following number of licenses per agency (
- Table 2):

Table 2: **Minimum Number of Required Licenses**

Agency/System	Fixed-Route Fleet Size
Butler County bus service (BCRTA)	10
Clermont County bus service (CTC)	10
Dearborn County **(At Exercise of Option)**	4
SORTA Metro	20
Transit Authority of Northern Kentucky (TANK)	12
Warren County bus service **(At Exercise of Option)**	5
Total	*61*

4.13. SUPPORT SERVICES/WARRANTY

4.13.1. Warranty & Support Service

- The Vendor shall warrant that it has reviewed and evaluated all information furnished by the Region and has made all inquiries necessary such that Vendor is fully aware of the Region's business requirements and intended uses of system, as set forth or referenced in the RFP and any Addenda, Amendments or Request for Best and Final Offers, as well as in discussions during the Pre-proposal Conference.

- The Vendor shall warrant that the system satisfies the foregoing requirements in all material respects and will be fit for such intended uses.

- The Vendor shall warrant that the design, materials, construction, software and workmanship of the equipment shall reflect the intended use of the equipment as a component of the overall transit management system in the Region environment.

- The Vendor shall warrant that equipment and software, including the initial supply of spare components, (1) are free from defects in design, material and workmanship, and shall remain in good working order; and (2) function properly and in conformity with this Contract.

- The Vendor shall warrant that the documentation provided shall completely and accurately reflect the operation and maintenance of the equipment and software, and provide the Region with all the information necessary to maintain the system.

- If there is a change in the production configuration of any equipment or software being installed prior to Final System Acceptance, the Region may require that all previously installed equipment and software be upgraded to match the updated configuration.

- The Vendor shall warrant compliance with all applicable laws and regulations relating to the project.

- The Vendor shall warrant that its employees, agents and subcontractors assigned to perform services under this contract shall have the proper skill, training and background to perform in a competent and professional manner and that all work will be so performed.

- The Vendor shall warrant that all guarantees and warranties are fully enforceable by the Region acting in its own name.

- During the first full year warranty period after acceptance of system (provided at no cost to the Region), the Vendor shall, at no cost to the Region, furnish such materials, labor, equipment, software, documentation, services and incidentals as are necessary to maintain the system in accordance with the warranty, including costs for the retesting of replaced components.

- The Vendor shall provide any software upgrades, fixes, updates, or version changes at no cost to the Region during the warranty period.

- In its agreements with subcontractors, suppliers and vendors, the Vendor shall require that such parties (1) consent to the assignment of such warranties and representations to the Region; (2) agree that such warranties and representations shall be enforceable by the Region in its own name; and (3) furnish documentation on the applicable warranties to the Region.

- The warranty period shall run concurrently for all system components, from their date of installation through to two years from the date of Final System Acceptance. The Vendor shall offer an option to extend the warranty period for additional one, two or three years. The Vendor shall document any differences in the warranty terms for these option years in their proposal.

- The Vendor shall provide a single point of contact for all warranty administration during the warranty period.

- The Proposer shall describe its proposed solution for developing an effective product support.

- The Proposer shall describe its helpdesk availability during normal and extended business hours, and whether SORTA/regional agencies will have access to dedicated Proposer support resources when the Proposer's helpdesk is closed, and software or data-related incidents occur.

- The Proposer shall describe how SORTA/regional agencies will obtain direct access to the Proposer's standard resources when needed.

- The Proposer shall describe its targeted response times and include a description of actual response times. The Proposer shall describe its metrics for tracking response times and problem-resolution completion rates.

- The Proposer shall describe decision criteria used to escalate incidents from support tier to a higher tier.

4.13.2. Repair or Replacement of Faulty Components

- During the warranty period, the Vendor shall repair or replace any faulty components replaced from the spares inventory by the Region, with the cost included in the warranty price. The Region will ship each faulty component to the Vendor, who shall return a new or repaired component within one week of originally receiving it. Thus, the Region supply of spare components shall not diminish during the warranty period.

- If the Vendor determines that a returned component is not faulty, the Region must receive the original component back in working order within two days of the Vendor originally receiving the returned component.

- All components received back at the Region from the Vendor will be tested in accordance with the original ATPP, and returned to the Vendor if faulty.

- The Vendor shall pay all shipping charges and any duties associated with the repair or replacement of faulty units.

- Returned or replaced spare components shall be packaged, organized and labeled in the same manner as the original supply of spare components.

4.13.3. System-wide Replacement

- If at least 25% of a given component requires repair or replacement within the two-year warranty period, the component shall be deemed to warrant system-wide replacement. System-wide replacement shall require the Vendor to replace all units of the suspect component throughout the system, whether or not they have exhibited any fault.

- Even if the system-wide replacement activity extends beyond the end of the two-year warranty period, the Vendor shall be obligated to complete it if the need was documented before the end of the warranty period.

4.14. PROJECT MANAGEMENT

4.14.1. Implementation Plan

- The Vendor shall prepare an Implementation Plan, including a detailed implementation work plan, schedule, progress payment milestones and assigned staff. The initial draft of the Implementation Plan shall be provided to Region within one week from Notice To Proceed (NTP).

- The Vendor shall participate in an Implementation Kickoff meeting as early as two weeks from NTP, at which the Vendor shall be prepared to present and discuss the Implementation Plan, and receive comments from the Region.

- The revised Implementation Plan, addressing comments from the Implementation Kickoff meeting shall be provided to the Region within two weeks from Kickoff meeting. The Implementation Plan shall be revised and resubmitted to the Region on an on-going basis, at minimum every two weeks, to reflect any changes.

4.14.2.   Bi-Weekly Conference Calls

- The Vendor shall participate in bi-weekly conference calls with the Region. Conference call facilities will be arranged and paid for by the Vendor.

- In each conference call, the Vendor shall be prepared to present and discuss current progress against the Implementation Plan and Action Items.

4.14.3.   Action Items List

- The Vendor shall maintain an Action Item List (AIL), with each item numbered and indicating the date generated, item description, assigned person, date resolved and ongoing notes on resolution.

- The AIL shall be revised and resubmitted to the Region on an on-going basis, at minimum bi-weekly following the bi-weekly conference call, to reflect any changes.

4.14.4.   Progress Reports

- The Vendor shall submit a Progress Report monthly to the Region. Each Progress Report shall summarize the current status of the entire implementation, relative to the Implementation Plan and the AIL.

4.14.5.   Invoicing

- The Vendor shall only submit invoices against the completion of agreed to performance-based payment milestones. Each invoice shall be accompanied by a Progress Report updated as of the date of the invoice; the current Implementation Plan and the current AIL.

4.15. Compliance Matrix

The following matrix lists all the functional requirements described above. This is provided to identify those requirements that are "required" and those requirements that are "required but can be modified by the potential offeror as needed". This matrix shall be completed fully and provided with your proposal, or your proposal will be determined to be non-responsive.

Those that are "required" are highlighted in yellow. Failure to be compliant with these requirements will determine the proposal as non-responsive for purposes of evaluation and that offeror will no longer be considered for this project.

For each of the requirements in the matrix, check the appropriate box under the Compliance columns.

Please note that "C"=Compliant; "NC"=Not Compliant; and "M"=Provides a Modified solution to the requirement.

Item No.	Functional Requirement	Compliance			Comments
		C	NC	M	
1	**3. FUNCTIONAL REQUIREMENTS**				
2					
3	• The Application shall include the following three services:				
4	− Regional Trip Planner				
5	− Real-time tracking of public transit vehicles				
6	− Purchase Common Fares				
7	• All three services are detailed in the sections below.				
8	• Two versions of the Application shall be provided:				
9	− A mobile device version; and				
10	− A desktop version.				
11	• Both versions may differ in appearance and formatting, due to platforms requirements; however, both versions shall provide the same functionalities and should operate in an identical manner.				
12	• A third version may also be proposed (but is not a requirement) that is tailored specifically to customer service staff.				
13	• The app shall determine the language that the phone is set to and switch to that language; or, if the app does not support that language, then default to English. At a minimum the app shall support English and Spanish.				
14	• The default home screen for the app shall be the Real-Time Bus Information module showing network map.				
15	• Users shall have the ability to designate their own home screen between the following selections:				
16	− Regional Trip Planner				
17	− Real-time tracking of public transit vehicles				
18	− Active Ticket(s)				
19	− Purchase Common Fare(s)				
20	• The vendor shall deliver a complete solution that covers, at a minimum, all the functionalities described in this solicitation.				
21	• The system shall meet all applicable standards and regulatory requirements including, but not limited to, the Americans with Disabilities Act (ADA) and Payment Card Industry (PCI) requirements.				

22	• The product being proposed shall be user friendly and easy to use and navigate by users of all ages.			
23				
24	**3.1. Scope of Work Requirements Classifications**			
25	This scope of work encompasses the following three classifications of requirements (as defined in the subsections below):			
26	a) Mandatory Requirement			
27	Any requirement that is not identified as Optional is a mandatory requirement. In the event a Proposer does not comply with any mandatory requirement, the Proposer shall clearly indicate this non-compliance in the proposal. Proposers may also provide an alternative solution that may meet the objective of the requirement in a different manner.			
28	b) Optional Requirement			
29	Optional requirements are ones that SORTA/regional agencies may or may not implement as part of this contract. The Proposer is required to offer a solution to all optional requirements and will be considered non-compliant if they do not.			
30	c) Mandatory Information			
31	Mandatory information is information which shall be provided to be fully compliant. In addition to the information requested in the "Proposal Submission Requirements" section, all information requested throughout the Scope of Work and other RFP sections are considered mandatory, and failure to provide this information, will deem a Proposer to be non-compliant.			
32	d) Future Requirement			
33	Future requirements are ones that would be desirable but are not mandatory. The Proposer will not be considered non-compliant if they do not offer a future requirement. However, Proposers are encouraged to provide a solution to Future requirements or to at least demonstrate having the capability to offer one in the future.			
34				
35	**3.2. Application Navigation**			
36	• Upon opening the application, the user shall have four choices available to him/her on the initial screen. These four selections are:			███
37	− My Tickets: lists all active passes/tickets			███
38	− Trip Planner: allows for itinerary planning			███
39	− Vehicle Tracking: displays actual locations of buses			███
40	− Purchase Fare: allows for the purchase of fares			███
41	• The above four choices shall be easily accessible through large-enough tabs or buttons. Additional selections may also be provided on the initial screen such as:			
42	− Subscribe			
43	− Sign in/Sig out			
44	− Alert Options			
45	− Settings			
46	− Contact Us			
47	• Current time and date shall be visible on all screens of the application.			

48	• In the event the user tabs/clicks on (mobile device or desktop) one of the above selections, the application shall instantly open up the screen of the selected option.				
49					
50	**3.2.1. Subscribe**				
51	• The mobile application shall automatically create an "anonymous" account upon downloading the application on a mobile device. The phone number of the device shall be used for identification.				
52	• The application shall allow users to subscribe/sign up to take advantage of additional services available through the application. Signing up/subscribing screen shall require users to enter the following information for their profile, as a minimum:				
53	– First name				
54	– Last name				
55	– Email address (optional)				
56	– Street address (optional)				
57	– Verify phone number (required)				
58	– Create and verify password (required)				
59	• The application shall allow users to update their profile anytime they want.				
60	• The app shall allow users to reset their password anytime they want.				
61					
62	**3.2.2. Sign In:**				
63	• The application shall allow users to sign in by entering the following:				
64	– Email address; and				
65	– Password				
66	• In the event that either or both the email address and password are wrong, the application shall inform the user via a message on the screen stating that the information entered is incorrect.				
67	• The application shall also provide the use with the option to always remain Signed In. If a user selects the option to remain signed in, he or she shall not be required to enter neither the email address nor the password to sign in at a later time.				
68					
69	**3.2.3. Sign Out**				
70	• In the event a user selects Sign Out, he or she will be signed out of the application. The next time the user attempts to use the application, the user shall be asked to enter his/her valid email and password.				
71	**3.2.4. Alert Options**				
72	The application shall offer the user the following alert options:				██████
73	• Alerts and notifications about region's services in general:				██████
74	– These are messages that agency's staff will push out to users, who signed up for this service, informing them about general matters related to the service.				
75	– The system shall allow agency's staff to store at least fifty (50) canned messages.				

76	− Canned messages shall be pushed out simply by selecting a canned message (by clicking on it) and hitting a Send Button.			
77	− The application shall allow staff to create ad hoc messages and canned messages.			
78	• Alerts about particular route(s):			████████
79	− Users shall be able to select up to ten (10) routes from a list of all routes in the region for which they wish to receive alerts.			
80	− Alerts shall be generated automatically by the application without any staff action.			
81	− Alerts shall be pushed out automatically by the application without any staff action.			
82	− The system shall allow transit agency to generate and push ad hoc messages.			
83	− Alerts shall also be displayed on the map when the Real-Time Bus Information module map is accessed.			
84	• Alerts about a particular route at a particular bus stop:			████████
85	− The purpose of this is to allow the application to notify a user when his/her bus is within x minutes from the bus stop where they intend to board.			
86	− The application shall allow the user to set up his/her alert by:			
87	− Allowing the user to first select (by clicking or tapping) a bus on the map			
88	• Prompting the user to select (by clicking or tapping) a corresponding bus stop that is on the already selected route (from the previous step)			
89	• Prompting the user to select number of minutes for advance warning. Number of minutes is to be entered by either typing in the number or selecting it from NumberPicker.			
90	− Once the alert is set up, the application, while it is in session, shall display a countdown to the estimated arrival time (ETA) of the bus.			
91	− When the selected bus is within the time chosen from the selected bus stop, the application shall notify the user of that. The notification shall be sent within 10 seconds of the set timeframe.			
92	− A push notification shall have a text message associated with it and be accompanied by an audible tone.			
93	− The user shall be able to set audible tone to either on or off.			
94	− Alerts shall be generated automatically by the application without any staff action.			
95	− Alerts shall be pushed out automatically by the application without any staff action.			
96	−			
97	**3.3. TRIP PLANNER MODULE**			
98				
99	**3.3.1. Objective**			
100	• The objective of the Trip Planner is to provide users the capability to generate individualized, customized trip itineraries that will help them navigate the entire regional transit system.			████████
101	• The Trip Planner application shall provide accurate walking directions, accurate transit schedules and routing, and accurate, easy to read directional maps and accurate total fare.			████████

102	• The Trip Planner shall utilize any combination of the available services in the region to create a single, cohesive, well connected and most convenient itineraries.				
103	• The Trip Planner shall create itineraries that include any of the following transportation services:				
104	a. Mandatory				
105	i. Transit Providers				
106	– Butler County bus service (BCRTA)				
107	– Cincinnati Bell Connector				
108	– Clermont County bus service (CTC)				
109	– Dearborn County (future)				
110	– SORTA Metro				
111	– Transit Authority of Northern Kentucky (TANK)				
112	– Warren County bus service (future)				
113	ii. Transportation Network Companies (TNC)				
114	– Lyft				
115	– Uber				
116					
117	b. Optional				
118	i. Red Bike (or similar)				
119	ii. Zip Car (or similar)				
120					
121	c. Future Modes				
122	i. E-scooters, if stations are available				
123	ii. Greyhound/Baron Bus/Go Bus				
124	iii. Parking garages				
125	iv. Ecolane flexible-route scheduling (Butler County)				
126	v.				
127	**3.3.2. Application Functionalities**				
128					
129	**3.3.2.1. User Interface**				
130	The user interface shall provide, at a minimum, the following functionalities:				
131	• Origin/starting Point. The user shall have the option to enter the starting point (origin) in any of the following methods:				
132	– Full address (where possible);				
133	– Intersection;				
134	– Landmark;				
135	– Clicking on a bus stop on the map;				
136	– Selecting a bus stop from a list of stop of a route;				
137	– Clicking on a location on the map; or				
138	– Current Location				

139	• Destination/Ending Point. The user shall have the option to enter the ending point (destination) in any of the following options				███████
140	− Full address (where possible);				
141	− Intersection;				
142	− Landmark;				
143	− Clicking on a bus stop on the map;				
144	− Selecting a bus stop from a list of stop s of a route; and				
145	− Clicking on a location on the map.				
146	− Current Location				
147	• User shall be able to tap a button to reverse the origin-destination order.				
148	• Misspelled Name Options. In the event a user misspells the name of a street and/or landmark, or enters a portion of a name, the system shall provide the user with a list of street and landmark names that closely resemble the misspelled entry. The system shall allow the user to select (by clicking) one of those options.				
149	• Landmarks. The system shall allow the entry of landmarks in three ways:				
150	− User to type the landmark in a text box;				
151	− Select from a series of drop down lists; and				
152	− Select from options provided by the system as described in the Misspelled Name Options paragraph.				
153	• Landmark Drop Down Lists. For landmark selection, the system shall provide the user with a series of drop down lists that allow the user to drill from a broad category of landmark down to landmark name. For example, to select Airport Hilton Hotel, the user will go through the following lists: First list will have general categories of landmarks such as Schools, Hotels, Shopping, Transportation, etc. Selecting the "Hotels" category, another drop down list shall be provided to the user. Finally, the user shall be able to point and click on his/her desired hotel (in this case Airport Hilton Hotel).				
154	• Types of Landmarks: In addition to displaying typical landmarks (i.e. hospitals, hotels, schools, government buildings, parks, malls, banks, etc…), the drop down menu shall also include locations of Zip Car and Red Bike stations.				
155	• Landmarks Updates: Landmarks and businesses information shall be maintained and updated either by the vendor or through open API from Google or equivalent.				
156	• Date. The system shall allow users to enter the date of their choice in two methods: 1-manually typing it into the Date box; and 2-clicking on a calendar pop up. The dates shall all be in Gregorian calendar.				
157	• Default Date. The default date entered in to the Date box shall be the current date (in Gregorian).				
158	• Trip Time Selection. The system shall allow the user to select the trip time by either selecting Start time or Arrival time. Other variations may also be considered such as "Leave as Early as Possible".				
159	• User shall be able to enter time in either 12-hour or 24-hour (military) time format.				
160	• Trip Time Entry. The user shall be able to enter the desired time in any of the following methods:				

161	— Type in the desired time of the trip;			
162	— Select the time from drop down list; and			
163	— Select the time through rolling DatePicker			
164	• Default Time. The default time entered in to the Time box shall be the current time.			
165	• Time and Date Validation. The system shall validate the date and time entries. If either or both are not valid entries, the system shall highlight the invalid entry and inform the user that the entry is invalid.			
166	• Mode Choices. The system shall allow the user to select preferred mode of travel. The user shall be able to selection any combination of the following services:			
167	— Local Bus;			
168	— Express Bus;			
169	— Streetcar;			
170	— TNC (Phase II);			
171	— Car Sharing, i.e. Zip Car (Optional Phase II);			
172	— Bike Sharing, i.e. Red Bike (Optional Phase II); and			
173	— Future modes i.e. eScooters, Greyhound, parking garages, and flexible routes			
174	• Additional Mode Choices. The system shall allow for additional modes to be added on in the near future. The additional modes may include, but not limited to, Feeder routes and Shuttle service.			
175	• Other User Options. The system shall provide the users with the following options:			
176	— Least Cost;			
177	— Fewest Transfers;			
178	— Fastest Time; and			
179	— Least Walking.			
180	• The default setting shall be Fastest Time.			
181	• Return Trip. The system shall allow for users to request a return trip itinerary.			
182	• The app shall learn from previous entries by the user and predict what trips (origin destinations) the user may be requesting. This may be in the form of listing previously used locations (listed alphabetically or by frequency of uses) or other method suggested by the vendor.			
183				
184	**3.3.2.2. Itinerary**			
185	• Initial Itineraries List. Once users enter their trip information, the system shall generate and list up to five (5) itineraries summaries. Each summary shall state:			■
186	— Travel time;			■
187	— Walking time/distance;			■
188	— Total cost;			■
189	— Start and end times of the trip. The user shall be able to click on any of the summaries to get the full detailed itinerary.			■

190	• As long as any transit mode is selected by the user as an acceptable option, the very first itinerary summary shall be the one with a transit component.			
191	• Detailed Itinerary. The detailed itinerary shall provide the following information:			
192	– Trip starting time: shall include both:			
193	▪ Official scheduled time; and			
194	▪ Actual arrival time of bus			
195	– Trip ending time;			
196	– Total travel time;			
197	– Walking time/distance at starting, ending and transfer points;			
198	– Transfers required;			
199	– Waiting time at transfer points;			
200	– Total fare; and			
201	– Maps (see Itinerary Maps paragraph).			
202	• Itinerary Maps. The itinerary shall provide the users with the following maps;			████
203	– A map showing the overall trip, from origin to destination;			████
204	– Detailed walking map from origin to initial transit stop;			████
205	– Detailed walking map from last transit stop to destination; and			████
206	– Detailed walking map at transfer location if users are required to change location to complete their transfer.			████
207	• Display of buses' actual location: the application shall provide the user with the option to turn on or off the display of buses actual location running on the selected itinerary.			
208	• Map Zoom. The system shall allow the user to zoom in and out of the maps.			
209	• Information on Map. The maps generated by the itinerary shall display the following information:			
210	– Identify origin and destination points;			
211	– Travel route described in the itinerary;			
212	– Walking directions and route;			
213	– Landmarks;			
214	– Different street categories (depending on the zoom level); and			
215	– Important geographical features (such as lakes, rivers, creeks).			
216	– Any alerts as set up by the user.			
217	• The proposed system shall be capable of integrating with Google map. The vendor may also propose better alternatives.			
218	• Aerial Maps. The system shall allow the user to select from the following map display options:			
219	– Show Streets only;			
220	– Show Aerial Only;			
221	– Show Both Streets and Aerial.			
222	• Schedule Times on Maps. With routes displayed on the itinerary maps, the system shall allow the user to click on any of the transit stops to view scheduled times of transit vehicles.			

223	• Trip Not During Service Period:				
224	− In the event a user's requested trip falls outside the normal service hours of the desired service, the system shall provide the user with a list of routes (that would normally serve his request). The user shall be able to click on the schedules to open them up and check their times. Additionally, the system shall provide the user with the earliest itinerary that serves his/her needs. For example, if a user wants to arrive at a destination at 4 a.m. (which may not be within any of the provider's service hours), the system shall inform the user that the earliest option would be 12:30 a.m.				■
225	− If the user has turned off a particular mode (i.e. TNC) and that mode is available, the app shall provide the user with this option with a message explaining the reason this mode is being listed.				
226	• Printing Itinerary. The itinerary shall allow the users to print the itinerary.				
227	• E-mailing Itinerary. The itinerary shall allow the users to e-mail the itinerary to any valid e-mail address.				
228	• Saving Itinerary. The itinerary shall allow the users to save the itinerary in an appropriate format for later retrieval.				
229	• The itinerary shall allow the user to click on the calculated fare to purchase the fare.				
230	a. In the event that the user clicks on the displayed fare, the application shall open the fare payment tab.				
231	b. All relevant information shall be automatically transferred to the fare payment module.				
232	c. Non-transit Reservations:				
233	i. Phase 1 (by end of August 2019): in the event a portion of the itinerary is by a mode other than transit (e.g. through TNC, Zip Car, or Red Bike), the application shall allow the user to click on the suggested mode (listed in the itinerary) to automatically open up that service's App—allowing the user to reserve that service. Cost sharing among transit agencies is to be handled at the back office.				■
234	ii. Phase 2 (beyond August 2019): the app shall display a single fare for all modes and the user shall be required to pay a single fare for their entire trip. Cost sharing among transit and non-transit entities is to be handled at the back office.				■
235	• Trips Completion Dates. The system shall generate itineraries for trips to be completed the same day, the next day, and any other future date.				
236	☐				
237	**3.3.2.3. General**				
238	• Customer Service Screens. If the system proposed provides special version for customer service representatives, then the screens, options, and functionalities of customer service version shall be identical to general public's version (that is both need to see the exact same thing).				
239	• Reports. The system shall allow transit agencies to generate the following reports for any period of time:				
240	− Number of hits (visits)				
241	− Landmarks (listing their addresses) used for origins and destinations				

242	– Origins and destinations by address				
243	– Origins and destinations by area of City (i.e., so many origins from Blue Ash, or ZIP code)				
244	– Origins and destinations by travel time requested				
245	– Mode choices				
246	– Number of completed itineraries				
247	– Number of users purchased fare through Itinerary Planning link.				
248					
249	**3.4. REAL-TIME BUS INFORMATION MODULE**				
250	The Region is interested in providing Real-Time Bus Information to its customers. The Contractor shall provide a system that is capable of the following functionalities:				
251	• As Optional: For agencies which vehicles are not equipped with tracking systems, the vendor shall propose an economical solution to acquire real-time location of such vehicles.				
252	• The vendor shall submit a solution that shall provide accurate trip planning and real-time information even when a subset of the regional fleets may not be equipped with tracking systems.			■	
253	• In the event that the system loses location data of a bus, or a driver isn't logged on, the system shall automatically revert to using scheduled data. The system shall automatically switch to using actual location of buses when data communications is re-established with that bus.			■	
254	• Access of Real-Time Bus Information				
255	• Upon clicking or tapping on the Real-Time Bus Information option, the application shall instantly open up a map showing the current location of the user—if "Share My Location" is turned on.			■	
256	• The map shall include all of the following features:				
257	– All critical geographical features (features subject to approval by agencies' staff)				
258	– Road network				
259	– Rail tracks				
260	– Landmarks				
261	– Region's bus routes				
262	– Actual locations of buses on bus routes				
263	– Zip Car and Red Bike stations				
264	• Map Zoom. The system shall allow the user to zoom in and out of the maps.				
265	• Aerial Maps. The system shall allow the user to select from the following map display options:				
266	– Show Streets only;				
267	– Show Aerial Only;				
268	– Show Both Streets and Aerial.				
269	• Users of the system shall, upon clicking on a particular vehicle on the map, be able to get:			■	
270	– Route number			■	
271	– Destination of bus			■	

272	− Schedule deviation information				
273	− Time of last real-time update				
274	• Users of the system shall, upon clicking on a bus stop on the map, be able to get:				
275	− A list of all next buses of every route serving that stop				
276	− Actual arrival time of each of the buses stated in the previous bullet				
277	• The application shall allow users to select from a drop down list or NumberPicker a particular route number to be displayed.				
278	• The application shall allow users to subscribe to receive schedule deviation information about their choice route/s. The system shall send push notifications. See Alerts Requirements in previous section.				
279	• The app shall allow the users to select their favorite routes (up to 10).				
280	• All favorite routes with their associated bus locations and alerts shall be displayed on the Real-Time Bus Information map.				
281	• The application shall provide capability to generate detailed reports on usage of the application. Staff shall be able to generate reports on:				
282	− Routes, trips, direction of services requested				
283	− Times of day and day of week of service requested				
284					
285	**3.5. FARE PAYMENT MODULE**				
286					
287	**3.5.1. Project Overview**				
288	This requirement involves the design, installation, testing and commissioning of a mobile ticketing system with the following main objectives:				
289	1. Enhance customer convenience and customer experience				
290	2. Increase operational efficiency through reduced cash handling and reduced paper and plastic based fare ticket usage				
291	3. Increase ridership				
292					
293	**3.5.2. General Requirements**				
294					
295	• The proposed system shall allow maximum fare capping (e.g., the system shall stop charging a passenger, paying by trip, when his/her daily total fare is equal to what a day-pass fare costs. Similarly for weekly and monthly fares).				
296	• The mobile ticketing system shall provide a secure, reliable and intuitive system for customers to procure electronic fare tickets using their mobile telephones.				
297					
298	**3.5.3. Functional Requirements**				
299	• This section describes the required functionality.				
300	• Proposers shall provide a complete and detailed functional description of their system.				
301					
302	**3.5.3.1. Mobile Ticketing Smartphone Application (App)**				

303	• The Contractor shall provide smartphone and tablet mobile ticketing applications ("apps") for, at a minimum, the following platforms:			■
304	1. iOS			■
305	2. Android			■
306	• Customers shall be able to easily download their app for free from their app store.			
307	• The app shall allow customers to buy Regional fares and passes described in fare structure provided in Section 2.9.			■
308	• The app shall incorporate Regional branding design (provided by SORTA/regional agencies).			
309	• The app shall provide the following components, which are described further in the subsections below:			
310	1. Ticket purchase			
311	2. Acquisition and "permanent storing" of payment card information			
312	3. Transaction terms and conditions			
313	4. Ticket display			
314	5. Help and "About the App"			
315	6. Integration of trip planning			
316	7. Instant customer feedback form including comments and 5-star rating scale (users may be able to turn this feature on or off)			
317	• The app shall have an open API to integrate more easily with future applications.			
318				
319	**3.5.3.2. Ticket Purchase**			
320	• Transit riders shall be able to easily and quickly purchase fares with the minimum number of taps (preferably no more 3 or 4 taps).			
321	• The app shall allow customers to select ticket(s) or pass(es) and the number of riders. Following the customer's selections, the app shall summarize the tickets and number of riders in the checkout screen for the customer's confirmation.			
322	• If directed to Fare Payment module from the Trip Planning module, all relevant fare-related information generated in Trip Planning module shall be automatically populated in their appropriate fields in the Fare Payment module. For example, if the Trip Planning module calculates a one-way fare of $2.50, for a requested itinerary, the type of fare and its amount shall be automatically passed on to the Fare Payment module.			■
323	• In the case where fare type and amount are imported from the Trip Planning module, the user shall have the opportunity to override that option and select a different fare (for example, override the suggested one-trip fare and select a day pass).			■
324	• Credit card payment required information shall, at a minimum, the following:			
325	a. Card number			
326	b. Name on Card			
327	c. Expiration date			
328	d. Security Code			
329	e. Option to store card information			

330					
331	**3.5.3.3.** **Reduced Fare Tickets**				
332	• As indicated in Section 2.9, Region's fare structure includes reduced fare tickets for pre-screened and pre-approved eligible customers.				
333	• The system shall offer reduced fare tickets and passes only to eligible customers, based on either their mobile telephone numbers or passwords (with these numbers possibly being set up by customer service).				
334					
335	**3.5.3.4.** **Acquisition and "Permanent Storing" of Payment Card Information**				
336	• Following confirmation of the type and number of tickets in the checkout screen, the app shall request the customer's payment card information during each purchase or allow the customer to provide his/her payment card information on a more "permanent" basis without having to enter it with every purchase.				
337	• The customer shall have the choice at any time to change or remove the "permanent" payment card information.				
338	• The system shall handle the payment card information in a PCI compliant manner, and proposers shall explain how their systems meet this requirement.				■
339	• The app shall accept payment via major credit and debit cards – including:				■
340	1. MasterCard;				■
341	2. Visa;				■
342	3. American Express; and				■
343	4. Discover.				■
344	• Vendors may propose other online payment methods – including Apple Pay, Google Wallet, and PayPal.				
345	• The app shall provide the customer the option to email a receipt for each purchase, both as the purchases occur and for past purchases upon request.				
346					
347	**3.5.3.5.** **Transaction Terms and Conditions**				
348	• Upon acquiring the payment card information, the app shall present the customer with the terms and conditions.				
349	• Following acceptance of the terms and conditions by the customer, the system shall process the payment.				
350	• The Contractor shall provide samples of industry best practice mobile ticketing terms and conditions which shall review and finalize during the design stage.				
351	• The regional partners shall be able to edit the terms and conditions at any time.				
352					
353	**3.5.3.6.** **Ticket Display**				
354	• Upon successful processing of payment, the app shall display the mobile ticket which should allow visual and electronic (e.g., barcode, NFC, Bluetooth) validation.				■
355	• Tickets can have one of the following three states:				

356	1. Pending – the state when the ticket or pass is initially purchased but has not been activated by the customer and is invalid for use				
357	2. Active – valid for use upon activation of a pending ticket by the customer				
358	3. Expired – invalid ticket following the expiry of the ticket or pass				
359					
360	**3.5.3.7. Pending Tickets**				
361	• A list of pending tickets or passes shall be stored in a "wallet" prior to activation.				
362	• Visual appearance of the pending tickets shall be different than active tickets.				
363	• Within the ticket wallet, pending ticket shall be identified by ticket type and provide the quantity of each ticket type available for activation.				
364					
365	**3.5.3.8. Active Tickets**				
366	• Active tickets/passes shall display the following:				
367	1. Logo (to be provided by regional partners)				
368	2. Ticket colors assigned according to ticket type				
369	3. Dynamic current date and time clock counting to 0.10 of a second (to avoid screenshot and video clip fraud)				
370	4. Activation date and time clock counting to 0.10 of a second (to avoid fare evasion)				
371	5. Background animation (to avoid screenshot and video clip fraud)				
372	6. Dynamic 2-dimensional barcode (for electronic validation)				
373	7. Ticket type and cost				
374	8. Dynamic expiry countdown timer counting to 0.10 of a second				
375	9. Rider class (full-fare, student, senior, etc.)				
376	10. Unique ticket ID				
377	• Customers shall be able to activate a pending ticket/pass even when they do not have data connectivity (or are "offline").				
378	• In the event a ticket/pass is activated offline, the app shall update the central system as soon as the mobile phone obtains data connectivity (or goes "online").				
379	• Customers shall have 5 minutes to use a single ride ticket following activation.				
380	• Multiple tickets/passes may be active at the same time, allowing users to pay for other riders' fares.				
381	• If multiple tickets/passes are active, the individual active tickets/passes shall be accessed by swiping to the right or left.				
382	• The reader shall be capable of detecting basic internal malfunctions and shall communicate failures to back end system. The malfunction detection shall cover at least failure of power or control circuitry and any failure of the fare read unit that could result in a false, incomplete, or corrupted reading of a fare product				
383					
384	**3.5.3.9. Expired Tickets/passes**				

385	• When active tickets/passes expire, the ticket should disappear from the screen and be replaced with a "No Active Tickets" message.			
386	• Expired tickets/passes shall be listed in Rider History.			
387				
388	**3.5.3.10. Help and About the App**			
389	• The app shall provide help in the form of Frequently Asked Questions (FAQs), which the regional partners will provide. Regional partners shall have the ability to edit the FAQs at any time.			
390	• "About the app" shall provide the following information:			
391	1. Customer mobile phone number			
392	2. Customer account number			
393	3. App version			
394	4. Device model (e.g., Apple iPhone 5s)			
395	5. Platform and version (e.g., iOS 8.1.3)			
396	• The app shall allow the customer to send the "About the app" information above to an agency's customer service to assist customer service in resolving customer problems.			
397				
398	**3.5.3.11. Mobile Ticketing Website**			
399	• A website shall be included providing the following information to customers:			■
400	1. Links to download the app at the App Store, Google Play or other			■
401	2. Terms and Conditions			■
402	3. Frequently Asked Questions (FAQ)			■
403	4. Privacy Policy			■
404				
405	**3.5.3.12. Transaction and Use Reports**			
406	• Customers, through the App, and customer service representatives, through their system, shall be able to obtain order and use history reports. The order history report shall show all purchases made by the customer for a selected time period up to 24 months in the past. The use report shall list all the uses of tickets for a selectable time period up to 24 months in the past.			■
407				
408	**3.5.3.13. Website Application**			
409	• Currently, there are organizations in the region – including employers, colleges, and social service agencies –that provide transit-fare products to their members (i.e., employees, students, and clients). The mobile ticketing system shall allow administrators at these organizations to purchase mobile tickets for its members. The system shall support pre-payment through bank cards.			■
410	1. Group Sales			
411	2. Group subscription			
412	3. Group payment			

413	• The Web Application issuing and recharging process shall include the following requirements and capabilities.			
414	• A customer will be able to:			
415	a. Use any web browser.			
416	b. User shall be able to purchase products through the Web Application and direct the products to his/her mobile device.			
417	c. Log-on with user name and password.			
418	d. Add value to a product.			
419	e. Register a mobile device/phone number.			
420	f. Make purchases using a bank card			
421	• The Web Application shall be capable of the following:			
422	a. Manage all bank card loading through a gateway service. No credit card information shall be stored on any regional agency's servers.			
423	b. Send e-mails to all registered users describing special marketing programs and opportunities.			
424	c. Send e-mails to all registered users when there is any special activity regarding the expiration date of their credit card.			
425	d. Send emails to all registered users when any of their products is being cancelled or black listed.			
426	e. The system shall allow the users to opt out of receiving any of the notification e-mails described above.			
427	f. Provide monthly history activity reports to registered users.			
428	g. Provide a special page for each registered organization accessed through a user name and password that will allow the registered organization to add value to a single or group of users. It shall be possible to add a different value to each device.			
429	h. The information from the registered organizations shall be accessed by regional agencies' employee through an administrative site controlled by user name and password.			
430	i. All invoicing and billing for all services provided to the registered organizations shall be handled automatically by the web site.			
431	j. Security controls for accessing the web site will include the requirement that a customer register and select a user name and password.			
432	k. When using a bank card a customer shall be required to provide at a minimum their name, address, card type, card number and CVV.			
433	l. Allow agencies to send text questions to users (for feedback)			
434	• The web site and all associated data and reports shall be protected from a security perspective from unauthorized hacking and external access.			
435	• The proposed system shall have the capability to import existing clients' data from Excel files. These files may contain clients' names, ID numbers and phone numbers.			
436				
437	**3.5.3.14. Payment Processing**			

438	• It shall be required from the vendor to interface the mobile ticketing system with Chase payment processing services such as: Paymentech, SORTA's online payment gateway service provide or other agency per SORTA/region's preference.			■
439	• The vendor shall be responsible for all aspects of contacting, completing and filing all required forms and applications, and setting up communications with the preferred payment processing service.			■
440	**3.5.3.15. Mobile Ticket Validation and Fraud Prevention for Transit Tickets**			
441	• The mobile ticketing system shall provide functionality for:			■
442	1. Visually by the driver and/or inspectors.			■
443	2. Electronically with electronic readers (as an Option)—installed at each door onboard transit vehicles.			■
444				
445	**3.5.3.16. Visual Validation**			
446	• The mobile ticketing system shall allow operators (drivers), supervisors and inspectors to visually validate a mobile ticket on a smartphone.			
447	• Smartphone mobile tickets shall include the following for visual validation and fraud prevention purposes:			■
448	1. Dynamic current date and time clock counting to 0.10 of a second (to avoid screenshot and video clip fraud)			■
449	2. Activation date and time clock counting to 0.10 of a second (to avoid fare evasion)			■
450	3. Background animation (to avoid screenshot and video clip fraud)			■
451	4. Dynamic 2-dimensional barcode (for electronic validation)			■
452	5. Dynamic expiry countdown timer counting to 0.10 of a second			■
453	6. Back-side or up-swipe second page on valid active tickets (to avoid video clip fraud)			
454				
455	**3.5.3.17. Electronic Validation**			
456	• The smartphone mobile ticket shall include a two dimensional (2D) barcode for automatic electronic validation.			
457	• The system shall use a common industry standard QR or barcode symbology – such as, the Aztec 2D symbology. The 2D barcode shall be encrypted using dynamic keys so the barcode changes at a configurable frequency (to avoid screenshot fraud).			
458	• Additional electronic validation functions like near field communication (NFC) and Bluetooth shall be included as optional in addition to the QR and barcode system.			
459	• Validation by Onboard Readers			
460	The Vendor shall supply readers onboard transit vehicles for ticket validation. The readers shall perform the following functions:			
461	a. Seamlessly interface with the onboard MDT and farebox to acquire:			
462	i. Date and Time			
463	ii. Location (lat/long) of each transaction			
464	iii. Bus number			

465	iv. Route, run, block number and direction				
466	v. Driver's number				
467	vi. Fare zones information				
468	b. Each ticket read attempt by the reader shall generate an automatic transaction.				
469	c. Each transaction shall include the following information:				
470	i. Ticket number				
471	ii. Ticket type used (single ride, daily pass, etc...)				
472	iii. Device used				
473	iv. Indication whether the ticket is valid or not				
474	v. Date and time				
475	vi. Long & Lat of transaction				
476	vii. Vehicle number				
477	viii. Driver's number				
478	ix. Route, run, block and direction				
479	x. Location of reader (front door or rear door)				
480	xi. User's ID number (subscription number) if subscribed				
481	xii. Zones travelled.				
482	d. The reader shall, at the end of each transaction, send the above data to the back end system instantaneously.				
483	e. The reader shall have real-time communications with the back-end system for verification of tickets and passes.				
484	f. In case there is a loss of communications with the back-end system, the reader shall store all data in the unit.				
485	g. Upon reestablishing communications with the back-end system, the reader shall automatically upload all stored transactions data to the back-end system.				
486	h. An option for one or more agencies is for the reader to validate tickets and passes without data connection. Upon returning to the garage, the reader shall download/upload data via Wi-Fi connection.				
487	i. The reader shall be a rugged device that withstands the daily operations of a transit vehicle.				
488	j. The reader shall withstand temperatures between -50 F and 140 F.				
489					
490	**3.5.3.18. Handheld Validator**				
491	• Handheld Validators (HV's) shall be provided in accordance with the requirements of this specification.				
492	• The HV shall be a compact, self-contained device consisting of a reader (QR, barcode, NFC as examples), function keys for inspector input, display screen, transaction status indicators, audio transducer, and power supply.				
493	• The HV shall be designed to provide speedy inspection (less than 2 seconds).				

494	• Fare Inspectors will utilize HVs to verify that the customers' products are valid for the current trip.			
495	• The HV shall communicate with the Central Computer System (CCS) via a charging/data cradle, which shall also be used to charge the HV batteries.			
496	• In general, the HV shall:			
497	a. Read fare products			
498	b. Display validity and value information upon request			
499	c. Register and store ticket/pass information and data entered by the fare inspector			
500	d. Provide different audible annunciations for valid and invalid transactions			
501	e. Communicate with the CCS to transmit and receive data regarding fare products reviewed via the charging/data cradle			
502	f. The HV shall contain non-volatile memory that shall record inspection-related data for each transaction processed.			
503	g. The HV shall be capable of detecting basic internal malfunctions and shall annunciate failures to the display for the inspector to review. The malfunction detection shall cover at least failure of power or control circuitry and any failure of the fare read unit that could result in a false, incomplete, or corrupted reading of a fare product			
504	h. The HV will incorporate an indicator to inform the inspector of a low battery condition. This indicator shall activate when less than 2 hours of power remains.			
505	i. When the HV has been inactive for an Agency-adjustable period (initially set to 5 minutes), it may revert to a sleep mode requiring depression of a designated key to activate the unit, for the sake of preserving battery power. User log-on shall not be again required.			
506	j. If the sleep mode is provided, then after an Agency-adjustable period in that mode (initially set to 30 minutes), the HV shall shut down completely, and shall require the user to log on after restoring power.			
507	k. In order to place an HV into service the fare inspector will be required to enter a user name and password.			
508	• The HV shall be a rugged, industrialized handheld computer or, alternatively, may be an App on a smartphone. A touch screen display may be used in conjunction with a limited number of buttons for fixed and variable use.			
509	• The HV shall be rugged, small, and easy to use; however, it recommended that the product operates on an industry standard platform.			
510	• Consideration will be given to cell phone/data technology.			
511	• It shall not be necessary to remove the batteries from the HV to perform recharging. Full recharging of an HV battery shall require no more than four hours.			
512	• HV shall be designed to be easily accommodated in a hand and shall be easy to grasp.			
513	• The HV shall be a single piece of equipment and shall not require additional external modules for power, data storage or other functions as defined within these specifications.			
514				
515	**3.5.3.19. Additional Fraud Prevention Functionality**			

516	• The system shall allow the removal of tickets from lost or stolen mobile phones.				
517	• The system shall allow for the deactivation and/or suspension of customer accounts.				
518	• Proposers shall indicate additional fraud prevention functionality their system provides.				
519					
520	**3.5.3.20. System Operation, Administration and Maintenance**				
521	• The Contractor shall be fully responsible for the maintenance of the mobile ticketing system.				■
522	• The System shall provide regional agencies' system administration capability (as detailed below) for:				■
523	1. System configuration (that is, fare structure modification)				■
524	2. Customer service				■
525	3. Statistics and reports				■
526	• The System shall allow different levels of system access for different users, which shall be set by the agency's System Administrator(s).				
527	• Following are the different areas of access which shall be assigned to different users:				
528	1. System administration (with the ability to provide different access levels to different users)				
529	2. System configuration (with the ability to modify the fare structure)				
530	3. Customer service (excluding financial transactions)				
531	4. Customer service (including financial transactions)				
532	5. Reports and statistics				
533					
534	**3.5.3.21. System Configuration**				
535	• The System shall allow regional partners to update its fare structure including:				■
536	1. Adding new fare types				■
537	2. Deleting fare types				■
538	3. Adjusting prices of fare types				■
539					
540	**3.5.3.22. Customer Service**				
541	• The System shall provide customer service functionality for an agency's customer service to address customers' issues over the telephone.				■
542	• At a minimum the System shall allow Customer Service Representatives (CSRs) to:				
543	1. Run customer order and purchase history reports				
544	2. Run customer use reports				
545	3. Resend ticket				
546	4. Cancel ticket				
547	5. Block customer temporarily/permanently (from using the System)				
548	6. Provide refunds to customers				
549	7. Issue mobile tickets				

550	8. Transfer a ticket wallet (with pending, active and expired tickets) from one phone to another				
551					
552	**3.5.3.23. Reports**				
553	• The System shall provide reports (as described further below) related to:				
554	1. Sales				
555	2. Usage				
556	3. CSR audits				
557	4. Customer detail				
558	• The reports shall be exportable in the following file formats:				
559	1. CSV				
560	2. MS Excel				
561	3. PDF				
562	4. MS Word				
563	• All the different report types, in addition to providing data on transit tickets, shall also provide data on usage for the types of passes indicated in the fare structure table.				
564	• The system shall allow for ad hoc reporting.				
565					
566	**3.5.3.24. Sales Reports**				
567	The System shall provide sales reports for selected time periods to include selected days of the week (up to five (5) years back) based on:				
568	a) Total sales (quantities and dollar amounts)				
569	b) Ticket type (quantities and dollar amounts)				
570	c) Rider type (quantities and dollar amounts)				
571	d) Purchase dates and times				
572	e) Location (as available)				
573	f) Remaining, unused balances (e.g., unused remaining days of period passes)				
574					
575	**3.5.3.25. Usage (or Ridership) Reports**				
576					
577	Usage (or ridership) data, including trips conducted using period passes (which may not require ticket activation for each ride) is very important to regional partners. The System shall provide usage reports based on:				
578	a) Ticket activation				
579	b) Activation location (as available)				
580	c) Onboard validation instances including route, date and time information				
581	d) Location of active ticket display screen recall				
582	e) Ridership by location, route, direction, date/time				
583	f) Passenger miles traveled				
584	g) NTD-related reports				
585					

586	**3.5.3.26.** **Customer Service Representative (CSR) Audit Reports**				
587					
588	The CSR audit report shall indicate all financial adjustments made by each CSR including:				████
589	a) Refunds				
590	b) Resends				
591	c) Cancellations				
592	d) Customer blocks				
593	e) Provision of free tickets				
594	f) Transfer of tickets from one phone to another				
595					
596	**4. Other Requirements**				
597	**4.1. Systems Engineering Approach**				
598	• The Vendor shall follow Systems Engineering approach in all phases of design, testing, and installation.				████
599	**4.2. System Architecture and System Availability**				
600	• The proposers shall provide a detailed description of their proposed solution's hardware and software system architectures – including all systems, subsystems and system interfaces comprising their proposed solution.				████
601	• The mobile ticketing system shall be hosted with the system servers located at the Contractor's or a third party's data center.				████
602	• Proposers shall discuss methods used to ensure a high degree of system availability – including redundancies and soft failure methods to optimize system availability.				████
603					
604	**4.3. System Integration**				
605	• In the event the proposed solution integrates to any agency's existing systems – such as, the FIS fare collection system, Trapeze scheduling system, GTFS service data,- proposers shall provide detailed descriptions of all central system and/or onboard system interfaces, and as part of the system design following contract execution, Interface Control Documents, detailing these interfaces.				
606					
607	**4.4. Equipment Reliability**				
608	• Proposers shall indicate the equipment reliability of all proposed hardware in terms of Mean Time between Failure (MTBF) – including, all proposed onboard equipment, handheld equipment, and any other hardware utilized.				
609					
610	**4.5. Contractor Responsibilities**				
611	• The Vendor shall be responsible for all services related to the project, except those stated as Region's responsibilities. These Vendor services shall include, but not be limited to:				
612	1. Project management				
613	2. System design				

614	3. Hardware and software supply				
615	4. System installation				
616	5. Testing				
617	6. Training				
618	7. Commissioning				
619	8. Operations, administration and maintenance (OA&M)				
620					
621	**4.6. Region's Responsibilities**				
622	• The regional agencies shall be responsible to perform the following:				
623	1. Assign a project manager to coordinate activities and to act as a single point of contact for the Vendor for project-related activities				
624	2. Participate in the project kick-off and regular project meetings				
625	3. Conduct the design reviews				
626	4. Make vehicles accessible for installation				
627	5. Provide space (including electrical power) for the installation of vehicle equipment				
628	6. Participate in system testing				
629	7. Participate in training				
630	8. Recruit test customers				
631	9. Conduct project marketing and public education				
632	10. Provide customer service				
633	11. Obtain test customer feedback				
634	12. Obtain agency departments' feedback				
635	13. Conduct testing evaluation (including a test evaluation report)				
636	• Other than these responsibilities, the Vendor shall be responsible for all aspects of the mobile ticketing project.				
637					
638	**4.7. Data Ownership**				
639	• Any, and all, data collected (by any method or means) via any of the systems stated in this RFP shall be the sole property of the Region. Neither the Vendor nor any of its subcontractors shall require any fees or payment from the Region to store, copy, save or use the collected data.				■
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641	**4.8. BULK DATA TRANSFER**				
642	• The system shall allow for Wi-Fi bulk data transfer in order to (1) download software updates/patches for onboard devices; and (2) upload any archived transaction data. The software shall be configurable to determine frequency and types of data transfers.				
643	• The bulk transfer system shall automatically initiate communications with any device without any operator interaction being required.				
644	• In the event communications with a device is lost, the bulk data transfer system shall automatically initiate all required file transfers once Wi-Fi communications is re-established with the vehicle.				

645	• A validation process must be established to repeatedly attempt to complete all required file transfers until acknowledgement has been received that the file transfer was successfully completed.				
646					
647	**4.9. DESIGN REVIEW**				
648	• The Vendor shall submit a Preliminary Design Review document for SORTA/Regional Partners' (Region) approval prior to purchasing any equipment or undertaking any software development/customization. The Preliminary Design Review document shall be submitted to Region 2 weeks in advance of the Preliminary Design Review meeting.				
649	• The role of this review will be to reduce the chance of any misunderstandings on the design intent or interpretation of the specifications. Approval of the Preliminary Design Review document shall not alter the need for the successful completion of Acceptance Testing.				
650	• The Vendor shall participate in a Baseline Requirements Review meeting in conjunction with the Implementation Kickoff meeting, at which the contractual requirements will be discussed and the Vendor shall be prepared to provide initial feedback on their intended design approach to address each requirement.				
651	• The Vendor shall participate in a Final Design Review meeting, at which the Vendor shall be prepared to present and discuss the Final Design Review document.				
652	• The Final Design Review document shall be submitted to Region at least 3 weeks in advance of the Final Design Review meeting.				
653					
654	**4.10. GENERAL INSTALLATION REQUIREMENTS**				
655	• All installations shall be performed outside of agency's operating hours, except with prior agreement from that agency. The Vendor shall be responsible for installation and configuration of all Vendor or Region provided equipment, and all Vendor-provided software for the solution.				
656	• The Vendor shall provide all the necessary personnel, tools, test equipment, transportation, hardware and supplies for the successful and complete installation of all equipment and software. The Vendor shall be responsible for subcontractors' performance and safety.				
657	• All installations shall be performed in accordance to all Federal, State and Local laws and regulations. All installations shall be performed in a neat and workmanlike manner. Material shall be of the best quality to meet the needs and intent of the specifications.				
658	• The Vendor shall perform, document and submit for Region approval a pre-installation inspection and test of each installation site noting the existing condition of any structures, wiring, fixtures and finishes that may be affected by the installation.				
659	• The Vendor shall be responsible for restoring the condition of any affected structures, wiring, fixtures and finishes at the installation sites.				
660					
661	**4.11. ACCEPTANCE TESTING REQUIREMENTS**				

662	• The Vendor shall submit an Acceptance Test Plan and Procedures (ATPP) document for Region approval prior to undertaking any Acceptance Testing.				
663	• The ATPP document shall clearly address (1) how each testable specification requirement will be demonstrated, including the method for performing the test; (2) the results that will constitute success for each test; and (3) the responsibilities of both Vendor and Region representatives during each test.				
664	• The ATPP document shall be submitted to the Region at least two (2) weeks in advance of the Acceptance Test Review meeting.				
665	• The ATPP document shall address Factory Testing (if necessary), Installation Testing, System Testing and Burn-In Testing.				
666	• Factory Testing (if necessary), Installation Testing and System Testing must be witnessed by Region representatives (Region employees or designated support consultants).				
667	• The Vendor shall provide written notice to the Region at least five days in advance of any testing, indicating the specific tests to be completed as well as the date, time and location.				
668	• Factory Testing (if necessary) shall be completed before the equipment and software is shipped to Region for installation, and deficiencies shall be rectified before shipping.				
669	• Installation Testing shall be completed after each installation, and deficiencies shall be rectified before the initiation of System Testing.				
670	• System Testing shall be completed after the entire system has been installed, and deficiencies shall be rectified before the initiation of Burn-In Testing. System Testing shall include the testing of all spare components.				
671	• Burn-In Testing shall be completed over a 21-day period with the system in operational use, and deficiencies shall be rectified before the Region will grant Final System Acceptance.				
672	• The Vendor shall provide written Test Results documentation within one week of completing each stage of testing. All Test Results documentation must be approved before the Region will grant Final System Acceptance.				
673	• The Region will document all deficiencies identified through any stage of Acceptance Testing in a "punch list," and Final System Acceptance will not be granted until all items on the punch list have been resolved.				
674	• If any test needs to be repeated, the Region may require the Vendor to reimburse the Region for its additional costs in providing Region witnessing representatives.				
675					
676	**4.12. DOCUMENTATION, LICENSES AND TRAINING REQUIREMENTS**				
677	**4.12.1. Configuration Management**				

678	• The Vendor shall provide an As-Built document to Region at the completion of the implementation. The As-Built document shall include (1) an inventory of all components supplied including supplier, model number, serial number and installation location; (2) an inventory of all spare parts supplied including supplier, model number, serial number and storage location; (3) all reference and user manuals for system components supplied by third parties; (4) all warranties documentation; (5) a diagram indicating all interconnections between components; and (6) the version number of all software.				
679	• The As-Built document must be approved before the Region will grant Final System Acceptance.				
680					
681	**4.12.2. Manuals and Training**				
682	• The Vendor shall provide training courses for at least twenty (20) equipment installers/maintainers, fifty (50) bus operators, twenty (20) systems administrators and twenty (20) management staff.				
683	• The training schedule and course outlines must be provided to the Region for review at least two weeks in advance of the start of training. The training schedule and course outlines must be approved by the Region before the start of training.				
684	• The Vendor shall furnish, for use during training courses, all special tools, equipment, training aids, and any other materials required to train course participants.				
685	• The instructors shall have previous classroom instructor training and relevant experience with the proposed software and equipment.				
686	• The instructors shall demonstrate a thorough knowledge of the material covered in the courses and familiarity with the training materials used in the course.				
687	• If an instructor is considered unsuitable by the Region, the Vendor shall provide a suitable replacement.				
688	• The Vendor shall provide an Installation/Maintenance Manual and corresponding training materials, documenting (1) how the system components were installed; (2) how to install and configure spare components; and (3) the procedures for preventative maintenance, inspection, fault diagnosis, component replacement and warranty administration on each system component. The Installation/Maintenance Manual shall clearly indicate preventative maintenance procedures that the Region must perform to validate the warranty.				
689	• The Vendor shall provide a Software User Manual and corresponding training materials documenting use of all functions of the software.				
690	• The Vendor shall provide a Systems Administration Manual and corresponding training materials, documenting (1) the configuration and topology of hardware and software; (2) program functions, algorithms, and operations; and (3) database structure and data dictionary.				
691	• The Vendor shall provide additional training at no additional cost if (1) major modifications are made to the system after the initial training due to system upgrades or changes made under warranty; or (2) delays in system deployment after the initial training exceeding two months for which the Vendor is responsible.				

692	• All manuals must be approved before the Region will grant Final System Acceptance.				
693	• All training must be completed before the Region will grant Final System Acceptance.				
694					
695	**4.12.3. Licenses**				
696	• The Vendor shall provide the following number of licenses per agency (Table 2):				███
697	10 for Butler County bus service (BCRTA) 10 for Clermont County bus service (CTC) 4 for Dearborn County (Optional 20 for SORTA Metro 12 for Transit Authority of Northern Kentucky (TANK) 5 for Warren County bus service (Optional				███
698	**4.13 MAINTENANCE REQUIREMENTS/WARRANTY**				
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702					
703					
704	**4.13.1. Warranty & Support Service**				
705	• The Vendor shall warrant that it has reviewed and evaluated all information furnished by the Region and has made all inquiries necessary such that Vendor is fully aware of the Region's business requirements and intended uses of system, as set forth or referenced in the RFP and any Addenda, Amendments or Request for Best and Final Offers, as well as in discussions during the Pre-proposal Conference.				
706	• The Vendor shall warrant that the system satisfies the foregoing requirements in all material respects and will be fit for such intended uses.				███
707	• The Vendor shall warrant that the design, materials, construction, software and workmanship of the equipment shall reflect the intended use of the equipment as a component of the overall transit management system in the Region environment.				
708	• The Vendor shall warrant that equipment and software, including the initial supply of spare components, (1) are free from defects in design, material and workmanship, and shall remain in good working order; and (2) function properly and in conformity with this Contract.				███
709	• The Vendor shall warrant that the documentation provided shall completely and accurately reflect the operation and maintenance of the equipment and software, and provide the Region with all the information necessary to maintain the system.				███
710	• If there is a change in the production configuration of any equipment or software being installed prior to Final System Acceptance, the Region may require that all previously installed equipment and software be upgraded to match the updated configuration.				
711	• The Vendor shall warrant compliance with all applicable laws and regulations relating to the project.				

712	• The Vendor shall warrant that its employees, agents and subcontractors assigned to perform services under this contract shall have the proper skill, training and background to perform in a competent and professional manner and that all work will be so performed.			
713	• The Vendor shall warrant that all guarantees and warranties are fully enforceable by the Region acting in its own name.			
714	• During the first full year warranty period after acceptance of system (provided at no cost to the Region), the Vendor shall, at no cost to the Region, furnish such materials, labor, equipment, software, documentation, services and incidentals as are necessary to maintain the system in accordance with the warranty, including costs for the retesting of replaced components.			
715	• The Vendor shall provide any software upgrades, fixes, updates, or version changes at no cost to the Region during the warranty period.			
716	• In its agreements with subcontractors, suppliers and vendors, the Vendor shall require that such parties (1) consent to the assignment of such warranties and representations to the Region; (2) agree that such warranties and representations shall be enforceable by the Region in its own name; and (3) furnish documentation on the applicable warranties to the Region.			
717	• The warranty period shall run concurrently for all system components, from their date of installation through to two years from the date of Final System Acceptance. The Vendor shall offer an option to extend the warranty period for additional one, two or three years. The Vendor shall document any differences in the warranty terms for these option years in their proposal.			
718	• The Vendor shall provide a single point of contact for all warranty administration during the warranty period.			
719	• The Proposer shall describe its proposed solution for developing an effective product support.			
720	• The Proposer shall describe its helpdesk availability during normal and extended business hours, and whether SORTA/regional agencies will have access to dedicated Proposer support resources when the Proposer's helpdesk is closed, and software or data-related incidents occur.			
721	• The Proposer shall describe how SORTA/regional agencies will obtain direct access to the Proposer's standard resources when needed.			
722	• The Proposer shall describe its targeted response times and include a description of actual response times. The Proposer shall describe its metrics for tracking response times and problem-resolution completion rates.			
723	• The Proposer shall describe decision criteria used to escalate incidents from support tier to a higher tier.			
724				
725	**4.13.2. Repair or Replacement of Faulty Components**			

726	• During the warranty period, the Vendor shall repair or replace any faulty components replaced from the spares inventory by the Region, with the cost included in the warranty price. The Region will ship each faulty component to the Vendor, who shall return a new or repaired component within one week of originally receiving it. Thus, the Region supply of spare components shall not diminish during the warranty period.			
727	• If the Vendor determines that a returned component is not faulty, the Region must receive the original component back in working order within two days of the Vendor originally receiving the returned component.			
728	• All components received back at the Region from the Vendor will be tested in accordance with the original ATPP, and returned to the Vendor if faulty.			
729	• The Vendor shall pay all shipping charges and any duties associated with the repair or replacement of faulty units.			
730	• Returned or replaced spare components shall be packaged, organized and labeled in the same manner as the original supply of spare components.			
731				
732	**4.13.3. System-wide Replacement**			
733	• If at least 25% of a given component requires repair or replacement within the two-year warranty period, the component shall be deemed to warrant system-wide replacement. System-wide replacement shall require the Vendor to replace all units of the suspect component throughout the system, whether or not they have exhibited any fault.			
734	• Even if the system-wide replacement activity extends beyond the end of the two-year warranty period, the Vendor shall be obligated to complete it if the need was documented before the end of the warranty period.			
735				
736	**4.14. PROJECT MANAGEMENT**			
737	**4.14.1. Implementation Plan**			
738	• The Vendor shall prepare an Implementation Plan, including a detailed implementation work plan, schedule, progress payment milestones and assigned staff. The initial draft of the Implementation Plan shall be provided to Region within one week from Notice To Proceed (NTP).			
739	• The Vendor shall participate in an Implementation Kickoff meeting as early as two weeks from NTP, at which the Vendor shall be prepared to present and discuss the Implementation Plan, and receive comments from the Region.			
740	• The revised Implementation Plan, addressing comments from the Implementation Kickoff meeting shall be provided to the Region within two weeks from Kickoff meeting. The Implementation Plan shall be revised and resubmitted to the Region on an on-going basis, at minimum every two weeks, to reflect any changes.			
741				
742	**4.14.2. Bi-Weekly Conference Calls**			
743	• The Vendor shall participate in bi-weekly conference calls with the Region. Conference call facilities will be arranged and paid for by the Vendor.			

744	• In each conference call, the Vendor shall be prepared to present and discuss current progress against the Implementation Plan and Action Items.				
745					
746	**4.14.3. Action Items List**				
747	• The Vendor shall maintain an Action Item List (AIL), with each item numbered and indicating the date generated, item description, assigned person, date resolved and ongoing notes on resolution.				
748	• The AIL shall be revised and resubmitted to the Region on an on-going basis, at minimum bi-weekly following the bi-weekly conference call, to reflect any changes.				
749					
750	**4.14.4. Progress Reports**				
751	• The Vendor shall submit a Progress Report monthly to the Region. Each Progress Report shall summarize the current status of the entire implementation, relative to the Implementation Plan and the AIL.				
752					
753	**4.14.5. Invoicing**				
754	• The Vendor shall only submit invoices against the completion of agreed-to progress payment milestones. Each invoice shall be accompanied by a Progress Report updated as of the date of the invoice; the current Implementation Plan and the current AIL.				