CITY OF KNOXVILLE

REQUEST FOR PROPOSALS

Transit Integrated Advanced Technology

Proposals to be Received by 11:00:00 a.m., Eastern Time March 25, 2020

> Submit Proposals to: City of Knoxville Office of the Purchasing Division City/County Building Room 667-674 400 Main Street Knoxville, Tennessee 37902

CITY OF KNOXVILLE Request for Proposals Transit Integrated Advanced Technology

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City of Knoxville Request for Proposals Transit Integrated Advanced Technology

I. Statement of Intent

The City of Knoxville is requesting proposals from responsible firms or teams to provide an integrated intelligent transportation system (ITS) solution providing for replacement/updated CAD/AVL with expanded capabilities, and integration of existing systems to the maximum extent possible into one complete, comprehensive ITS system under a <u>single prime contractor</u> for the Knoxville Area Transit (KAT). The selected proposer will be awarded a firm fixed price five-year contract with guaranteed minimum base quantity procured within the first year. All other capabilities proposed shall be available as options throughout the contract term as funding becomes available. Future year pricing adjustments may be requested based upon the pricing index detailed below.

Note this procurement is funded in part by grants to the City of Knoxville from the Federal Transit Administration. As such, federal requirement contained within this document apply.

Proposals shall include project management, travel, shipping costs, installation and acceptance testing.

II. RFP Time Line

Availability of RFPJanuary 29, 2	020
Deadline for questions to be submitted in writing to the Purchasing DivisionMarch 6, 2	.020
Proposals Due Date March 25, 2	020

This timetable is for the information of submitting entities. These dates are subject to change. However, in no event shall the deadline for submission of the proposals be changed except by written modification from the City of Knoxville Purchasing Division.

III. Background

3.1 Knoxville Area Transit (KAT) is the City of Knoxville's public transportation system operating buses, trolleys and para-transit service within the city. Seventy-six fixed route vehicles operate on twenty-three fixed routes carrying over three million passengers each year. KAT's demand response fleet operates parallel to fixed route schedules carrying over sixty-thousand passengers annually with a fleet of twenty-three para-transit vans. Major infrastructure assets include Knoxville Station Transit Center, W.T. Crutcher Maintenance and Operations Facility, approximately fifteen-hundred bus stops, and four "super-stops." In calendar year 2021, KAT will be introducing ZEB electric buses to fixed route service. Additionally, funding is identified

and plans are in beginning stages for an Accelerated Bus Corridor (ABC) route with integrated Traffic Signal Priority (TSB) technology.

3.2 Knoxville Station Transit Center contains administrative offices, customer service desk, centralized electronic signage and bus bay electronic signage providing Automatic Vehicle Location (AVL) predictions for fixed route service. The W.T. Crutcher Maintenance and Operations Facility contains operations staff, the central dispatch operation, transit support office for telephone information and para-transit service scheduling, and the maintenance department. Additionally, an adjacent property contains the bus lot and service building with AVL and the Apollo surveillance camera connected to the city network via Wireless Access points installed throughout the yard and in the garage. KAT's current AVL system was provided by Digital Recorders now owned and serviced by Clever Devices. All network connectivity is supported and administered by the City of Knoxville Information Systems.

3.3 Super-stops are characterized by enhanced passenger amenities where more than one fixed route interline. Current super-stops are located in North Knoxville, East Knoxville, West Knoxville, and the downtown trolley super-stop. A future super-stop for South Knoxville is in the early planning phase. The future 6.5 mile enhanced route along the Broadway corridor is anticipated to have twelve bus stops with enhanced amenities and passenger information technology.

3.4 **Transit System Existing ITS Systems for Integration.** The following ITS system components are currently utilized by Knoxville Area Transit. Proposers shall consider integration of these system components in developing a fully integrated intelligent transportation system solution.

3.4.1 Apollo video surveillance system.

- RoadRunner HD mobile recorder, high resolution HD 1920 X 1080 cameras installed in all fixed route vehicles, trolleys and para-transit vans.
- Built-in accelerometer to detect hard braking and collisions.
- Automatic downloading through garage WLAN system.
- Procured in 2017 from Apollo Video Technology, Contact: Harry White, <u>harry.white@apollovideo.com</u>, 352.428.1826.
- System capabilities for future expansion include:
 - Apollo is currently developing a passenger counting over video capability.
 - Apollo has capabilities to send video system maintenance fault code to an AVL system.
 - Capability of receiving AVL driver ID login to provide driver ID and route ID with downloaded video clips.
- **Integration expectation** Utilize data from accelerometer hard braking and collision events integrating into reports, automatically flagging video footage and live look-in integration with AVL driver emergency button, integration of passenger counting over video to consolidate data with automatic passenger counter, driver and route ID's from AVL login used to identify downloaded video clips.

- 3.4.2 Digi WR44R ruggedized router.
 - Provided by Clever Devices as an upgrade to the aged DR600 based AVL technology.
 - Procured in 2016, Contact: Chris Cates, <u>ccates@cleverdevices.com</u>, 919.622.8505.
 - Installed in all fixed route vehicles and trolleys; not demand response vehicles.
 - Currently the WR44R enables communications for Wi-Fi to bus riders, cellular to AVL, and wireless communications required to upload/download files and video.
 - Integration expectation Use of this router with new vehicle installed AVL system, WIFI, and integration with other vehicle-on-board systems.

3.4.3 GFI Genfare Odyssey electronic validating farebox with TRiM (magnetic ticket reader/issuer machine).

- Proposers must provide options to replace this system. KAT expects this option will be exercised in a later year within the contract term provided funding is available.
- The system contains a recently replaced central onsite server with SPX Genfare Data System 7, Version 2.05.10.34.
- Procured in 2009 from GFI Genfare, Contact: Roy Purnell, <u>roy.purnell@spx.com</u>, 336.273.0454.
- One self-contained, operational Odyssey farebox currently resides within KAT's drivers training department.
- **Integration expectation** Though KAT hopes to replace this system at a later date and as an option to the awarded contract, proposers should address integration options of the current GFI system with other proposed fare collection solutions such as mobile ticketing, consolidated ridership and financial transaction reporting, etc.
- 3.4.4 GFI Genfare Ticket Vending Machine (TVM)
 - Vendstar III Ticket Vending Machine located on the Transit Center bus platform.
 - TVM procured in 2012 from GFI Genfare, Contact: Roy Purnell, roy.purnell@spx.com, 336.273.0454.
 - The TVM internal CPU is connected through Ethernet to the City network.
 - Ethernet connection enables KAT to obtain limited reports utilizing a GFI provided application (VIP LITE). Reports are limited to individual transactions and total transactions within a defined period.
 - VIP LITE only resides on one City Network workstation in KAT's maintenance department.
 - **Integration expectation** Proposers should address integration options with other proposed fare collection options, such as consolidated financial transaction reporting.
- 3.4.5 Ecolane paratransit management system.
 - Paratransit management system procured in 2016 from Ecolane, Contact: Susan Starwalt, <u>susan.starwalt@ecolane.com</u>, 217.962.0415.

- Cloud based system enabling KAT to schedule para-transit service with registered clients. Vehicle installed Vehicle Logic Units (VLU) consist of MicroSoft Tablets and do not interface with KAT's fixed route CAD/AVL system.
- The system enables KAT to schedule client transportation, automatically assign paratransit work to van operators and make necessary last minute changes to van operator assignments. The system provides mileage reports, passenger reports, and service utilization reports.
- Ecolane also provides an account based payment system for the para-transit service. Currently clients make account pre-payments at KAT's Transit Center customer service desk in order to utilize this option.
- Transit support staff key transactions to accounts when clients schedule para-transit service.
- The account based payment system also provides periodic revenue reports and account balance reports.
- Para-transit vans contain automated tablets that interface with Ecolane's cloud based server through a built in cellular modem. The tablets enable drivers to receive daily and updated work manifests, GPS map directions, and the ability to send and receive text messages from transit support staff.
- **Integration expectation** Integrate with single-point log in for the operator. Ridership and fare collection reports should also be integrated within the proposal's reporting system. Also integrate the account based payment system within the proposed mobile app portion of the proposer's solution.
- 3.4.6 Automated fuel management system.
 - Fleetwatch® fuel and fluids management system procured in 2019 from S & A Systems Inc, Contact: Don Srygley, <u>don.srygley@fleetwatch.com</u>, 972.722.1009 ext. 24.
 - Browser based integrated bus fuel and fluids management system interfaced to a SQL server housed residing on the City Network. This is an automated fuel management system that authorizes and tracks fluids dispensed into transit system vehicles.
 - The system is integrated to KAT's Veeder-Root 350 underground storage tank monitoring system to consolidate tank product quantities and provide inventory, leak test and alarm reports.
 - The system also performs automated RF downloads of vehicle IDs, mileage and vehicle component maintenance codes available through J1939 and OBD-II.
 - The fuel management system uploads vehicle ID, fluids dispensed and mileage data into TransitFleet maintenance management software.
 - The system provides vehicle health maintenance reports from data collected from J1939 and OBD-II.
 - **Integration expectation** Integrate to obtain maintenance data required for incident and driver safety/training profile reports and other proposed solution database reporting as needed.

3.4.7 Destination signs. All buses, trolleys and fixed route vans are equipped with one of the following destination signs, all LED amber.

- Luminator Gen IV
- Luminator Commuter
- Hanover
- **Integration expectation** Integrate with single-point log in for the operator; destination sign should automatically update consistent with route direction and interlining; provide the capability to upload destination sign data changes through the WLAN system.
- 3.4.8 KAT website <u>www.katbus.com</u>.
 - Designed by CivicPlus, Contact: Anthony Vidal, <u>vidal@civicplus.com</u>, 785.323.4708.
 - **Integration expectation** If including the existing KAT website in the solution, then integrate real time passenger information discussed in 5.6.17 below
- 3.4.9 Clever Devices XML based Passenger App (KATbus Tracker)
 - Procured from Clever Devices in 2018.
 - Contact: Chris Cates, <u>ccates@cleverdevices.com</u>, 516.433.6100.
 - App is fed existing AVL server XML data.
 - App is supported on both DROID and IoS devices.
 - This system may either be integrated into the proposed solution or completely replaced.
- 3.4.10 FM Radio Communications System
 - Procured from B.K. Technologies in early 2019.
 - Contact: Kent Bickel, <u>kbickel@bktechnologies.com</u>, 615.306.0534.
 - P25 CAP compliant
 - Currently operating Phase I FDMA, capable of operating on Phase II TDMA. Knox County Communications System will change to Phase II TDMA at some point in the future.
 - 800 mhz
 - Each radio is capable of being controlled via an Ethernet interface on the radio. B.K. Technologies will provide proposers interface protocol information.
 - **Integration Expectation** Integration with the proposed AVL system to provide a closed-loop communication system controlled by KAT's central dispatch.
- 3.4.11 TransitFleet Maintenance Management Software
 - Procured from StarTran Software in 2012.
 - Contact: Howard Ostroff, <u>hostroff@startransoftware.com</u>, 781.801.9696.

- Client server based system with access from City network workstations.
- This system manages maintenance department repair work orders, preventative maintenance scheduling, parts inventory management, leased tire management. This system also contains a purchasing module separate from the City Finance's purchasing system.
- **Integration Expectation** The ability to capture work requests generated by an automated pre-trip system discussed in 5.6.2 below and the ability to auto-populate work orders for approved work requests.
- 3.4.12 Unicorn HRO Payroll Management System
 - Procured in early 2019, implemented October 2019
 - Provides payroll timekeeping and attendance, employee information database, payroll deductions, IRS required deductions and filings, etc.
 - Browser based access to the Unicorn system.
 - https://unicornhro.com/solutions/icon/human-resources/
 - Contact: Cal McGrath, 206.794.1912, CMcGrath@UnicornHRO.com .
 - **Integration Expectation** Data integration enabling accurate time keeping for vehicle operators.

3.4.13 New Flyer Connect 360

- Provided with New Flyer Excelsior battery electric buses. KAT should take delivery of twelve Xcelsior CHARGE battery-electric buses late calendar year 2020.
- New Flyer Connect 360 is New Flyer's performance analytics dashboard for their Xcelsior CHARGE battery-electric buses providing performance data and smart analytic reporting for managing battery-electric transit buses.
- **Integration Expectation** Integrate with New Flyer's on-board system to provide driver name through the single-point log in function.

IV. General Conditions

4.1 The following data is intended to form the basis for submission of proposals to provide a Transit Integrated Advanced Technology system for the City of Knoxville.

4.2 This material contains general conditions for the procurement process, the scope of service requested, contract requirements, instructions for submissions of proposals, and submission forms that must be included in the proposal. The RFP should be read in its entirety before preparing the proposal.

4.3 All materials submitted pursuant to this RFP shall become the property of the City of Knoxville.

4.4 To the extent permitted by law, all documents pertaining to this Request for Proposals shall be kept confidential until the proposal evaluation is complete and a recommendation submitted to City Council for review. No information about any submission of proposals shall

be released until the process is complete, except to the members of the Evaluation Committee and other appropriate City staff. All information provided shall be considered by the Evaluation Committee in making a recommendation to enter into an agreement with the selected consultant.

4.5 Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the RFP shall be made **in writing and be in the hands of the Assistant Purchasing Agent by the close of the business day on March 6, 2020**. Questions can be submitted by letter, fax (865-215-2277), or email to <u>powens@knoxvilletn.gov</u>. The City of Knoxville is not responsible for oral interpretations given by any City employee, representative, or others. The issuance of written addenda is the only official method whereby interpretation, clarification, or additional information can be given. If any addenda are issued to this Request for Proposals, the Purchasing Division will post them to the City's website at <u>www.knoxvilletn.gov/bids</u>. Submitting organizations are strongly encouraged to view this website often to see if addenda are posted. Failure of any proposer to receive such addendum or interpretation shall not relieve such Proposer from any obligation under his proposal as submitted. All addenda so issued shall become part of the Contract Documents.

4.6 The City of Knoxville reserves the right to (a) accept or reject any and/or all submissions of proposals; (b) to waive irregularities, informalities, and technicalities; and (c) to accept any alternative submission of proposals presented which, in its opinion, would best serve the interests of the City. The City shall be the sole judge of the proposals, and the resulting negotiated agreement that is in its best interest, and its decision shall be final. The City also reserves the right to make such investigation as it deems necessary to determine the ability of any submitting entity to perform the work or service requested. Information the City deems necessary to make this determination shall be provided by the submitting entity. Such information may include, but is not limited to, current financial statements by an independent CPA, verification of availability of equipment and personnel, and past performance records.

4.7 Included in the Contract Documents is an affidavit that the undersigned has not entered into any collusion with any person in respect to this qualification. The qualifier is required to submit this affidavit with the submission. Also included is the Diversity Business Program contracting packet. Submissions must indicate on the enclosed form whether or not the proposer/qualifier intends to use subcontractors and/or suppliers from one of the defined groups. Proposers/Qualifiers are advised that the City tracks use of such use, but it does not influence or affect evaluation or award.

4.8 Subsequent to the Evaluation Committee's review and the Mayor's recommendation of a firm(s), Knoxville City Council approval may be required before the final contract may be executed.

4.9 All expenses for making a submission of proposal shall be borne by the submitting entity.

4.10 Any submission of proposals may be withdrawn up until the date and time for opening of the submissions. Any submission not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of 120 days to the City of Knoxville for the services set forth in the Request for Proposals until one or more of the submissions have been duly accepted

by the City.

4.11 Prior to submitting their proposals, proposers are to be registered with the Purchasing Division through the City of Knoxville's online Vendor Registration system. Instructions for registering on-line are available at <u>www.knoxvilletn.gov/purchasing</u>. **Proposals from unregistered proposers may be rejected.**

4.12 **NO CONTACT POLICY:** After the posting of this solicitation to the Purchasing Division's website, any contact initiated by any proposer with any City of Knoxville representative concerning this proposal is strictly prohibited, unless such contact is made with the Purchasing Division representative listed herein or with said representative's authorization. Any unauthorized contact may cause the disqualification of the proposer from this procurement transaction. Proposals must include a notarized No Contact/No Advocacy Affidavit (to be found in the "Submission Forms" section of this document).

4.13 **INCLEMENT WEATHER:** During periods of inclement weather, the Purchasing Division will enact the following procedures with regard to solicitations and weather delays:

- If City offices are closed due to inclement weather on the date that bids/proposals/qualifications/letters of interest are due into the Purchasing Office, all solicitations due that same day will be moved to the next operational business day.
- The City of Knoxville shall not be liable for any commercial carrier's decision regarding deliveries during inclement weather.

V. Scope of Service

5.1 **Overview**. These specifications define the functional and performance requirements for deployment of an integrated transit technology system for Knoxville Area Transit. Proposed integrated systems shall address the following component.

- Automated pre-trip system
- Automatic Vehicle Location and Computer Aided Dispatch (CAD/AVL)
- Centralized AVL database control system (facilitates local updating for route and schedule changes into the AVL system)
- Passenger Wi-Fi
- Single point vehicle log-in (AVL, AVA, Farebox, Destination Sign, etc.)
- Automatic voice annunciation (AVA)
- Public address system (to supplement AVA; note that KAT buses do not have standalone P.A. system hardware)
- Automatic passenger counter (APC)
- Automatic bicycle counter (ABC)
- Cummins Telematics connectivity
- Automated Vehicle Monitoring option
- On-board infotainment system
- Video surveillance system integration
- Closed loop FM communications

- Fare collection solution
- Pedestrian warning system
- Real-time passenger information system (mobile app, SMS messaging and web site solution)
- Transit center bus bay real-time electronic signage
- Transit center real-time informational electronic displays
- Bus stop electronic signage (super stops and select bus stops)
- Future integration with Traffic Signal Prioritization
- Fixed route "run-cut" scheduling system
- Passenger complaint/commendation tracking and reporting system
- Yard management system
- Driver training vehicle simulation system
- Garage WLAN and City Network Infrastructure
- Robust central database reporting
 - Fare revenue reporting
 - Ridership reporting
 - Operational reporting
 - Incident reporting
 - Operator driving training needs report
 - Open data exports and reporting

5.2 The proposer should determine all necessary software, hardware, integration with existing and proposed systems, and services needed to maximize their fulfillment of the technical specifications. All components used to provide the capabilities claimed in the responses to these requirements should be listed along with their cost in the pricing section of the RFP. Costs associated for integration with existing systems and proposed sub-contractors must be included. All responses to system requirements below shall be based on the product versions currently available as of the proposal response date. Exceptions to current versions should only involve customizations needed to meet technical specification requirements.

Proposers must fully understand the City considers this document and the proposer responses to all the requirements to become a part of the legally binding agreement of the capabilities of the software and hardware package whose complete listing is specified on the pricing sheets of their proposal.

To assure misrepresentation of the proposer's package does not occur, proposers should seek clarification of any requirement they do not fully understand as outlined in Section V – Scope of Work. Misunderstandings resulting in an improper response to this RFP will not be considered a valid reason to fail to supply **all** features indicated.

5.3 The awarded proposer is responsible for all equipment installation and integration.

5.4 Please respond to every requirement listed in the "checklist" format below using the following coding in the response.

- **Y** = **Yes** This is a standard feature provided by the integrated system; either from the proposer or a partnered sub-contractor. This feature requires NO additional equipment, routines and/or programs, user programming, use of a report writer, or query facility.
- **N** = **No** This is not a standard feature provided by the integrated system; either from the proposer or a partnered sub-contractor. This feature cannot be obtained through any means available to the proposer. We are unable or unwilling to modify the product (and still maintain support for the product, future upgrades, etc.) to provide this feature.
- **A** = **Available** This is not a standard feature provided by the integrated system. However, the proposer is willing to pursue customizing to include this feature. If customization is done, the proposer will continue to support the customized system including supplying updates of related software maintaining the custom features. Items marked "Available" should include an estimate of the effort required to include in the system. The estimate should include a numeric estimate of the number of labor-hours required to accomplish the change. Proposers shall supplement the effort estimate with a cost estimate if there is a charge for it in addition to the fixed price submitted by the proposer in their pricing. The "Comments" column can be utilized to show whether the package is amended by query, report writer, customized code, etc. to meet the requirements.

5.5 **Base items and option items**. Intended base contract items are listed below and are intended to be included within the initial purchase order, subject to availability of funds and contract negotiation. All other items shall be offered as "options" for purchase throughout the contract term as funding becomes available. For clarity, base items are:

- AVL/CAD
- Automatic Voice Annunciation
- Public Address System
- Automatic Passenger Counters
- Cummins Telematics Connectivity
- Passenger WIFI
- Transit Center Bus Bay Real-Time Electronic Signage
- Transit Center Real-Time Informational Electronic Displays

5.6 System requirements.

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
On-Board Systems	
5.6.1. Vehicle Logic Unit	
Any proposed vehicle logic units (VLU) should serve as the computing	
platform for all vehicle onboard ITS functionality. It should integrate with all	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
vehicle Intelligent Transportation Systems, those installed as proposed and	•
existing systems.	
Comments:	
The VLU and all proposed equipment installed on transit vehicles must be	
ruggedized and specifically designed to operate long term in a harsh transit bus	
environment, e.g., extreme ranges in temperature and humidity, bus vibrations,	
shakes and jars, etc.	
Comments:	
The VLU shall include an embedded cellular modem or external modem	
compatible with the City of Knoxville selected cellular service provider.	
Comments:	
The modems shall have the ability to utilize 4G wireless data connections,	
higher capacity data connections when available, and automatically switchover	
to lower bandwidth networks (3G, 2.5G, 2G, etc.) when higher bandwidths are	
not available.	
Comments:	
The VLU should include an embedded or external GPS receiver.	
Comments:	
The VLU should control audio to interior and external speakers.	
Comments:	
The VLU should control audio to interior and external speakers.	
Comments:	
The solution shall provide a discrete driver's button to alert Dispatch of an	
emergency.	
Comments:	
The VLU shall utilize non-volatile storage so a power supply is not required to	
retain any performance data and not malfunction or corrupt data due to voltage	
fluctuations or power interruptions such as shutting the bus main battery switch	
to off. Comments:	
The VLU shall automatically turn on when the vehicle is powered up and shall	
shut down at a KAT configurable time after the vehicle is shut down.	
Comments:	
5.6.2. Automated pre-trip system	
The solution shall propose a portable device for each revenue vehicle enabling	
an operator to easily and quickly perform DOT vehicle pre-trip inspections.	
KAT's pre-trip checklist is attached. The system must identify the operator	
and verify an actual "walk-around" was performed and systems were actually	
checked for proper function. The system must provide reports to management	
for pre-trip compliance and defect work requests to maintenance managers.	L
Comments:	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
Management approved defect work requests should be designed to automatically upload into TransitFleet maintenance management system and	
auto-populate data fields on a work order.	
Comments:	
5.6.3 Single point log-in and Operator's Interface Device	
The proposed system shall enable a bus operator to simultaneously log-in to the	
AVL/GPS, fare collection system, Hannover/Luminator destination sign,	
Automatic Passenger Counter (APC), Automatic Bicycle Counter (ABC), New	
Flyer Connect 360, and other installed integrated transit technology systems.	
This system shall also enable the operator to interface with the AVL system for	
assigned vehicle runs.	
Comments:	
Maintenance personnel shall be able to log-on to the system through the	
operator's interface device to access on-board AVL system diagnostic	
functionality and perform preventative maintenance tasks with the use of	
special maintenance logon ID and password.	
Comments:	
The system shall allow an operator to login to only one vehicle at a time.	
Comments:	
The operator's interface device shall provide the vehicle operator assigned	
route turn-by-turn directions on a Google or Garmin style map and an easily	
recognizable means for the operator to monitor if they are running early, late or	
on time based on their run schedule.	
Comments:	
The operator's interface device shall provide a quick and easy means, such as	
the pressing of one button, of reporting that a wheelchair passenger has been	
loaded and has refused use of on-board wheelchair passenger restraint device.	
Use of this feature shall provide time-stamped reports to management.	
5.6.4. Automatic Voice Annunciation (AVA)	
An automatic voice annunciation (AVA) system shall be proposed that meets	
or exceeds all American with Disabilities Act (ADA) requirements found at 49	
CFR 37.167 and 38.35. Comments:	
Comments.	
The AVA system shall automatically provide audible and visual	
announcements to the vehicle interior. The proposed system shall include new	
vehicle mounted speakers to replace those with the old system. Seven (7)	
speakers in buses, five (5) in cutaways. Comments:	
The AVA system, at a minimum, shall make the following audible and visual	
announcements to the interior of the vehicle:	
Transfer points with other fixed routes	
 Major intersections and destination points (chosen by KAT staff) 	
• Wajor intersections and destination points (chosen by KAT stall)	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
• Intervals along a route sufficient to permit individuals with visual	
impairments or other disabilities to be oriented to their location	
• Super-stop arrival	
• Stop request upon activation of the vehicle stop request system, and	
shall automatically reset upon the passenger doors opening	
Custom public information announcements created by KAT staff at	
specified stops, specified locations that are not stops, on demand by	
the operator, as programmed by locations, and any combination of	
these	
• Date and time (visual display only, configurable to 12-hour and 24-	
hour format)	
• The Contractor must provide system updates to meet any future	
announcements required by the ADA (within the capability of their	
system).	
Comments:	
The AVA system shall make route and destination audible announcements to	
the vehicle exterior when the passenger doors open.	
Comments:	
The AVA solution shall provide software enabling KAT staff to create ADA	
route announcements, make changes to route announcements and develop	
custom public information announcements. The software shall also enable	
KAT staff to upload announcements, changes and custom announcements	
through the garage WLAN system and, alternatively, via USB flash drive.	
Comments:	
The solution must provide for all AVA system files and version updates to be	
uploaded in vehicle equipment through the garage WLAN system.	
Alternatively, KAT mechanics shall be able to perform data uploads by directly	
connecting a USB flash drive to the on-board VLU. Uploaded schedule/run	
files shall have an effective date.	
Comments:	
The solution shall provide a means to push/upload immediate, short duration,	
custom announcements on the bus and the real-time passenger information	
system (snow route, route detours, etc.). These files shall have a configurable	
effective and ending date.	
Comments:	
The AVA system shall include automatic volume control for both interior and	
exterior announcements. The system shall monitor ambient noise and	
dynamically adjust audio volume to an appropriate level determined by KAT.	
KAT maintenance personnel and supervisors shall be able to easily adjust	
volume controls on independent vehicles; operators shall not be able to adjust	
AVA system volumes.	
Comments:	
The AVA system shall support English and Spanish languages. Additionally,	
the system shall be configurable in the central software system to play both or	
either languages.	
Comments:	

TEGRATED SYSTEM REQUIREMENTS	Vendor Response
The operator shall easily enable an AVA repeat of the next stop announcement	
for both vehicle internal and external announcements.	
Comments:	
The proposer shall describe how next stop audio and visual announcements are	
triggered and how KAT shall have the in-house capability to adjust trigger	
locations.	
Comments:	
In the event a vehicle is operating off-route (an unauthorized route), the AVA	
system shall automatically disable. Once the vehicle returns to the route, the	
system shall automatically resume announcements without operator interaction.	
Comments:	
Proposals must describe how the AVA system adjusts and continues AVA	
announcements when a vehicle is on an authorized route detour.	
Comments:	
The proposed AVA system should have the capability to playback audio and	
display any public announcements using text to speech (TTS) sent by a	
dispatcher.	
Comments:	
Comments.	
5.6.5. Public Address System (PA)	
The proposal shall include a public-address capability to enable the operator to	
make manual audible announcements to the interior, exterior, or both by	
pressing a push-to-talk (PTT) button on the microphone or bus floor switch.	
Comments:	
The AVA system shall support configuration priority of PA system or AVA	
announcements when both are simultaneously active.	
Comments:	
The vehicle operator shall be able to adjust the PA volume.	
Comments:	
5.6.6. Automatic Passenger Counter (APC) The Contractor shall provide an APC solution that accurately counts	
passengers, both ambulatory and wheelchair passengers, boarding and alighting	
through all doors in fixed route vehicles.	
Comments:	
The APC shall be capable of accurately counting successive passengers	
walking as close together as is practical, both for one behind the other or side	
by side.	
Comments:	
The ADC shall distinguish between and provide reports on wheelsheir bound	
The APC shall distinguish between and provide reports on wheelchair bound	
The APC shall distinguish between and provide reports on wheelchair bound and ambulatory passengers. Comments:	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The APC shall not count an individual who reaches into the doorway passage	
(such as a supervisor) and shall not miscount a passenger who is swinging their	
arms while passing through the doorway.	
Comments:	
The APC shall not separately count objects carried by passengers such as	
shopping bags.	
Comments:	
The APC solution shall address integration of Apollo Video passenger	
counting over video capability to verify/supplement APC passenger counts.	
Comments:	
5.6.7. Automatic Bicycle Counter (ABC)	
The Contractor shall provide an automatic bicycle counter (ABC) solution.	
Comments:	
5.6.8. Automatic Vehicle Monitoring	
The proposed solution shall provide for an automatic vehicle monitoring option	
that provides reports on vehicle maintenance health and real-time alerts for select maintenance codes.	
Comments:	
Comments.	
The proposed solution shall provide the option to integrate with the existing	
FleetWatch fuel management system to obtain vehicle maintenance codes	
required for data integration with provided systems mentioned within these	
specifications, such as obtaining data for incident reports and operator driving	
behavior reports.	
Comments:	
5.6.9. Cummins Telematics Connectivity	
The proposed technology solution MUST provide for Cummins bus engine	
direct link to Cummins Telematics. More information on Cummins Telematics	
is available from Todd Mysak, todd.a.mysak@cummins.com, 812-350-9142.	
Comments:	
5.6.10. Vehicle Header Sign (Destination Sign) Integration	
The proposed solution should provide a means to integrate destination sign	
codes with the AVL system. Code changes associated with routes shall	
automatically upload to fixed route vehicles through the garage WLAN system.	
Comments:	
5.6.11. On-Board Infotainment System	
The proposed technology solution shall include an infotainment system for all	
fixed route heavy-duty buses.	
Comments:	
The proposed system shall provide two 24" LCD flat screen displays mounted	
in KAT approved locations within each heavy-duty bus.	
Comments:	
Comments.	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The infotainment system shall display current route progression preferably on a digital map, KAT generated public service slide presentation announcements, and information videos produced by KAT or provided to KAT by third parties	
for viewing by riders. Comments:	
The infotainment system shall also have the capability of integrating with the existing Apollo Roadrunner surveillance system to periodically display current internal camera views. Comments:	
The infotainment system shall integrate video presentation audio through the bus internal speaker system. AVA announcements shall override infotainment audio. Comments:	
The solution shall provide a central software package enabling KAT staff to develop and edit infotainment viewing content. The software package shall also enable uploading of infotainment files through the garage WLAN infrastructure and, alternatively, via USP flash drive. Comments:	
5.6.12. Passenger WIFI	
The proposed solution shall include passenger WIFI for all fixed route vehicles and the option to expand WIFI to the demand response fleet. Note that only fixed route vehicles currently contain Digi routers.	
Comments:	
Proposals shall also offer Internet use agreement splash page and web site filtering to prevent access to inappropriate content through a public WIFI system. Comments:	
5.6.13. Fare Collection Solution	
Proposals shall include a fare collection and reporting solution with the full range of media options. The proposed solution shall include fare collection on both fixed route and demand response vehicles. Examples include electronic validating farebox for U.S. coins and bills, account based mobile ticketing, debit/credit, near field communications, account based proximity card, etc. To the maximum extent practical, all media other than U.S. cash should be account based, meaning that funds for bus fares shall reside in an account rather than on the media itself. Proposals shall NOT include bus installed magnetic card encoders and readers such as, for example, the Genfare TRiM® ticket processing unit.	
Comments:	
The fare collection solution must provide that all fare media, whether involving cash, stored value proximity/RFI cards, near field communications, mobile device or other media is validated through vehicle installed hardware and software and does not require validation by the vehicle operator.	
Comments:	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The fare solution shall include remote kiosk options for purchase of fare media at the transit center and select bus stop locations. Kiosk hardware must be designed to include security features that prevents unauthorized removal or access to internal components and prevents installation of card-skimming devices. A web based application must be included to capture and integrate financial data and kiosk maintenance health monitoring. The solution shall also provide secure connectivity options for credit/debit card transactions and allow software updates and system troubleshooting by the contractor. Updates required to maintain compliance with debit/credit card encryption shall be the responsibility of the contractor for the design life of each unit. Design life should be at least twelve (12) years. Comments: Debit/Credit card transactions must include current encryption and security technology to prevent compromise of customers' debit/credit card information.	
The proposed solution must also be designed to enable quick transactions and boarding of the bus without delays from electronically processing financial	
transactions.	
Comments:	
The fare collection solution shall include a fare capping option to provide riders the best value in using the transit system.	
Comments:	
Proposals must provide comprehensive means of capturing ridership and	
providing database reporting for ridership and revenue on consolidated reports. Comments:	
Comments.	
5.6.14. Voice Radio Communication Integration	
The proposed solution shall provide a " closed loop " communication system by integrating the proposed CAD/AVL system with KAT's existing FM radio communications equipment. The proposed system should enable a dispatcher to control who can listen in on radio transmissions. Additionally, the system should enable dispatch to covertly listen in to bus/vehicle conversations when the AVL emergency alarm has been activated. See paragraph 3.4.10 for existing radio equipment information. Comments:	
5615 Dedectrion Warning System	
5.6.15. Pedestrian Warning System The proposal shall provide an automatic pedestrian warning system option to	
warn pedestrians as the vehicle is making a turn. The system must be designed to be reliable and prevent false announcements and repeat announcements.	
Comments:	
The pedestrian warning system shall allow for KAT configurable settings to adjust the audio volume based upon time of day.	
Comments:	
Central Systems and Reporting	
5.6.16. Computer Aided Dispatch and Automatic Vehicle Location (CAD/AVL)	
The CAD/AVL proposed system may be browser based on-site SQL server,	
cloud based, or other available technology. If the server is to be located on- premises, then proposers must provide the required hardware.	

GRATED SYSTEM REQUIREMENTS	Vendor Respons
Comments:	
The system must support local workstations and support remote access by	
proposer provided, ruggedized mobile computers/tablets/devices used by road	
supervisors and maintenance shop trucks.	
Comments:	
The CAD/AVL shall maintain all data received from the fleet and dispatcher	
activity and make it available for historical reporting and viewing.	
Comments:	
The CAD/AVL shall monitor all vehicles powered-on (fixed route, trolleys and	
demand response vans) and all operational data associated with the vehicle and	
vehicle operator. The CAD/AVL should also display the last known location	
of vehicles powered-off. Comments:	
Comments.	
The CAD/AVL shall correlate the operational data for each vehicle and	
operator, and provide multiple views of this information to simplify the	
management of the fleet and operators.	
Comments:	
The CAD/AVL shall provide for management of user preferences and rights by	
user.	
Comments:	
The CAD/AVL displays should include Google based maps (or equivalent) as	
the basis for route system display. Proposals shall detail how maps are	
updated.	
Comments:	
CAD/AVL maps should allow the user the following features at a minimum:	
Display of road network.	
• Route path display for a single route and multiple routes. Multiple	
routes must be distinguishable from each other.	
• Vehicle icon, direction of travel, and vehicle current status.	
Road distance tool.	
• User configured filters of what information to display for a vehicle	
• Find a vehicle based upon user defined criteria	
Find a vehicle based upon user defined criteriaFind closest supervisor to a vehicle	
*	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes 	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes Viewing of stops on routes 	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes Viewing of stops on routes Entering and displaying detours 	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes Viewing of stops on routes 	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes Viewing of stops on routes Entering and displaying detours 	
 Find closest supervisor to a vehicle Track a vehicle Viewing of time-points on routes Viewing of stops on routes Entering and displaying detours Comments: 	

CGRATED SYSTEM REQUIREMENTS	Vendor Respons
The CAD/AVL system should provide means of text messaging between	
dispatch and the operator. Text messaging should provide for canned and	
custom messages and responses. The system shall also provide for text to	
voice technology enabling dispatchers to text a message that an operator should	
hear in a vocal format.	
Comments:	
The CAD/AVL shall have the capability of displaying route and schedule	
adherence information for dispatchers.	
Comments:	
The CAD/AVL shall provide dispatch alerts such as a pop up message	
whenever a bus goes off route, or has not moved for KAT configurable and	
selectable periods of time.	
selectable periods of time.	
The CAD/AVL shall provide capabilities, displays and tools for headway	
visualization and a means of displaying vehicle bunching or gapping that may	
require dispatch intervention.	
Comments:	
When a vehicle is behind schedule, the CAD/AVL shall provide dispatchers	
the capability to deviate a vehicle from its assigned route to a point further	
down the route thereby placing the vehicle back on schedule. The system must	
factor out time points skipped in this process so as not to negatively effect on-	
time performance reports. Additionally, this route deviation process must	
update the passenger information system to provide accurate "next bus"	
information.	
Comments:	
The CAD/AVL shall have the capability to receive vehicle operator activated	
emergency alarms and immediately display alarm information to dispatchers	
and KAT defined staff.	
Comments:	
The dispatcher shall be able to enable a proposer supplied covert microphone	
onboard the vehicle with the emergency alarm activated to listen to the ambient	
audio around the driver. Covert audio shall be sufficiently clear so the	
dispatcher can discern what is happening on the vehicle. The driver's AVL	
interface device should provide a simple means for the operator to know	
dispatch is covertly monitoring their situation.	
Comments:	
Upon receipt from the vehicle of a request to cancel the emergency alarm, the	
dispatcher shall have the ability to easily cancel the CAD/AVL emergency	
alarm mode.	
Comments:	
The CAD/AVL system should have the capability to capture KAT configurable	
incidents (such as emergency alarms, hard breaking or vehicle impacts detected 1	
incidents (such as emergency alarms, hard breaking or vehicle impacts detected by the Apollo video system etc.) save data related to incidents and create	
by the Apollo video system, etc.), save data related to incidents and create	
incidents (such as emergency alarms, hard breaking or vehicle impacts detected by the Apollo video system, etc.), save data related to incidents and create CAD/AVL supported reports. Comments:	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The CAD/AVL system shall provide for vehicle and operator data replay	
selectable by specific vehicle, locations and time periods.	
Comments:	
The AVL system must provide a wide range of CAD information to road	
supervisors and maintenance shop trucks through awarded proposer provided	
ruggedized laptop computers, ruggedized tablets or other ruggedized	
automation device, eight (8) devices total. The devices provided must be easily	
mountable/removable from the support vehicle/shop truck and provided with	
appropriate accessories to maintain the device's electrical charge. Comments:	
Portable CAD devices must enable road supervisors to complete on-site reports	
and enter them into the central system, similar to functionality of a workstation,	
and have the capability of entering data to in-house KAT/City formatted	
reports and transmitting those reports through email or other means. Comments:	
Comments.	
The CAD/AVL proposal must provide the maintenance department and the	
dispatch office a large display screen, approximately 55" diagonal flat screen,	
displaying all active transit routes and current location of fleet vehicles	
operating those routes. One 55" display screen for maintenance, one 55"	
display screen for dispatch.	
Comments:	
The proposal shall provide details of other available CAD capabilities not	
mentioned above that provide for improved management of transit operations.	
Comments:	
5.6.17. Paratransit Service and Automatic Vehicle Location System	
Proposals shall include an OPTION for paratransit Automatic Vehicle	
Location and management system for KAT's demand response operation. This	
would be a replacement for the current Ecolane system. The term Paratransit is	
used to describe the demand response, advance reservation system that is	
offered by KAT to comply with provisions of the American's with Disabilities	
Act that require public transit systems to offer complementary paratransit	
service to individuals whose disabilities preclude them from making use of regular fixed route, scheduled, transit service.	
Comments:	
The paratransit solution shall provide for vehicle installed hardware, office	
backend software system (may be browser based) and communications	
enabling scheduling of authorized passenger trips, assignment and	
dissemination of drivers' manifest and trip schedules, schedule and manifest	
updates, automatic trip status updates, GPS driver directions both by visual	
mapping and audible turn-by-turn, and Google map based vehicle tracking	
(AVL). The system must produce schedules and manifests maximizing	
paratransit fleet efficiency based upon scheduled trips and vehicle capacities. The solution should be qualitable as a component of the fixed route CAD/AVI	
The solution should be available as a component of the fixed route CAD/AVL system or may be a separate system integrated with the fixed route CAD/AVL	
solution. Integration shall include AVL tracking and reports.	
solution. Integration shart metade revel a tacking and reports.	
Comments:	
Comments: The paratransit solution shall provide for scheduling trips through KAT	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
(integration required) and through a mobile app (preferably the same mobile	
app described below). The system shall provide accurate and efficient	
schedules based on KAT established parameters.	
Comments:	
The paratransit solution must provide for a wide range of reports including but	
not limited to ridership, revenue, individual passenger statistics (no show, late	
cancellation), passenger notifications, NTD reports, fleet utilization and	
efficiency, vehicle start and ending mileage, daily run productivity, on-time	
performance, vehicle and capacity demand reports. The system must have the	
capability to export reports in Excel, and MSWord format.	
Comments:	
The paratransit solution must provide for automated passenger notifications	
confirming trip reservations (24 hours prior), vehicle arriving soon (15 minutes	
prior), vehicle arrival at pick-up point, and passenger no-show. Notification	
options must include phone and text. The system must log passenger	
notifications and data be available for reports.	
Comments:	
The paratransit solution must fully integrate with the proposed fare collection	
solution.	
Comments:	
The paratransit solution must describe the training provided to paratransit	
vehicle operators and users of the software system.	
Comments:	
The paratransit solution must describe 24/7 maintenance support provided to	
KAT staff for the software system.	
Comments:	
The paratransit solution must provide information on other capabilities not	
discussed above.	
Comments:	
5.6.18. Micro-Transit Solution	
Proposals must include an option with discussion of capabilities for a micro-	
transit solution. The proposal should focus on software and systems that	
enables KAT to manage a micro-transit system with their own employees and	
transit assets.	
Comments:	
5.6.19. Real-Time Passenger Information System	
Proposers shall offer a real-time passenger information system that monitors	
current status of fleet vehicles, utilizes schedule data, generates predictions	
based upon actual real-time vehicle locations, and disseminates the information	
to transit center and equipped bus stop wayside signage, cellular phones via	
SMS, smartphones via a mobile application (mobile app), web site, and GTFS	
real-time open API data to the Internet for third party applications.	
Comments:	
The solution shall include a means of providing immediate information from the CAD/AVI on temperature shanges in tempsit correlate such as determined by the solution of th	
the CAD/AVL on temporary changes in transit service such as detours, route changes anow routes at a Information should be in the form of conned	
changes, snow routes, etc. Information should be in the form of canned messages and ad hoc messages.	
Comments:	

TEGRATED SYSTEM REQUIREMENTS	Vendor Response
Proposals should include an on-demand, dynamic trip planner within the	
mobile app integrating ride-share, bike-share and transit opportunities to	
provide riders a door-step to door-step solution	
Comments:	
Proposals shall include integration of transit fare payment options within the	
mobile app.	
Comments:	
The centralized management software shall also provide a means to view	
mobile app, text, and web site feedback from the public and a means to	
respond.	
Comments:	
Proposers shall describe various reports and operational statistics the	
centralized management software provides as related to the real-time passenger	
information system.	
Comments:	
5.6.20. Traffic Signal Priority System Compatibility	
The proposed solution must provide a list of traffic signal priority systems for	
which the proposed AVL system can currently integrate and communicate.	
Comments:	
5.6.21. Ridership Reporting	
Proposals must provide a comprehensive ridership reporting solution. This	
shall be through integration of the proposed APC system, proposed ABC	
system, existing GFI Odyssey system until replaced, a replacement fare	
collection system, Apollo's passenger counter over video, and other proposed	
integrated technology.	
Comments:	
Ridership reports shall include and not limited to the ability to select time	
periods, routes, route directions, individual fleet vehicles, and bus stop	
locations. Proposers shall provide details of other ridership reporting	
capabilities not described above.	
Comments:	
Ridership reporting shall integrate with the APC and ABC systems to provide	
extensive reporting features including but not limited to complete trip	
information (including transfers) and travel patterns and trends, bicycle	
loading/unloading trends, major trip generators, time of day/time of year and	
travel patterns. Comments:	
Comments.	
The ridership reporting solution shall include boarding and alighting data	
specific to wheelchairs and bicycles.	
Comments:	
The solution must provide for a means of validating ridership data to ensure	
The solution must provide for a means of validating ridership data to ensure accuracy.	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The solution must include an import of the existing GFI database system's	
ridership data for at least the past two years.	
Comments:	
Report formats shall also be made available that enables KAT to meet NTD	
reporting requirements.	
Comments:	
Reports shall include a wide range of text, tabular chart and graphical formats.	
Comments:	
Reports shall be customizable, exportable and printable.	
Comments:	
5.6.22. Operational Reporting	
The integrated system shall provide for long term storage of data for detailed	
historical operational reports (three years minimum).	
Comments:	
Automatic notification must be provided to select KAT staff prior to three-year	
old data being archived.	
Comments:	
The proposed solution shall provide details on offered reports and the degree to	
which they can be configured. Reports must be printable, exportable into	
editable Excel files <u>and</u> pdf format files. Operational reports shall include but not be limited to the following.	
• Miles driven by bus or driver per day/month/year/specified time	
period	
• Operator run time performance (time actually driven vs down	
time/temporary periods not driving due to unscheduled break)	
Route schedule adherence by time, route, driver, run	
Off route reporting	
Time point arrival/departure	
Non-time point arrival/departure	
Driver login/logoff report	
Operations service interruption/road call report	
• Departing/returning bus lot reports (actual vs scheduled, by run number and operator)	
Attempted duplicate work piece logon report	
GPS fix report	
Wheelchair passenger refusing passenger restraint	
• Excessive speed report by operator, vehicle and route	
• On-time performance reports by overall system, operator, route, and	
stops for specified time periods as well as time-of-day analysis, and early and late arrival reports.	
AVL/integrated systems bus download status report	
• A v L/ integrated systems bus dowinoad status report	
 AVL/integrated systems version report (bus on-board data) 	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
Comments:	
The reporting solution shall have the built in feature for KAT to generate ad-	
hoc reports. Ad-hoc generation should use simple form building.	
Comments:	
The reporting solution shall provide options for various reporting views and	
formats - text, tabular and various graphical/chart displays.	
Comments:	
Please provide details on additional reports and reporting capabilities not listed	
above.	
Comments:	
The reporting solution should allow users to distribute reports via email on	
demand, on a scheduled basis, or based upon KAT configurable thresholds.	
Comments:	
5.6.23. Human Resources Integration	
Integration to Unicorn HRO cloud based database to provide accurate time	
keeping data based upon driver run scheduling and driver-specific AVL log	
in/log off data and formatted to their Applications Protocol Interface (API)	
requirements. This interface must comply with Unicorn HRO's Interface	
Control Document (ICD). Proposers may contact the Unicorn contact listed in	
paragraph 3.4.12 above and at https://secure3.saashr.com/ta/docs/rest/public/.	
This solution shall have the goal of enabling KAT to maintain accurate work	
attendance time keeping data for vehicle operators through Unicorn's system.	
The solution must also produce driver work schedule and log-in/log-out time	
reports to support payroll records and archive these reports for at least three (3)	
years.	
Comments:	
5.6.24. Incident and Driver Safety/Training Profile Reporting	
The proposed solution must provide for a system of identifying and reporting	
incidences occurring on the bus that may require management action. The	
solution must interface with other vehicle installed systems and databases to	
obtain the following event triggers at a minimum.	
Hard braking	
Collision	
• Speeding	
Excessive acceleration	
• U-turns	
Sensitive edge activation	
Driver activated event (pressing a button)	
Pre-Trip compliance	
 Improper Bus Starting (Driver starts engine before "wait to start" light goes out) 	
The solution shall also address incidences KAT particularly struggles with	
which involves identifying exactly when a passenger related event occurred,	
such as a slip and fall, without requiring KAT staff to physically pull removable hard-drives from the Apollo surveillance system to view hours of	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
video footage only to identify when the event occurred and then capture and	
save the small amount of video footage needed for reports.	
Comments:	
The solution should include an annually renewable service that reviews event	
triggers and identifies related time period video footage and provides	
management notifications and alerts (email, text, etc.) based upon management	
established criteria. Comments:	
connicity.	
The solution must provide management incident reports with details on	
date/time, location, operator involved, event triggers, vehicle driving	
conditions (speeding, hard braking, etc.) and allow for addition of mobile	
device manual data entry by road supervisors conducting site and follow-up investigations.	
Comments:	
The solution must provide statistically based driver safety/training profile	
reports where daily operator event triggers and data entered from management actions (re-training, counseling, and disciplinary action events) are applied	
against management selected key performance indicators (KPI's). These	
reports should provide individual operator scoring indicating KPI attainment	
toward Public Transportation Agency Safety Plan (PTASP) targets.	
Comments:	·
5625 Driver Training Valida Simulation System	
5.6.25. Driver Training Vehicle Simulation System The proposed solution shall include an option for a driver training vehicle	
simulation system, preferably installed in KAT's drivers' training room,	
consisting of the following functionally integrated systems.	
• Single point login/AVL driver's interface device	
• Fare collection device(s)	
Hanover destination sign	
• AVA devices	
Voice communication system	
AVL canned text message communication system	
Other appropriate solution devices not mentioned	
Comments:	
5.6.26. Fixed Route "Run-Cut" Scheduling System	
Proposals shall include a fixed route scheduling "run-cut" software solution	
with the full range of scheduling options, robust reporting options, and	
flexibility to schedule and optimize driver runs consistent with KAT	
operational best practices and union labor rules. The solution shall also have	
the capability of providing ad hoc reports and a feature to export all reports to	
Microsoft Excel format. Comments:	
	1
The scheduling solution should include an Internet based means for operators	
to select their runs consistent with union labor rules. The solution must restrict	
operators from selecting runs in seniority order and the capability for a	
dispatcher to override a selection if an operator does not make a selection. The	

INTEGRATED SYSTEM REQUIREMENTS	Vendor Response
Comments:	
Proposers shall also propose a complete run-cut service as an option should KAT choose not to perform run-cut functions in-house. This service option must provide full flexibility in meeting KAT operational best practices and union labor rules.	
Comments:	1
5.6.27. Passenger Complaint/Commendation System	
The proposed solution shall provide for a means of recording passenger complaints and commendations received via telephone, email, passenger app, website and social media feedback, and customer service counter walk-ins. Comments:	
	T
The proposed solution shall provide for automatic email notification to appropriate staff members for investigating complaints and provide prompts to ensure investigations are completed and responses are provided to passengers (closing the loop). Comments:	
The proposed solution must provide for a wide range of reports in text, tabular and graphical displays. Reporting capabilities shall include the capability to link complaints to bus operators and other staff members. Reports should be extensive with printable standard reports and exportable data in editable Excel format for additional analysis and reporting. Comments:	
	1
The proposed solution must provide KAT staff the ability to create ad-hoc reports.	
Comments:	
5.6.28. Yard Management System	
The proposed solution shall include a yard management system integrated with the AVL, fixed route scheduling system, and existing Ecolane lift run assignments.	
Comments:	
The yard management system shall provide dispatch with a computer screen yard map of vehicle locations and assigned runs/drivers, spare vehicles (vehicles not assigned a block/run), and vehicles on HOLD or otherwise not available.	
Comments:	
The yard management system shall provide a roster of available extra-board operators and an easy means for the dispatcher to assign an extra-board operator to a run.	
Comments:	
The yard management system shall enable a dispatcher to easily reassign a driver to another vehicle. The system shall also integrate with the AVL system to validate the operator is utilizing the correct assigned vehicle.	
Comments:	

NTEGRATED SYSTEM REQUIREMENTS	Vendor Response
The yard management system should provide a means that prevents an operator	
from logging in to the AVL system if they attempt to take a bus not assigned to	
their run.	
Comments:	
Proposals shall provide details of other yard management system capabilities	
not mentioned above.	
Comments:	
Vayside Systems	
5.6.29. Transit Center Bus Bay Real-Time Electronic Signage	
The solution must include real-time electronic signs for each <i>outdoor</i> bus bay	
on the transit center platform displaying transit service information on vehicles	
servicing individual bays. KAT's transit center contains twenty (20) bus bays.	
LCD signage technology for outside use preferred.	
Comments:	
Bus bay signs must integrate with the central system and display bus arrival	
and departure predictions based upon route schedules and the current, real-time	
bus location and application of appropriate algorithms. Predicted arrival and	
departure time displays must adjust as necessary based upon delays	
experienced by transit vehicles.	
Comments:	
The solution shall also provide for a text to speech option at each bus bay sign	
for the hearing impaired.	
Comments:	
Should the bus bay signs temporarily loose connectivity with the central	
system, transit vehicle predictions should continue based upon the last known	
vehicle location and appropriate algorithms.	
Comments:	
5.6.30. Transit Center Real-Time Informational Electronic Displays	
The solution must include transit center real-time informational electronic	
display screens, one indoors across from the customer service desk, two outside	
on the bus platform at existing Digital Recorders sign locations and an option	
for a third on the bus platform. LCD signage technology for outside use	
preferred.	
Comments:	
Electronic display content shall rotate between transit vehicle arrival and	
departure predictions for all routes serviced at the transit center, public service	
slide presentation announcements, and information videos with audio produced	
by KAT or third-party providers for riders.	
Comments:	
Electronic display hardware installed on the bus platform must be vandal	
resistant and protected from extreme weather conditions. LCD signage	
technology for outside use preferred.	
Comments:	

NTEGRATED SYSTEM REQUIREMENTS	Vendor Response
Should the displays temporarily loose connectivity with the central system,	
transit vehicle predictions should continue in the same manner as bus bay	
signage.	
Comments:	
5.6.31. Bus Stop Real-Time Electronic Signage	
The solution must include electronic signs that provide transit vehicle arrival	
and departure predictions for all routes servicing the bus stop. Predictions shall	
be based upon actual vehicle location, not scheduled time. Bus stop electronic	
signage must have the capability of simultaneously displaying predicted arrival	
and departure times for up to five (5) routes servicing the stop.	
Proposals shall include signage systems for three existing bus stops, known as	
"super-stops", with options for expanding this capability to additional stop	
locations and locations near bus stops such as inside retail or residential	
location lobbies, etc.	
Comments:	
Installed electronic signage must be vandal resistant and protected from	
extreme weather conditions.	
Comments:	
nfrastructure	
nfrastructure 5.6.32. Garage WLAN and City Network Infrastructure	
frastructure 5.6.32. Garage WLAN and City Network Infrastructure Proposals shall include details as to garage WLAN upgrade requirements, what	
5.6.32. Garage WLAN and City Network Infrastructure	
5.6.32. Garage WLAN and City Network Infrastructure Proposals shall include details as to garage WLAN upgrade requirements, what	
5.6.32. Garage WLAN and City Network Infrastructure Proposals shall include details as to garage WLAN upgrade requirements, what the proposer is offering and what City Information Systems is expected to	
5.6.32. Garage WLAN and City Network Infrastructure Proposals shall include details as to garage WLAN upgrade requirements, what the proposer is offering and what City Information Systems is expected to provide.	
5.6.32. Garage WLAN and City Network Infrastructure Proposals shall include details as to garage WLAN upgrade requirements, what the proposer is offering and what City Information Systems is expected to provide. Comments:	
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5.7 Acceptance Testing

5.7.1 An Acceptance Test Plan will be developed for solutions, including hardware and software, delivered under the awarded contract. Such plan will be developed by mutual agreement prior to the solution component "going live" and will be produced on a basis

sufficient to demonstrate the system meets the requirements set forth in the RFP. The Acceptance Test Plan will be executed by the City, which may request either on-site or remote assistance of the awarded Contractor.

5.7.2 The mutually agreed to Acceptance Test Plan will define:

5.7.2.1 The procedures used to test the system (or solution component).

5.7.2.2 The resources required from the City and resources required from the awarded contractor.

5.7.3 During the scheduled acceptance testing period and according to the mutually agreed to Acceptance Test Plan, City project personnel will work to identify any errors where the System does not conform materially to the Agreement or the Contract Documents. Any such errors will be documented by the City on an Acceptance Test – Punch List. Errors listed on the Acceptance Test – Punch List must be properly addressed and corrected to the City's satisfaction prior to acceptance of the solution and achievement of related milestones.

5.8 Warranty, Training, and Maintenance Service

5.8.1 Warranty

5.8.1.1 The contractor shall warrant all hardware and installation to be free from defects during the warranty period and assume sole responsibility for the performance of all equipment, materials, and labor provided by the contractor and sub-contractors.

5.8.1.2 The base warranty shall be for a minimum of two (2) years for parts and labor. An extended warranty shall also be offered and pricing provided in proposal submission.

5.8.1.3 Base warranty shall not begin until acceptance testing has successfully completed and the City project manager signs off on acceptance and completion of the project.

5.8.2 Training

5.8.2.1 The awarded contractor shall provide training for all personnel who will operate and maintain the proposed systems once accepted.

5.8.2.2 Training shall be provided (at a minimum) for the following:

- Operation, troubleshooting and repair of the installed bus AVL, APC, ABC, automated pre-trip devices, infotainment and WiFi hardware systems.
- Operation, troubleshooting and repair of bus, facility installed and media kiosk fare collection hardware.
- Operation, troubleshooting and repair of installed wayside systems (transit center electronic signage and displays, bus stop electronic signage).

5.8.2.3 The awarded contractor shall provide a minimum of two (2) copies (electronic copies preferred) of the following documents for each hardware system:

- Manufacturer Preventative Maintenance Manuals.
- Operation Manuals.
- Electrical diagram/schematic sheets.
- Programming instructions.
- Parts listing with part numbers

5.8.2.4 The awarded contractor shall provide at least two (2) full training sessions for KAT maintenance personnel upon completion of installation, programming, and configuration of all proposed and installed systems. Each class size and vendor provided materials shall accommodate up to ten (10) mechanics.

5.8.3 Maintenance Service.

5.8.3.1 Proposal pricing shall include a two (2) year maintenance service agreement for all software systems provided. The service agreement shall provide for version updates, upgrades, patches, and system maintenance resulting from data problems and bugs. Proposals shall also include **optional** pricing for years three through five of a maintenance service agreement. The City may opt to purchase the first five (5) years at contract award should funding allow.

5.9 **Recommended parts list.** All proposers shall include a recommended spare parts list for all proposed systems with pricing.

VI. Contract Requirements

Submitting entities, if selected, must be willing to sign a contract with the City which will include certain provisions, among which are the following:

6.1 Contract Documents. The contract shall consist of (1) the RFP; (2) the proposal submitted by the contractor to this RFP; and (3) the contract. In the event of a discrepancy between the contract, the RFP and the submitted proposal, the terms that provide the greater benefit to the City and/or impose the greater obligation to the contractor will prevail.

6.2 Administration. The contract will be administered by the City of Knoxville's Knoxville Area Transit and Information Systems Department.

6.3 Invoices. Invoices for services will be submitted to the City in accordance with the contract terms.

6.4 Independent Contractor. The relationship of contractor to the City will be that of independent contractor. The contractor will be solely and entirely responsible for its acts and for the acts of its agents, employees, servants and subcontractors done during the performance of the contract. All services performed by the contractor shall be provided in an independent contractor capacity and not in the capacity of officers, agents, or employees of the City.

6.5 Assignment. The contractor shall not assign or transfer any interest in this contract

without prior written consent of the City of Knoxville.

6.6 Indemnification and Hold Harmless. The successful proposer will be required to sign a contract with the City which contains the following indemnification clause. This indemnification clause will not be altered in any way. Failure to agree with this indemnification clause in the contract may result in the City moving to the next responsible responsive proposer.

Contractor shall defend, indemnify and hold harmless the City, its officers, employees and agents from any and all liabilities which may accrue against the City, its officers, employees and agents or any third party for any and all lawsuits, claims, demands, losses or damages alleged to have arisen from an act or omission of Contractor in performance of this Agreement or from Contractor's failure to perform this Agreement using ordinary care and skill, except where such injury, damage, or loss was caused by the sole negligence of the City, its agents or employees.

Contractor shall save, indemnify and hold the City harmless from the cost of the defense of any claim, demand, suit or cause of action made or brought against the City alleging liability referenced above, including, but not limited to, costs, fees, attorney fees, and other expenses of any kind whatsoever arising in connection with the defense of the City; and Contractor shall assume and take over the defense of the City in any such claim, demand, suit, or cause of action upon written notice and demand for same by the City. Contractor will have the right to defend the City with counsel of its choice that is satisfactory to the City, and the City will provide reasonable cooperation in the defense as Contractor may request. Contractor will not consent to the entry of any judgment or enter into any settlement with respect to an indemnified claim without the prior written consent of the City, such consent not to be unreasonably withheld or delayed. The City shall have the right to participate in the defense against the indemnified claims with counsel of its choice at its own expense.

Contractor shall save, indemnify and hold City harmless and pay judgments that shall be rendered in any such actions, suits, claims or demands against City alleging liability referenced above.

The indemnification and hold harmless provisions of this Agreement shall survive termination of the Agreement.

6.7 Termination. The City may terminate this Agreement at any time, with or without cause, by written notice of termination to the Contractor.

If the City terminates this Agreement, and such termination is not a result of a default by the Contractor, the Contractor shall be entitled to receive as its sole and exclusive remedy the following amounts from the City, and the City shall have no further or other obligations to the Contractor: the amount due to the Contractor for work executed through the date of termination, not including any future fees, profits, or other compensation or payments which the Contractor would have been entitled to receive if this Agreement had not been terminated.

The City may, by written notice of default to the Contractor, terminate the whole or any part of this Agreement if the Contractor fails to perform any provisions of this Agreement and does not cure such failure within a period of ten (10) days (or such longer period as the Purchasing Agent

may authorize in writing) after receipt of said notice from the Purchasing Agent specifying such failure. If this Agreement is terminated in whole or in part for default, the City may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, supplies or services similar to those terminated.

6.8 Insurance. When applicable and prior to the commencement of the contract, contractor must, at its sole expense, obtain and maintain in full force and effect for the duration of the Agreement and any extension hereof at least the following types and amounts of insurance for claims which may arise from or in connection with this Agreement. Contractor shall furnish the City of Knoxville with properly executed certificates of insurance which shall clearly evidence all insurance required by the City. All insurance must be underwritten by insurers with an A.M. Best rating of A-VIII or better. Such insurance shall be at a minimum the following:

A. **Commercial General Liability Insurance**; occurrence version commercial general liability insurance, and if necessary umbrella liability insurance, with a limit of not less than \$2,000,000 each occurrence for bodily injury, personal injury, property damage, and products and completed operations. If such insurance contains a general aggregate limit, it shall apply separately to the work/location in this Agreement or be no less than \$3,000,000.

Such insurance shall:

(a.) Contain or be endorsed to contain a provision that includes the City, its officials, officers, employees, and volunteers as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. The coverage shall contain no special limitations on the scope of its protection afforded to the above-listed insureds. Proof of additional insured status up to and including copies of endorsements and/or policy wording will be required.

(b.) For any claims related to this project, Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, officers, employees, and volunteers. Any insurance or self-insurance programs covering the City, its officials, officers, employees, and volunteers shall be excess of Contractor's insurance and shall not contribute with it.

(c.) At the sole discretion of the City, dedicated limits of liability for this specific project may be required.

B. Automobile Liability Insurance; including vehicles owned, hired, and non-owned, with a combined single limit of not less than \$1,000,000 each accident. Such insurance shall include coverage for loading and unloading hazards. Insurance shall contain or be endorsed to contain a provision that includes the City, its officials, officers, employees, and volunteers as additional insureds with respect to liability arising out of automobiles owned, leased, hired, or borrowed

by or on behalf of Contractor.

- C. Workers' Compensation Insurance. Contractor shall maintain workers' compensation insurance with statutory limits as required by the State of Tennessee or other applicable laws and employers' liability insurance with limits of not less than \$500,000. Contractor shall require each of its subcontractors to provide Workers' Compensation for all of the latter's employees to be engaged in such work unless such employees are covered by Contractor's workers' compensation insurance coverage.
- D. Professional Liability (also referred to as Errors & Omissions). Contractor shall maintain professional liability insurance covering claims arising from real or alleged errors, omissions, or negligent acts committed in the performance of professional services under this Agreement with a limit of not less than \$3,000,000. Coverage for contingent bodily injury and property damage shall be included or endorsed onto the policy.
- E. Cyber Liability Insurance (also referred to as Network Security and **Privacy**). Contractor shall provide proof of Network Security and Privacy insurance with limits of not less than \$5,000,000 for each occurrence and an annual aggregate of \$5,000,000 covering claims involving privacy violations: information theft; damage to, or destruction of, electronic information; intentional and/or unintentional release of private information; alteration of electronic information; extortion; and network security. There should be no special limitations in the policy with respect to copyright, trademark, or other infringement of media. If not covered in a separate policy, the policy should include Technology Errors and Omissions. Coverage shall also provide business interruption and extra expense coverage. Such coverage is required only if any products and/or services related to information technology (including but not limited to hardware, software, consulting, data management, and database reporting) are provided to the City and for claims involving any professional services for which Contractor is engaged with the City for such length of time as necessary to cover any and all claims. Use of a claims-made policy must be approved by the City and will require evidence of a retroactive date prior to the inception of the agreement and at least 5 subsequent annual renewals after the agreement is complete.
- F. **Other Insurance Requirements.** Contractor shall:
- Prior to commencement of services, furnish the City with original certificates and amendatory endorsements effecting coverage required by this section and provide that such insurance shall not be cancelled, allowed to expire, or be materially reduced in coverage except on 30 days' prior written notice to the City Attorney of Knoxville; P.O. Box 1631; Knoxville, Tennessee 37901. Proof of policy provisions regarding notice of cancellation will be required.

- Upon the City's request, provide certified copies of endorsements and policies if requested by the City in lieu of or in addition to certificates of insurance. Copies of policies will only be requested when contracts are deemed to be extremely or uniquely hazardous, include a dollar amount that is significant to the overall budget of the City or a City Department, or the coverage(s) may not follow standard insurance forms. A policy will only be requested after the City's Risk Manager has reviewed the contract and proof of coverage has been provided. Should the certificate of insurance refer to specific coverage wording or endorsements(s), proof of such policy wording or endorsement(s) will be required.
- Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.
- Maintain such insurance from the time services commence until services are completed. Failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract.
- If Contractor cannot procure insurance through an insurer having an A.M. Best rating of A-VIII, Contractor may, in the alternative, place such insurance with insurer licensed to do business in Tennessee and having A.M. Best Company ratings of no less than A. Modification of this standard may be considered upon appeal to the City Law Director.
- Require all subcontractors to maintain during the term of the Agreement Commercial General Liability insurance, Business Automobile Liability insurance, and Workers' Compensation/Employer's Liability insurance (unless subcontractor's employees are covered by Contractor's insurance) in the same manner as specified for Contractor. Contractor shall furnish subcontractors' certificates of insurance to the City without expense immediately upon request.
- <u>Large Deductibles; Self-Insured Retentions</u>. Any deductibles and/or self-insured retentions greater than \$50,000 must be disclosed to and approved by the City of Knoxville prior to the commencement of services. Use of large deductibles and/or self-insured retentions may require proof of financial ability as determined by the City.
- <u>Waiver of Subrogation Required</u>. The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, and employees for losses arising from work performed by Contractor for the City. Proof of waiver of subrogation up to and including copies of endorsements and/or policy wording will be required.
- Occurrence Basis Requirement. All general liability policies must be written on an occurrence basis, unless the Risk Manager determines that a claims made basis is reasonable in the specific circumstance. Use of policies written on a claims made basis must be approved by the City. Risk Manager and retroactive dates and/or continuation dates must be provided to the City prior to commencement of any work

performed. Professional Liability and Environmental Liability (Pollution Coverage) are most commonly written on a claims made basis and are generally acceptable in that form.

6.9 Ethical Standards. Attention of all firms is directed to the following provisions contained in the Code of the City of Knoxville: Chapter 24, Article II, Section 24-33 entitled "Debts owed by persons receiving payments other than Salary;" Chapter 2, Article VIII, Division 11. the Contractor hereby takes notice of and affirms that it is not in violation of, or has not participated, and will not participate, in the violation of any of the following ethical standards prescribed by the Knoxville City Code:

A. Section 2-1048. Conflict of Interest.

It shall be unlawful for any employee of the city to participate, directly or indirectly, through decision, approval, disapproval, recommendation, preparation of any part of a purchase request, influencing the content of any specification or purchase standard, rendering of advice, investigation, auditing or otherwise, in any proceeding or application, request for ruling or other determination, claim or controversy or other matter pertaining to any contract or subcontract and any solicitation or proposal therefore, where to the employee's knowledge there is a financial interest possessed by:

(1) the employee or the employee's immediate family;

(2) A business other than a public agency in which the employee or member of the employee's immediate family serves as an officer, director, trustee, partner or employee; or

(3) Any person or business with whom the employee or a member of the employee's immediate family is negotiating or has an arrangement concerning prospective employment.

B. <u>Section 2-1049</u>. <u>Receipt of Benefits from City Contracts by Council Members,</u> Employees and Officers of the City.

It shall be unlawful for any member of council, member of the board of education, officer or employee of the city to have or hold any interest in the profits or emoluments of any contract, job, work or service, either by himself or by another, directly or indirectly. Any such contract for a job, work or service for the city in which any member of council, member of the board of education, officer or employee has or holds any such interest is void.

C. Section 2-1050. Gratuities and Kickbacks Prohibited.

It is unlawful for any person to offer, give or agree to give to any person, while a city employee, or for any person, while a city employee, to solicit, demand, accept or agree to accept from another person, anything of a pecuniary value for or because of:

(1) An official action taken, or to be taken, or which could be taken;

(2) A legal duty performed, or to be performed, or which could be performed; or (3) A legal duty violated, or to be violated, or which could be violated by such

person while a city employee.

Anything of nominal value shall be presumed not to constitute a gratuity under

this section.

Kickbacks. It is unlawful for any payment, gratuity, or benefit to be made by or on behalf of a subcontractor or any person associated therewith as an inducement for the award of a subcontract or order.

D. Section 2-1051. Covenant Relating to Contingent Fees.

(a) Representation of Contractor. Every person, before being awarded a contract in excess of ten thousand dollars (\$10,000.00) with the city, shall represent that no other person has been retained to solicit or secure the contract with the city upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except for bona fide employees or bona fide established commercial, selling agencies maintained by the person so representing for the purpose of securing business.

(b) Intentional Violation Unlawful. The intentional violation of the representation specified in subsection (a) of this section is unlawful.

E. <u>Section 2-1052</u>. <u>Restrictions on Employment of Present and Former City Employees</u>. Contemporaneous employment prohibited. It shall be unlawful for any city employee to become or be, while such employee, an employee of any party contracting with the particular department or agency in which the person is employed.

For violations of the ethical standards outlined in the Knoxville City Code, the City has the following remedies:

- (1) Oral or written warnings or reprimands;
- (2) Cancellation of transactions; and
- (3) Suspension or debarment from being a Contractor or subcontractor under city or city-funded contracts.

The value of anything transferred in violation of these ethical standards shall be recoverable by the City from such person. All procedures under this section shall be in accord with due process requirements, included but not limited to a right to notice and hearing prior to imposition of any cancellation, suspension or debarment from being a Contractor or subcontractor under a city contract.

6.10 Firms must comply with the President's Executive Order No. 11246 and 11375 which prohibit discrimination in employment regarding race, color, religion, sex or national origin. Firms must also comply with Title VI of the Civil Rights Act of 1964, Copeland Anti-Kick Back Act, the Contract Work Hours and Safety Standards Act, Section 402 of the Vietnam Veterans Adjustment Act of 1974, Section 503 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, all of which are herein incorporated by reference.

6.11 Firms shall give consideration to the inclusion of minority firms or individuals in this project, and shall advise the city in this proposal of their efforts to do so.

6.12 Firms shall give consideration to the use of environmentally sustainable best practices, and shall advise the city in this submittal of qualifications of their efforts to do so.

6.13 Federal, State, and Local Requirements. Each submitting entity is responsible for full compliance with all laws, rules and regulations which may be applicable.

6.14 Licenses. Before a contract is signed by the City, the submitting entity, if selected, **must** provide the City Purchasing Division with a copy of its valid business license **or** with an affidavit explaining why it is exempt from the business licensure requirements of the city or county in which it is headquartered. If a contract is signed, the contractor's business license shall be kept current throughout the duration of the contract, and the contractor shall inform the City of changes in its business name or location. The contractor must be a licensed professional as required by the state of Tennessee, see T.C.A. Sections 62-2-101 et. seq., for any services in this contract requiring such licensure.

6.15 Funding. The City's performance and obligation to pay under this contract is subject to funding contingent upon an annual appropriation.

6.16 Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the substantive laws of the State of Tennessee and its conflict of laws provisions. Venue for any action arising between the City and the Contractor from the Agreement shall lie in Knox County, Tennessee.

6.17 Subcontracts to the Agreement. Contractor shall not enter into a subcontract for any of the services performed under this Agreement without obtaining the prior written approval of the City.

6.18 Amendments. This Agreement may be modified only by a written amendment or addendum that has been executed and approved by the appropriate officials shown on the signature page of the Agreement.

6.19 Captions. The captions appearing in the Agreement are for convenience only and are not a part of the Agreement; they do not in any way limit or amplify the provisions of the Agreement.

6.20 Severability. If any provision of the Agreement is determined to be unenforceable or invalid, such determination shall not affect the validity of the other provisions contained in the Agreement. Failure to enforce any provision of the Agreement does not affect the rights of the parties to enforce such provision in another circumstance, nor does it affect the rights of the parties to enforce any other provision of this Agreement at any time.

6.21 No Benefit for Third Parties. The services to be performed by the Contractor pursuant to the Agreement with the City are intended solely for the benefit of the City, and no benefit is conferred hereby, nor is any contractual relationship established herewith, upon or with any person or entity not a party to the Agreement. No such person or entity shall be entitled to rely on the Contractor's performance of its services hereunder, and no right to assert a claim against

the City or the Contractor, its officers, employees, agents, or contractors shall accrue to the Contractor or to any subcontractors, independently retained professional consultant, supplier, fabricator, manufacturer, lender, tenant, insurer, surety, or any other third party as a result of this Agreement or the performance or non-performance of the Contractor's services hereunder.

The Contractor agrees to include the following clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions:

The parties acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the City of Knoxville, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

6.22 Non-Reliance of Parties. Parties explicitly agree that they have not relied upon any earlier or outside representations other than what has been included in the Agreement. Furthermore, neither party has been induced to enter into this Agreement by anything other than the specific written terms set forth herein.

6.23 Force Majeure. Neither party shall be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times shall be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall means the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.24 EEO/AA. The City of Knoxville is an EE/AA/Title VI/Section 504/ADA/ADEA Employer.

6.25 By submitting a proposal, the submitting entity agrees to all terms and conditions established in this RFP, including its contract requirements.

6.26 Price Escalation. The initial pricing proposed for software and hardware implementation will remain fixed through installation and for one full year following acceptance of the system. Following one year after acceptance, price escalation will be allowed as follows:

Ongoing Support and Maintenance

Proposer shall submit a firm fixed price for each of the first full five years of ongoing support and maintenance required.

Software and Software Installation Services

Should the City choose to exercise options to purchase additional functionality initially proposed but not currently funded, price escalation will be allowed. Upon completion of the first full year of use of the system following acceptance and upon subsequent anniversary dates of acceptance, the proposer may adjust the unit prices in accordance with the increase or decrease, if any, in the Producer Price Index (PPI), using as a basis of such adjustment the "Software Publishers: Other Application Software Publishing – PCU51121051121050202" ("Index") for the most recently published Index by the Bureau of Labor Statistics of the United States Department of Labor, excepting that the maximum annual increase shall not exceed **3.5**%. The new rate for each year will be calculated as per the following example:

PPI for current period (Current April Index):	110.4
-PPI for previous period (Prior April Index):	107.3
= Index point change	3.1

Index point change $(3.1) \div$ Prior year Index (110.4) = 0.028 (rounded up) x 100 = 2.8% index change

1.0% index change x current Unit Price = Price Increase + Current Unit Price = New Unit Price

The City also may adjust the contract downward if the PPI index decreases by (10%) or more from the date of the last increase in the unit price. The increase in the unit prices may occur after Contractor has given the City written notice of such change and the City Contract Manager approves the calculation.

Hardware and Equipment

Should the City choose to exercise options to purchase additional hardware or equipment initially proposed but not currently funded, price escalation will be allowed. Upon completion of the first full year of use of the system following acceptance and upon subsequent anniversary dates of acceptance, the proposer may adjust the unit prices in accordance with the increase or decrease, if any, in the Producer Price Index (PPI), using as a basis of such adjustment the "Retailing of computers, hardware, software, and supplies – PCU 4431004431002" ("Index") for the most recently published Index by the Bureau of Labor Statistics of the United States Department of Labor, excepting that the maximum annual increase shall not exceed **3.5**%. The new rate for each year will be calculated as per the following example:

PPI for current period (Current April Index):	110.4
-PPI for previous period (Prior April Index):	107.3
= Index point change	3.1

Index point change $(3.1) \div$ Prior year Index (110.4) = 0.028 (rounded up) x 100 = 2.8% index

change

1.0% index change x current Unit Price = Price Increase + Current Unit Price = New Unit Price

The City also may adjust the contract downward if the PPI index decreases by (10%) or more from the date of the last increase in the unit price. The increase in the unit prices may occur after Contractor has given the City written notice of such change and the City Contract Manager approves the calculation.

VII. Additional Federal Requirements for Contracts Funded by the Federal Transit Administration

Note the awarded contract will be either partially or fully funded by Federal Transit Administration grants provided to the City of Knoxville. The awarded contractor must agree and comply with the following required federal contract clauses and certifications.

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

7.1.1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the 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 the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

7.1.2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

7.1.3. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

7.2. Access to Records and Reports. The following access to records requirements apply to this Contract:

7.2.1. Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, sub-agreements, leases, subcontracts, arrangements, other third party agreements of any type, and supporting materials related to those records.

7.2.2. Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.333. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at 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 records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.

7.2.3. Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information related to performance of this contract as reasonably may be required.

7.2.4. Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract as reasonably may be required.

7.3. **Federal Changes**. The contractor shall at all times 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 City of Knoxville and FTA, as they may be amended or promulgated from time to time during the term of this contract. The contractor's failure to so comply shall constitute a material breach of this contract.

7.4. **Civil Rights Requirements**. The City of Knoxville is an Equal Opportunity Employer. As such, the City agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, the City agrees to comply with the requirements of 49 U.S.C. § 5323(h) (3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. Under this Agreement, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

7.4.1. Nondiscrimination. In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

7.4.2. Race, Color, Religion, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity

requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

7.4.3. Age. In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., 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, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

7.4.4. Disabilities. In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

7.5. Disadvantaged Business Enterprise (DBE) (49 CFR Part 26) -

7.5.1. 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. These requirements are in addition to all other equal opportunity employment requirements of this contract. A separate contract goal has not been established for this procurement.

7.5.2. The prime contractor and subcontractors shall not discriminate on the basis of race, color, 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 DOT-assisted 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 City of Knoxville deems appropriate, which may include, but is not limited to:

a. Withholding progress payments;

b. Assessing sanctions;

c. Liquidated damages; and/or

d. Disqualifying the contractor from future bidding as non-responsible. (49 CFR 26.13(b)).

7.5.3. Each subcontract the contractor signs with a subcontractor must include the assurance in the subparagraph above (see 49 CFR 26.13(b)). The successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

7.5.4. All bidders/proposers are required to submit the Subcontractor Information Form below. Additionally, the selected contractor, prior to contract award, must complete and submit the Commitment to Utilize DBE Certification form and subcontractors certified as DBE's through the TDOT Unified Certification Program who are participating in the project must submit the DBE Subcontractor Participation Certification form below.

7.5.5. The contractor is required to pay all of 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 City of Knoxville. Delays in payment must be approved in writing by the City of Knoxville. In addition, the contractor may not hold retainage from its subcontractors.

7.5.6. The contractor must promptly notify the City of Knoxville, 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 City of Knoxville.

7.6. Incorporation of Federal Transit Administration (FTA) Terms - Incorporation of Federal Transit Administration (FTA) Terms - The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth 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 City of Knoxville requests, which would cause the City of Knoxville to be in violation of the FTA terms and conditions.

7.7. Government-Wide Debarment and Suspension.

7.7.1. The Contractor shall comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200, which adopts

and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:

- a. Debarred from participation in any federally assisted Award;
- b. Suspended from participation in any federally assisted Award;
- c. Proposed for debarment from participation in any federally assisted Award;
- d. Declared ineligible to participate in any federally assisted Award;
- e. Voluntarily excluded from participation in any federally assisted Award; or
- f. Disqualified from participation in ay federally assisted Award.

7.7.2. By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by the City of Knoxville. If it is later determined by the City of Knoxville that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to the City of Knoxville, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. part 180, subpart C, as supplemented by 2 C.F.R. part 1200, while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

7.8. Buy America.

7.8.1. The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11.

7.8.2. A bidder or offeror must submit to the City of Knoxville the appropriate Buy America certification (below) with all bids or offers. Bids or offers that are not accompanied by a completed Buy America certification will be rejected as nonresponsive.

7.9. **Lobbying**. Contractors who apply or bid for an award of \$100,000 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.

7.10. Clean Air and Clean Water Act Requirements.

The contractor and their subcontractors awarded contracts exceeding \$150,000 must agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act and the Federal Water Pollution control Act.

The Contractor agrees:

- It will not use any violating facilities;
- It will report the use of facilities placed on or likely to be placed on the U.S. EPA "List of Violating Facilities;"
- It will report violations of use of prohibited facilities to FTA; and
- It will comply with the inspection and other requirements of the Clean Air Act, as amended, (42 U.S.C. §§ 7401 7671q); and the Federal Water Pollution Control Act as amended, (33 U.S.C. §§ 1251-1387).

7.11. **Cargo Preference Requirements**. For equipment, materials, or commodities which may be transported by ocean vessels, the contractor agrees:

7.11.1. To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;

7.11.2. To furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of -lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill-of-lading.)

7.11.3. To include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

7.12. Fly America Requirements.

7.12.1. Definitions. As used in this clause:

a. "International air transportation" means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.

b. "United States" means the 50 States, the District of Columbia, and outlying areas.

c. "U.S.-flag air carrier" means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

7.12.2. When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, recipients, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

7.12.3. If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.

7.12.4. In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

Statement of Unavailability of U.S.-Flag Air Carriers (For International Air Transportation of Personnel or Property)

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons. See FAR § 47.403. [State reasons]:

(End of statement)

7.12.5. The Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

7.13. Energy Conservation Requirements (42 U.S.C. 6321 et seq.; 49 CFR Part 18) – The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

7.14. **Conformance with ITS National Architecture** – The 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.

7.15. Americans with Disabilities Act (42 USC 12101, et seq.) and Section 504 of the Rehabilitation Act of 1973 (29 USC 794; 49 USC 5301(d))— The Contractor agrees to comply with all applicable requirements of the Americans with Disabilities Act of 1990, as amended, 42 USC §12101, et seq.; section 504 of the Rehabilitation Act of 1973, as amended, 29 USC §794; 49 USC §5301(d); and any implementing requirements FTA may issue. These regulations provide that no handicapped individual, solely by reason of his or her handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity included in or resulting from this Agreement.

7.16 Safe Operation of Motor Vehicles.

7.16.1. Seat belt use – 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.

7.16.2. Distracted driving – 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 Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

VIII. Instructions to Submitting Entities

All submissions of proposals shall comply with the following instructions. These instructions ensure that (1) submissions contain the information and documents required by the City RFP and (2) the submissions have a degree of uniformity to facilitate evaluation.

8.1 General

Submission forms and RFP documentation may be obtained on or after January 29, 2020, at no charge from:

City of Knoxville Purchasing Division City/County Building 400 Main Street, Room 667 Knoxville, Tennessee 37902

between 8:30 a.m. and 4:30 p.m. (Eastern Time), Monday through Friday or by calling 865/215-2070. Forms and RFP information are also available on the City web site at <u>www.knoxvilletn.gov/purchasing</u> where it can be read or printed using Adobe Acrobat Reader software.

8.2 Submission Information

Proposals shall include six (6) hard copies (one original and five duplicates—mark the original as such) and one electronic copy of the proposal (.pdf format on CD or USB drive only—mark the storage device with the company name); the electronic version shall be an exact duplicate of the original, and the electronic version will be the official document exhibited in the contract. Electronic submissions must be included with the sealed submissions; do not email your submission.

IMPORTANT NOTE: A minimum of one of the submitted proposals <u>must</u> bear an original signature, signed in ink (duplicated signatures substituted for original ink signatures may result in rejection of the proposals). This document is the official, original submission; the required copies may have copied signatures. The signature must be entered above the typed or printed name and title of the signer. All proposals must be signed by an officer of the company authorized to bind the firm to a contract.

Proposals will be received until 11:00:00 a.m. (Eastern Time) on March 25, 2020. Each proposal must be submitted in a sealed envelope addressed to:

City of Knoxville Purchasing Division City/County Building 400 Main Street, Room 667 Knoxville, TN 37902

IMPORTANT NOTE: Each mailing envelope or carton containing a proposal or multiple copies of the proposal must be sealed and plainly marked on the outside "Transit Integrated Advanced Technology." Proposers are reminded that the Purchasing Division receives many bids and proposals for any number of solicitations; unlabeled submissions are extremely difficult to match to their appropriate solicitations and therefore may be rejected.

Any proposals received after the time and date on the cover sheet will not be considered. It shall be the sole responsibility of the submitting entity to have the proposal delivered to the City of Knoxville Purchasing Division on or before that date.

Late proposals will not be considered. Proposals that arrive late due to the fault of United States Postal Service, United Parcel Service, DHL, FEDEX, any delivery/courier service, or any other carrier of any sort are still considered late and shall not be accepted by the City. Such proposals shall remain unopened and will be returned to the submitting entity upon request.

8.3 Format

The City is committed to reducing waste. Submissions of qualifications must be typed on 8.5 x 11 inch wide white paper, printed on both sides. DO NOT BIND the document; instead, staple or binder clip the submission together and place in a sealed envelope (see Paragraph 7.2). Pages must be consecutively numbered. A table of contents must be included in the proposal immediately after the title page, and each of the following numbered sections must be tabbed.

Proposals shall be structured as follows. Numbered items listed below should have a numbered tab page:

- 1. Title Page
- 2. Table of Contents
- 3. Submission Forms:
 - A. Form S-1
 - B. Non-Collusion Affidavit
 - C. No Contact/No Advocacy Affidavit
 - D. Iran Divestment Act Certification of Noninclusion
 - E. Diversity Business Enterprise Program
 - F. Buy America Certification
 - G. Lobbying Certification
 - H. Certification of Primary Participant Regarding Debarment, Suspension, and other Responsibility Matters
 - I. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction (for subcontractors)
 - J. Subcontractor Information Form
- 4. Body of Proposal: Information which submitting entity wishes to include in addition to detailed response to Section V Scope of Services
- 5. Contact information for at least three clients provided similar products and the dates of the respective contracts.
- 6. Sample itemized proposal cost form listing all base and option items

NOTE: All required submission forms may be found in this solicitation document.

8.4 Evaluation of Proposals

All qualified submissions received by the deadline will be analyzed by the Evaluation Committee according to the criteria outlined in these specifications. Failure to comply with the provisions of the RFP may cause any proposal to be ineligible for evaluation. Each submittal of proposals will be initially analyzed and judged according to the evaluation criteria below. The maximum score is 100 points.

The City reserves full discretion to determine the capability of proposing entities. Proposers, if asked, will provide, in a timely manner, any and all information that the City deems necessary to make such a decision. In addition to materials provided in the written responses to this RFP, the Committee may request additional material, information, references, a site visit, or a live test demonstration from the submitting entity or others.

The Evaluation Committee may or may not decide to interview any or all proposing entities at a time and date determined by the City in order to address questions and more fully ascertain how the solution to this project satisfies the evaluation criteria. Firms and/or teams responding to this Request for Proposals shall be available for interviews with the Evaluation Committee. Discussions may be conducted with responsible submitting entities for purposes of clarification to assure full understanding of and conformance to the RFP requirements. Selection shall be based on the firms' qualifications applicable to the scope and nature of the services to be performed per this request for proposals. Determination of firms' qualifications shall be based on their written responses to this Request for Proposals and information presented to the Evaluation Committee during oral interviews, if any.

In addition to materials provided in the written responses to this Request for Proposals, the Committee may request additional material, information, or references from the submitting entity or others.

Provided it is in the best interest of the City of Knoxville, the firm or team determined to be the most responsive to the City of Knoxville, taking into consideration the evaluation factors set forth in this Request for Proposals, will be selected to begin contract negotiations. The firm or team selected will be notified at the earliest practical date and invited to submit more comprehensive information if necessary. If no satisfactory agreement can be reached with the "most responsive firm," the City may elect to negotiate with the next best and most responsive firm or team.

IX. Evaluation Criteria

An evaluation team, composed of representatives of the City, will evaluate proposals on a variety of quantitative and qualitative criteria. Upon receipt of proposals, the City will review to determine whether the proposal is acceptable or non-acceptable based on the criteria outlined below.

The criteria and the associated weights upon which the evaluation of the proposals will be based include, but are not limited to, the following:

- 2. Specifications 40 points: Firm experience and proposal compliance with functional, technical, and integration requirements. Will include evaluation of the number of items provided without modification, integration with existing systems, ease of use by system users, compatibility with City network requirements, and other functional, technical, and integration considerations.
- **3. Product and support reliability 20 points:** Demonstrated system success and component reliability, quality of training, availability and responsiveness of support, commitment of long-term support of the product, financial stability of vendor and proposed subcontractors
- **4.** Team references 10 points: Proposal shall include professional experience and qualifications of the key personnel who will be involved in overseeing delivery, setup, monitoring, and removal of equipment. Review of references for evaluating product maturity.

Submission Forms

CITY OF KNOXVILLE REQUEST FOR PROPOSALS Transit Integrated Advanced Technology

Submission Form S-1

Proposals to be Received by 11:00:00 a.m., Eastern Time; March 25, 2020; in Room 667-674, City/County Building; Knoxville, Tennessee.

IMPORTANT: Proposals shall include six (6) hard copies (one original and five duplicates **mark the original as such**) and one electronic copy of the proposal (.pdf format on CD or USB drive only—**mark the storage device with the company name**); the electronic version shall be an exact duplicate of the original, and the electronic version will be the official document exhibited in the contract. **Electronic submissions must be included with the sealed submissions; do not email your submission.**

Please complete the following:
Legal Name of Proposer:
Address:
Telephone Number:
Fax Number:
Contact Person:
Email Address:
DUNS #:
Signature:
Name and Title of Signer:

Note: Failure to use these response sheets may disqualify your submission.

NON-COLLUSION AFFIDAVIT

State	of				
Coun	ty of				
	, bein	g first duly sworn	, deposes and	says that:	
(1)	He/She is the	_ of	,	the firm that has	
(2)	submitted the attached Proposal; He/She is fully informed respecting the preparation and contents of the attached Proposal and of all pertinent circumstances respecting such Proposal;				
(3)(4)(5)	Such Proposal is genuine and is not a collusive or sham Proposal; Neither the said firm nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other vendor, firm or person to submit collusive or sham proposal in connection with the contract or agreement for which the attached Proposal has been submitted or to refrain from making a proposal in connection with such contract or agreement, or collusion or communication or conference with any other firm, or, to fix any overhead, profit, or cost element of the proposal price or the proposal price of any other firm, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Knoxville or any person interested in the proposed contract or agreement; and				
(Sign	ed):				
Title:					
Subso	cribed and sworn to before me this	day of		, 20	
NOT	ARY PUBLIC				
My C	Commission expires				

No Contact/No Advocacy Affidavit

State of
County of
, being first duly sworn, deposes and says that:
(1) He/She is the owner, partner, officer, representative, or agent of
, the Proposer that has submitted the attached Proposal;
(2) The Proposer swears or affirms that he/she will abide by the following "No Contact" and "No Advocacy" clauses:
a) <u>NO CONTACT POLICY</u> : After the posting of this solicitation to the Purchasing Division's website, any contact initiated by any proposer with any City of Knoxville representative concerning this proposal is strictly prohibited, unless such contact is made with the Assistant Purchasing Agent (Penny Owens). Any unauthorized contact may cause the disqualification of the proposer from this procurement transaction.
b) <u>NO ADVOCATING POLICY</u> : To ensure the integrity of the review and evaluation process, companies and/or individuals submitting proposals for any part of this project, as well as those persons and/or companies representing such proposers, may not lobby or advocate to the City of Knoxville staff including, but not limited to, members of City Council, Office of the Mayor, Department of Information Systems, Knoxville Area Transit, or any other City staff.
Any company and/or individual who does not comply with the above stated "No Contact" and "No Advocating" policies may be subject to having their proposal rejected from consideration.
Signed:
Title:
Subscribed and sworn to before me this day of, 2
My commission expires:

IRAN DIVESTMENT ACT

Certification of Noninclusion

NOTICE: Pursuant to the Iran Divestment Act, Tenn. Code Ann. § 12-12-106 requires the State of Tennessee Chief Procurement Officer to publish, using creditable information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105. Inclusion on this list makes a person ineligible to contract with the state of Tennessee; if a person ceases its engagement in investment activities in Iran, it may be removed from the list. A list of entities ineligible to contract in the State of Tennessee Department of General Services or any political subdivision of the State may be found here:

https://www.tn.gov/content/dam/tn/generalservices/documents/cpo/cpo-library/public-informationlibrary/List of persons pursuant to Tenn. Code Ann. 12-12-106 Iran Divestment Act updated 7.7.17.pdf

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to T.C.A. § 12-12-106.

Vendor Name (Printed)	Address
Vendor Name (Finted)	Address
Dy (Authorized Cignotyne)	Data Evacutad
By (Authorized Signature)	Date Executed
Printed Name and Title of Person Signing	
Printed Name and Title of Person Signing	

NOTARY PUBLIC:

Subscribed and sworn to before me this _____ day of _____, 2____,

My commission expires:_____

DIVERSITY BUSINESS ENTERPRISE (DBE) PROGRAM

The City of Knoxville strongly encourages prime contractors to employ diverse businesses in the fulfillment of contracts/projects for the City of Knoxville.

The City of Knoxville's Fiscal Year 2020 goal is to conduct 4.82% of its business with minority-owned businesses, 10.73% of its business with woman-owned businesses, and 33.94% with small businesses.

While the City cannot engage (pursuant to state law) in preferential bidding practices, the City does **strongly encourage** prime contractors to seek out and hire diverse businesses in order to help the City meet its goals as stated above. As such, the City encourages prime contractors to seek out and consider competitive sub-bids and quotations from diverse businesses.

For DBE tracking purposes, the City requests that prime contractors who are bidding, proposing, or submitting statements of qualifications record whether or not they plan to employ DBE's as subcontractors or consultants. With that in mind, please fill out, sign and submit (with your bid/proposal) the following sub-contractor/ consultant statement.

CITY OF KNOXVILLE DIVERSITY BUSINESS DEFINITIONS

<u>Diversity Business Enterprise (DBE's)</u> are minority-owned (MOB), women-owned (WOB), servicedisabled veteran-owned (SDVO), and small businesses (SB), who are impeded from normal entry into the economic mainstream because of past practices of discrimination based on race or ethnic background. These persons must own at least 51% of the entity and operate or control the business on a daily basis.

<u>Minority:</u> A person who is a citizen or lawful admitted permanent resident of the United States and who is a member of one (1) of the following groups:

- a. <u>African American</u>, persons having origins in any of the Black racial groups of Africa;
- b. <u>Hispanic American</u>, persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race;
- c. <u>Native American</u>, persons who have origin in any of the original peoples of North America ;
- d. <u>Asian American</u>, person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.

Minority-owned business (MOB) is a continuing, independent, for profit business that performs a

commercially useful function, and is at least fifty-one percent (51%) owned and controlled by one (1) or more minority individuals.

<u>Woman-owned business</u> (WOB) is a continuing, independent, for profit business that performs a commercially useful function, and is at least fifty-one percent (51%) owned and controlled by one (1) or more women.

<u>Service Disabled Veteran-owned business</u> (SDOV) is a continuing, independent, for profit business that performs a commercially useful function, owned by any person who served honorably on active duty in the armed forces of the United States with at least a twenty percent (20%) disability that is service connected. Meaning such disability was incurred or aggravated in the line of duty in the active military, naval or air service, and is at least fifty-one percent (51%) owned and controlled by one (1) or more service disabled veteran.

<u>Small Business</u> (SB) is a continuing, independent, for profit business which performs a commercially useful function and has total gross receipts of not more than ten million dollars (\$10,000,000) average over a three-year period or employs no more than ninety-nine (99) persons on a full-time basis.

Subcontractor/Consultant Statement (TO BE SUBMITTED IN THE BID/PROPOSAL ENVELOPE)

We		_ do certify that on the
	(Bidder/Proposer Company Name)	·

(Project Name)

\$_____(Amount of Bid)

Please select one:

□ Option A: Intent to subcontract using Diverse Businesses

A Diversity business will be employed as subcontractor(s), vendor(s), supplier(s), or professional service(s). The estimated **dollar value** of the amount that we plan to pay is:

\$

Estimated Amount of Subcontracted Service

Diversity Business Enterprise Utilization			
		Diverse	
Description of		Classification	
Work/Project	Amount	(MOB, WOB,	Name of Diverse Business
		SB, SDOV)	

□ Option B: Intent to perform work "without" using Diverse Businesses

We hereby certify that it is our intent to perform 100 % of the work required for the contract, work will be completed without subcontracting, or we plan to subcontract with non-Diverse companies.

DATE:	COMPANY NAME:	
SUBMITTED BY:	TITLE:	
(Authorized Representative)	
ADDRESS		
CITY/STATE/ZIP CODE:		
TELEPHONE NO:		

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron, or manufactured products:

Certificate of Compliance with 49 U.S.C. 5323(j)(1):

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 C.F.R. Part 661.

Date	 	
Signature	 	
Company Name	 	
Title		

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1):

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations at 49 C.F.R. 661.7.

Date _____

Signature

Company Name

Title

LOBBYING CERTIFICATION (APPENDIX A, 49 CFR PART 20)

Certification for Contracts, Grants, Loans, and Cooperative Agreements (*To be submitted with each bid or offer exceeding \$100,000*):

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, 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 an 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 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 [as amended by "Government wide Guidance for New Restrictions on 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 was 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.

 Signature of Contractor's Authorized Official	
 Name and Title of Contractor's Authorized Official	
Date	

CERTIFICATION OF PRIMARY PARTICIPANT REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

The Primary Participant/Contractor, certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency,

2. Have not within a three-year period preceding this 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 under a public transaction,- 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;

3. 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) of this certification; and

4. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. If the primary participant (potential third party contractor) is unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.

THE PRIMARY PARTICIPANT/CONTRACTOR ______ 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.

Signature of Contractor's Authorized Official

Date

Typed Name and Title of Contractor's Authorized Official

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS (This form is for Sub-Contractors)

The potential lower tier participant _______certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the potential lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature/Authorized Certifying Official Typed Name

Title

Applicant/Organization

Date Signed

SUBCONTRACTOR INFORMATION FORM

Bidders/Proposers shall provide information requested below for all sub-contractors being utilized if awarded the procurement project being solicited. Note that all fields must be complete. If no sub-contractors are being utilized, indicated such by writing "N/A" within one of the information fields below.

Official Business Name of Sub-Contractor	Contact Information
	Contact Name:
	Phone #:
	Email:
Description of work sub-contractor will perform:	l
Dollar amount this sub-contractor's work	
represents within the bid/proposal:	\$
Office Use Only	DBE (Y/N):

Official Business Name of Sub-Contractor	Contact Information	
	Contact Name:	
	Phone #:	
	Email:	
Description of work sub-contractor will perform:		
Dollar amount this sub-contractor's work represents within the bid/proposal:	\$	
Office Use Only	DBE (Y/N):	

Official Business Name of Sub-Contractor	Contact Information
	Contact Name:
	Phone #:
	Email:
Description of work sub-contractor will perform:	1
Dollar amount this sub-contractor's work	¢
represents within the bid/proposal:	\$
Office Use Only	DBE (Y/N):

Official Business Name of Sub-Contractor	Contact Information	
	Contact Name:	
	Phone #:	
	Email:	
Description of work sub-contractor will perform:		
Dollar amount this sub-contractor's work represents within the bid/proposal:	\$	
Office Use Only	DBE (Y/N):	

PRICING PROPOSAL

Proposers shall use the information below as a guide in developing their proposed pricing. Proposers shall itemize as much as necessary to add clarity to the proposed solution. Include fixed pricing for all ongoing support and maintenance prices for years one (1) through five (5) of the contract period.

Item Description	Pricing
Transit Vehicle Installed Equipment	
Transit Vehicle Equipment Installation	
Transit Vehicle Systems Integration	
Automated Pre-Trip System Hardware	
Pre-Trip Automation System	
Integration of Proposed Systems	
Integration with Existing Systems	
Automatic Voice Annunciation System	
Automatic Passenger Counter System	
Automatic Bicycle Counter System	
Cummins Telematics Connectivity	
Automatic Vehicle Monitoring Integration	
On-Board Infotainment System	
Passenger Wi-Fi	
Fare Collection Solution	
Voice Radio Communication Integration	
Pedestrian Warning System	
Centralized Automation System	
CAD/AVL	

 Operational Reporting Incident Reporting Operator Driving Behavior Reporting

 Real-Time Passenger Information System

 Compatibility with Traffic Signal Prioritization

 Ridership Reporting

 Driver Training Vehicle Simulation System

 Fixed Route "Run-Cut" Scheduling System

 Optional fixed Route "Run-Cut" Scheduling Service

 Passenger Complaint/Commendation System

 Yard Management System

 Transit Center Bus Bay Electronic Signage

 Transit Center Informational Electronic Displays

 Bus Stop Electronic Signage

 Garage WLAN Infrastructure