**Intelligent Transportation Systems:**

**Reference:** [**https://www.tripsflorida.org/docs/APTS-21-%20software%20services%20RFP\_%204-16-21.pdf**](https://www.tripsflorida.org/docs/APTS-21-%20software%20services%20RFP_%204-16-21.pdf)

This section defines the minimum functional and performance requirements for deployment of ITS/Technology Solutions for Florida’s transit agencies.

* Vehicles include fixed route, trolleys, demand response vehicles and other transit vehicles.

**Base Items and Options:**

* Intended base contract items are bold and underlined below and must be included within each tier proposed. All other items shall be offered as “options” for purchase throughout the contract term as funding becomes available. Proposals shall provide details of other systems and capabilities not mentioned in this proposal.

Each tier shall include base items identified in that tier and a minimum of 50% of optional items identified for that tier. Successive tiers shall include all base items identified and 50% of optional items of all previous tiers.

**Tier 1**

**Paratransit and Small Rural System Fare revenue reporting**

**Ridership reporting**

• Automatic Vehicle Location and Computer Aided Dispatch (CAD/AVL)

• Single point vehicle log-in (AVL, AVA, Farebox, Destination Sign, etc.)

• Video surveillance system integration

**Fare collection/payment solution**

• Pedestrian recognition / warning system

• Paratransit management system

• Automated pre/post-trip system

**Tier 2**

**Small to Medium System with Fixed Route and Paratransit**

• Automatic voice annunciation (AVA)

**Automatic passenger counter (APC)**

**Real-time passenger information system** (mobile app, SMS messaging and website solution)

• Fixed route “run-cut” scheduling system

• Passenger complaint/commendation tracking and reporting system

• Maintenance management system

**Operational reporting Incident reporting**

• Garage WLAN

• Centralized AVL database control system (facilitates local updating for route and schedule changes into the AVL system)

• Automatic bicycle counter (ABC)

• Vehicle Telematics connectivity

• Collision avoidance system (Lane departure, forward collision warning, pedestrian warning, blind spot detection)

**Tier 3**

**Medium to Large System with Fixed Route and Paratransit**

• Yard management system

• Automated Vehicle Monitoring option

• Automated fuel management system

• On-board infotainment system

• Transit center bus bay real-time electronic signage

• Transit center real-time informational electronic displays

• Payroll management system

• Bus stops electronic signage (super stops and select bus stops)

• Passenger Wi-Fi

• Open data exports and reporting

The proposer should determine all necessary software, hardware, integration with legacy and proposed systems, training, and services needed to maximize the proposals technical specifications

#### Transit System Existing Intelligent Transportation System Technologies

The following technology solutions are currently being utilized by Florida’s public transit agencies. Proposers shall be capable of integrating these systems into a fully integrated intelligent transportation system solution.

#### Video Surveillance System

* + - * HD mobile recorder, high resolution HD 1920 X 1080 cameras installed in fixed route vehicles, trolleys, and paratransit vehicles.
      * Accelerometer to detect hard braking and collisions.
      * Automatic downloading through garage WLAN system
      * Passenger counting over video capability.
      * Capability to send video system maintenance fault code to an AVL/CAD 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 events 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.

#### Ruggedized Router

* + - * Fixed route vehicles, trolleys, demand response vehicles and other transit vehicles.
      * Enable communications for Wi-Fi to bus riders, cellular to AVL, and wireless communications required to upload/download files, dispatch, and video.
      * Integration expectation – Use of this router with new vehicle installed AVL systems, Wi-Fi, and integration with other vehicle-on-board systems.

#### Electronic Validating Farebox with (magnetic ticket reader/issuer machine)

* + - * Fixed route vehicles, trolleys, and demand response vehicles and other transit vehicle.
      * Integration expectation – Proposed fare collection solutions such as mobile ticketing, smart cards, and financial transaction reporting, etc.

#### Ticket Vending Machine (TVM)

* + - * At transfer stations, terminals, and major hub locations.
      * The TVM internal CPU is connected through Ethernet to the Agency network.
      * Ethernet connection enables agencies to obtain limited reports utilizing a provided application. Reports are limited to individual transactions and total transactions within a defined period.
      * Integration expectation – Proposers should address integration options with other proposed fare collection options, such as consolidated financial transaction reporting.

#### Paratransit Management System

* + - * Vehicles utilized are demand response vehicles and other transit vehicles.
      * Cloud based system, SQL server, or agency-based server enabling agencies to schedule para-transit service with registered clients. Installation must be compatible with tablets or mobile data terminals (MDTs) and must interface with CAD/AVL system.
      * The system enables agencies to schedule client transportation, automatically assign paratransit work to operators and make necessary last- minute changes to operator assignments. The system provides mileage reports, passenger reports, dead-head reports, fare, breakdowns, no-shows, and service utilization reports.
      * Provides an account-based payment, smart card, pass, or other payment system for the para-transit service.
      * Transit support staff key transactions to accounts when clients schedule para-transit service.
      * The account-based and other payment systems also provide periodic revenue reports and account balance reports.
      * Automated tablets or MDTs that interface with cloud-based server through a built-in cellular modem, radio, or other information transfer system. 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.

#### Automated Fuel Management System

* + - * Cloud based system, browser base SQL server, or agency-based server integrated bus fuel and fluids management system to interface with a SQL server residing at the transit Agency. This will be an automated fuel management system that authorizes, and tracks fluids dispensed into transit system vehicles.
      * The system will integrate with fuel storage tank monitoring systems to consolidate tank product quantities and provide inventory, leak test and alarm reports.
      * The system will perform automated downloads of vehicle IDs, mileages, and vehicle component maintenance codes.
      * The fuel management system uploads vehicle ID, fluids dispensed and mileage data into maintenance management software.
      * Integration expectation – Integrate to obtain maintenance data required for other proposed solution database reporting as needed.

#### Passenger App

* + - * App will feed existing AVL server XML data.
      * App will be supported on both ANDROID and iOS devices.
      * Integration expectation - providing immediate information from the CAD/AVL on temporary changes in transit service such as detours, route changes, etc.

#### Radio Communications System

* + - * Fixed route vehicles, trolleys, and demand response.
      * 800 MHz, Cellular, and FM system
      * Integration Expectation – Integration with the proposed AVL system to provide a closed-loop communication system controlled by agency central dispatch.

#### Maintenance Management Software

* + - * Cloud based system or browser base SQL server with access from agency network workstations.
      * This system manages maintenance department repair work orders, preventative maintenance scheduling, parts inventory management, both vendor and agency part numbers, and leased tire management.
      * Integration Expectation – The ability to capture work requests generated by an automated pre-trip system and the ability to auto-populate work orders for approved work requests.

#### Payroll Management System

* + - * Cloud based system or browser base SQL server will provide payroll timekeeping and attendance, employee information database, payroll deductions, IRS required deductions and filings, etc.
      * Browser based access.
      * Integration Expectation – Data integration enabling accurate time keeping for vehicle operators.

#### Hazard Detection Systems

* + - * Fixed route vehicles, trolleys, demand response vehicles and other transit vehicles.
      * Collision avoidance
      * Pedestrian warning and recognition
      * Lane departure
      * Integration Expectation – Integrate with vehicle turn signals, automated stop announcements, and vehicle exterior speakers.

#### Fixed Route Scheduling System

* + - * Cloud based system or browser base SQL server communications enabling scheduling of driver assignments, driver manifest, trip schedules, automatic trip status updates, GPS vehicle location, and directions both by visual mapping and audible turn-by-turn based on vehicle tracking (AVL).
      * Provide vehicle start and ending mileage, daily run productivity, and on-time performance.
      * Integration Expectation – Integrate with a complete run-cut solution with an option for full flexibility in meeting best practice and labor rules.

#### System Requirements

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| **On-Board Systems** |  |
| **5.3.1 Vehicle Logic Unit** | **Vendor Response** |
| Any proposed vehicle logic units (VLU) should serve as the computing  platform for all vehicle onboard ITS functionality |  |
| Vehicle Intelligent Transportation Systems, those installed as  proposed and existing systems. |  |
| 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. |  |
| The VLU shall include an embedded cellular modem or external modem compatible with agency selected cellular service provider. The modems shall have the ability to utilize most modern and legacy wireless data connections, higher capacity, Agency data connections when available, and automatically switchover to lower bandwidth networks (3G, 2.5G, 2G, etc.) when higher bandwidths are not  available. |  |
| The modems shall have the ability to utilize most modern and legacy wireless data connections, higher capacity, Agency data connections  when available, and automatically switchover to lower bandwidth |  |

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| networks (3G, 2.5G, 2G, etc.) when higher bandwidths are not available. |  |
| The VLU should include an embedded or external GPS receiver. |  |
| The VLU should control audio to interior and external speakers. |  |
| The solution shall provide a discrete driver’s button to alert Dispatch  of an emergency. |  |
| 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. |  |
| The VLU shall automatically turn on when the vehicle is powered up  and shall shut down at agency configurable time after the vehicle is shut down. |  |
| Comments: |  |
| **5.3.2 Automated pre-trip system** | **Vendor Response** |
| The solution shall propose a portable device for each revenue vehicle enabling an operator to easily and quickly, log in with ID, vehicle number, and perform DOT vehicle pre-trip inspections. The system must identify the operator and verify an actual “walk-around” was performed and systems were checked for proper function. The system must provide reports to management for pre-trip compliance  and defect work requests to maintenance managers. |  |
| Comments: |  |
| Management approved defect work requests should be designed to automatically upload into the maintenance management system and  auto-populate data fields on a work order. |  |
| Comments: |  |
| **5.3.3 Single point log-in and Operator’s Interface Device** | **Vendor Response** |
| The proposed system shall enable a bus operator to simultaneously log-in to the AVL/GPS, fare collection system, destination sign, Automatic Passenger Counter (APC), Automatic Bicycle Counter (ABC), and other installed integrated transit technology systems. This system shall also enable the operator to interface with the AVL system for  assigned vehicle runs. |  |

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| Comments: |  |
| Maintenance personnel shall have the ability to log-in to the system using the operator’s interface device to access on-board AVL system diagnostic functionality and perform preventative maintenance tasks with the use of maintenance personnel’s unique login 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 multiple platform-style maps 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 passenger using a wheelchair 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. |  |
| Comments: |  |
| **5.3.4 Automatic Voice Annunciation (AVA)** | **Vendor Response** |
| 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: |  |
| 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. |  |

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| 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 agency staff) |  |
| 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 agency staff at specified stops, specified non-stop locations, on demand by the operator, or as programmed by locations, and any combination of the above mentioned.  Date and time (visual display only, configurable to 12-hour and 24hour format)  The Proposer 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 agencies staff to create ADA route announcements, make changes to route announcements and develop custom public information announcements. The software shall also enable agency staff to upload announcements, changes, and custom announcements through the garage WLAN system and, alternatively, via USB flash  drive. |  |
| Comments: |  |

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| The solution must provide for all AVA system files and version updates to be uploaded in vehicle equipment through a WLAN system or direct download.  Alternatively, agencies 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 (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 agencies. Agencies 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 as well as additional languages. Additionally, the system shall be configurable in the  central software system to play all or any one language. |  | |
| Comments: |  | |
| 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 agencies shall have the in-house  capability to adjust trigger locations. | |  |
| Comments: | |  |

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| 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: |  |
| **5.3.5 Public Address System (PA)** | **Vendor Response** |
| 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 have the ability to adjust the PA volume. |  |
| Comments: |  |
| **5.3.6 Automatic Passenger Counter (APC)** | **Vendor Response** |
| The Proposer shall provide an APC solution that accurately counts passengers, both ambulatory and passengers using wheelchair,  boarding and alighting through all doors in fixed route vehicles. |  |
| Comments: |  |

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| 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 APC shall distinguish between and provide reports on wheelchair  users and ambulatory passengers. |  |
| Comments: |  |
| 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 Video passenger counting  over video capability to verify/supplement APC passenger counts. |  |
| Comments: |  |
| **5.3.7 Automatic Bicycle Counter** | **Vendor Response** |
| The Proposer shall provide an automatic bicycle counter solution to  provide an accurate count of bicycles placed on the bicycle rack. |  |
| Comments: |  |
| **5.3.8 Automatic Vehicle Monitoring /DATA Logger** | **Vendor Response** |
| 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: |  |
| The proposed solution shall provide the option to integrate with the existing fuel management system to obtain vehicle maintenance codes required for data integration with provided systems mentioned within |  |

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| these specifications, such as obtaining data for incident reports and operator driving behavior reports. |  |
| Comments: |  |
| **5.3.9 Vehicle Telematics Connectivity** | **Vendor Response** |
| The proposed technology solution MUST provide for vehicle direct link to maintenance system. All vehicle chassis connections shall be plug  and play. Cutting or splicing into OEM chassis harness is prohibited. |  |
| Comments: |  |
| **5.3.10 Vehicle Header Sign (Destination Sign) Integration** | **Vendor Response** |
| 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: |  |
| **5.3.11 On-Board Infotainment System** | **Vendor Response** |
| The proposed technology solution shall include an infotainment system  for all fixed route heavy-duty buses. |  |
| Comments: |  |
| The proposed system shall provide two flat screen displays mounted in  agency approved locations within each heavy-duty bus. Size and type will be determined by the individual agency. |  |
| Comments: |  |
| The infotainment system shall display current route progression preferably on a digital map, agencies generated public service slide presentation announcements, and information videos produced by  agencies or provided to agencies by third parties for viewing by riders. |  |
| Comments: |  |
| The infotainment system shall also have the capability of integrating  with the existing surveillance system to periodically display current internal camera views. |  |

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| 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 agency staff to develop and edit infotainment viewing content. The software package shall also enable the uploading of infotainment files through a  WLAN infrastructure and, alternatively, via a USB flash drive. |  |
| Comments: |  |
| **5.3.12 Passenger WIFI** | **Vendor Response** |
| The proposed solution shall include passenger Wi-Fi for all fixed route, demand response, and human services fleets. |  |
| Comments: |  |
| Proposals shall also offer Internet use agreement splash page and web  site filtering to prevent access to inappropriate content through a public Wi-Fi system. |  |
| Comments: |  |
| **5.3.13 Fare Collection Solution** | **Vendor Response** |
| 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, smart cards, 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. |  |
| Comments: |  |

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| 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: |  |
| 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 agency. Updates required to maintain compliance with debit/credit card encryption shall be the responsibility of the Proposer 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: |  |

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| **5.3.14 Voice Radio Communication Integration** | **Vendor Response** |
| The proposed solution shall provide a “closed loop” communication system by integrating the proposed CAD/AVL system with agency existing FM radio or other 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. |  |
| Comments: |  |
| **5.3.15 Pedestrian Warning System** | **Vendor Response** |
| 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 warnings and repeat  warnings. |  |
| Comments: |  |
| The pedestrian warning system shall allow for agency configurable  settings to adjust the audio volume based upon time of day. |  |
| Comments: |  |
| **Central Systems and Reporting** |  |
| **5.3.16 Computer Aided Dispatch and Automatic Vehicle Location**  **(CAD/AVL)** | **Vendor Response** |
| 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. |  |
| Comments: |  |
| The system must support local workstations and remote access by agency, provided, ruggedized mobile computers/tablets/devices used  by road supervisors and maintenance shop trucks. |  |
| Comments: |  |

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| 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: |  |
| 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 on a digital map 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 status |  |
| * Road distance tool. |  |
| * User configured filters of what information to display for a   vehicle |  |
| * Find a vehicle based upon user defined criteria |  |
| * Find closest supervisor to a vehicle |  |
| * Track a vehicle |  |
| * Viewing of time-points on routes |  |

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| * Viewing of stops on routes |  |
| * Viewing of vehicles schedule adherence. |  |
| * Entering and displaying detours |  |
| Comments: |  |
| The system shall provide dispatchers the ability to manually logon a  vehicle operator. |  |
| Comments: |  |
| 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 agencies  configurable and 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 information. On-time service  points will be user defined and easily adjusted. |  |
| Comments: |  |

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| The CAD/AVL shall have the capability to receive vehicle operator  activated emergency alarms and immediately display alarm information to dispatchers and agencies 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 agencies configurable incidents (such as emergency alarms, hard braking or vehicle impacts detected by the video system, etc.), save data related  to incidents and create CAD/AVL supported reports. |  |
| Comments: |  |
| The CAD/AVL system shall provide for vehicle and operator data replay  selectable by specific vehicle, location, 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. The devices provided must be easily mountable/removable from the support vehicle and provided with  appropriate accessories to maintain the device’s electrical charge. |  |
| Comments: |  |

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| Portable CAD devices must enable road supervisors to complete on-site reports and enter them into the central system, similar to the functionality of a workstation, and have the capability of entering data to in-house agency formatted reports and transmitting those reports  through email or other means. |  |
| Comments: |  |
| The CAD/AVL proposal must provide the maintenance department and  the dispatch office a large display screen, displaying all active transit routes and current location of fleet vehicles operating those routes. |  |
| Comments: |  |
| The proposal shall provide details of other available CAD capabilities  not mentioned above that provide for improved management of transit operations. |  |
| Comments: |  |
| **5.3.17 Paratransit Service and Automatic Vehicle Location System** | **Vendor Response** |
| Proposals shall include paratransit AVL and management system for Agency’s demand response operation. The term Paratransit is used to describe the demand response, an advance reservation system that is offered by Agencies 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 the regular fixed route, scheduled,  transit service. |  |
| Comments: |  |
| The paratransit solution shall provide for vehicle installed hardware, office backend software system 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 a digital map- based vehicle tracking (AVL). The system must produce schedules and  manifests maximizing paratransit fleet efficiency based upon scheduled |  |

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| trips and vehicle capacities. 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. |  |
| Comments: |  |
| The paratransit solution shall provide for scheduling trips through agency computer workstation entries, passenger entry through agency web site and through a mobile app (preferably the same mobile app described below). The system shall provide accurate and efficient  schedules based on agency 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 Agency 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: |  |

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| The paratransit solution must describe 24/7 maintenance support  provided to agency staff for the software system. |  |
| Comments: |  |
| The paratransit solution must provide information on other capabilities  not discussed above. |  |
| Comments: |  |
| **5.3.18 Micro-Transit Solution** | **Vendor Response** |
| Proposals must include an option with discussion of capabilities for a micro-transit solution. The proposal should focus on software systems that enables agencies to manage a micro-transit system with their own  employees and transit assets. |  |
| Comments: |  |
| **5.3.19 Real-Time Passenger Information System** | **Vendor Response** |
| 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/AVL on temporary changes in transit service such as detours, route changes, etc. Information should be in the form of  canned messages and ad hoc messages. |  |
| Comments: |  |
| 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-to-door solution |  |
| Comments: |  |

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| 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: |  |
| **5.4.20 Traffic Signal Priority System Compatibility** | **Vendor Response** |
| The proposed solution must provide a list of traffic signal priority  systems for which the proposed AVL system can currently integrate and communicate. |  |
| Comments: |  |
| **5.4.21 Ridership Reporting** | **Vendor Response** |
| Proposals must provide a comprehensive ridership reporting solution. This shall be through integration of the proposed Automatic Passenger Counter (APC) system, proposed Automatic Bicycle Counter (ABC) system, existing fare collection system, passenger counter over video,  and other proposed integrated technology. |  |
| Comments: |  |
| Ridership reports shall include and not be 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 |  |

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| trends, bicycle loading/unloading trends, major trip generators, time of day/time of year and travel patterns. |  |
| Comments: |  |
| The ridership reporting solution shall include boarding and alighting  data specific to wheelchair passengers and bicycles. |  |
| Comments: |  |
| The solution must provide for a means of validating ridership data to  ensure accuracy. |  |
| Comments: |  |
| The solution must include an import of the existing GFI database  system’s ridership data for at least the past five years. |  |
| Comments: |  |
| Report formats shall also be made available that enables agencies 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: |  |
| **5.3.22 Fixed Route Operational Reporting** | **Vendor Response** |
| The integrated system shall provide for long term storage of data for  detailed historical operational reports (five years minimum). |  |
| Comments: |  |
| Automatic notification must be provided to select agency staff prior to  five-year old data being archived. All archived data must be maintained in a transferable format. |  |

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| 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 and 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) |  |
| * Notify Dispatch/Scheduler when defined number of hours have   been reached per day and week and will exceed allowable time. |  |
| * 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 |  |
| * AVL/integrated systems version report (bus on-board data) |  |
| * Number of incidents/accidents by route, vehicle, and operator |  |
| Comments: |  |
| The reporting solution shall have the built-in feature for Agencies to generate ad hoc reports. Ad-hoc generation should use simple form  building. |  |
| Comments: |  |

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| 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 agency configurable thresholds. |  |
| Comments: |  |
| **5.3.23 Human Resources Integration** | **Vendor Response** |
| Integration to a 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 solution shall have the goal of enabling agencies to maintain accurate work attendance time keeping data for vehicle operators through the payroll 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 five (5) years. |  |
| Comments: |  |
| **5.3.24 Incident and Driver Safety/Training Profile Reporting** | **Vendor Response** |
| 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 |  |

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| * 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 agencies particularly struggles with which involves identifying exactly when a passenger related event occurred, such as a slip and fall, without requiring agencies staff to physically pull removable hard-drives from the surveillance system to view hours of 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: |  |
| 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: |  |
| **5.3.25 Intentionally left blank** | **Vendor Response** |
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| **5.3.26 Fixed Route “Run-Cut” Scheduling System** | **Vendor Response** |
| 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 agencies 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: |  |
| The scheduling solution should include an internet-based means for operators to select their runs consistent with union labor rules, and/or agency policy. The solution must restrict operators to selecting runs in assigned order and the capability for a dispatcher to override a selection if an operator does not make a selection. The solution should  include secure web site and mobile app technology. |  |
| Comments: |  |
| Proposers shall also propose a complete run-cut service as an option should agencies choose not to perform run-cut functions in-house. This service option must provide full flexibility in meeting agencies  operational best practices and union labor rules. |  |
| Comments: |  |
| **5.3.27 Passenger Complaint/Commendation System** | **Vendor Response** |
| 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: |  |
| 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: |  |

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| 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: |  |
| The proposed solution must provide agency staff the ability to create  ad-hoc reports. |  |
| Comments: |  |
| **5.3.28 Yard Management System** | **Vendor Response** |
| The proposed solution shall include a yard management system integrated with the AVL, fixed route scheduling system, and 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 vehicles and an easy means for the dispatcher to assign a vehicle to a  run. |  |
| Comments: |  |
| The yard management system shall enable a dispatcher to easily  reassign vehicle. The system shall also integrate with the AVL system to validate the operator is utilizing the correct assigned vehicle. |  |
| Comments: |  |
| 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. |  |

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| Comments: |  |
| Proposals shall provide details of other yard management system  capabilities not mentioned above. |  |
| Comments: |  |
| **Wayside Systems** |  |
| **5.3.29 Transit Center Bus Bay Real-Time Electronic Signage** | **Vendor Response** |
| The solution must include real-time electronic signs for each outdoor bus bay on the transit center platform displaying transit service information on vehicles servicing individual bays.  LCD signage technology for outside use designed shatter proof,  temperature, humidity, and rain resistant. |  |
| 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. |  |
| 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: |  |
| **5.3.30 Transit Center Real-Time Informational Electronic Displays** | **Vendor Response** |
| The solution must include transit center real-time informational  electronic display screens. LCD signage technology for outside use preferred. |  |
| Comments: |  |

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| 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 Agency or third-party providers for  riders. |  |
| Comments: |  |
| Electronic display hardware installed on the bus platform must be  vandal resistant and protected from Florida’s extreme weather conditions. LCD signage technology for outside use preferred. |  |
| Comments: |  |
| Should the displays temporarily loose connectivity with the central  system, transit vehicle predictions should continue in the same manner as bus bay signage. |  |
| Comments: |  |
| **5.3.31 Bus Stop Real-Time Electronic Signage** | **Vendor Response** |
| 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  multiple routes servicing the stop. |  |
| Proposals shall include signage systems for existing bus stops, known as “super-stops”, with options for expanding this capability to additional  stop locations such as inside retail or residential location lobbies, etc. |  |
| Comments: |  |
| Installed electronic signage must be vandal resistant and protected  from extreme weather conditions. |  |
| Comments: |  |
| **5.3.32 Garage WLAN and Agency Network Infrastructure** | **Vendor Response** |
| Proposals shall include details as to garage WLAN upgrade  requirements, what the Proposer is offering and what Agency Information Systems is expected to provide. |  |

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| Comments: |  |
| Proposals shall also include details as to what is required from the agency Information Systems network, what hardware requirements the Proposer is offering and what agencies are expected to provide for  network support and connectivity. |  |
| Proposers shall discuss how the solution integrates existing systems  described in paragraph 3.4 above. |  |
| Comments: |  |
| **5.3.33 Fuel Management System** | **Vendor Response** |
| The proposed solution shall include integration with a yard  management system and work order and inventory management system. |  |
| Comments: |  |
| The fuel management system shall provide a dashboard to manage all  aspects of a full-service fueling system. This dashboard must have a tailorable data base to agency needs. |  |
| Be capable of providing customized reports that can be set-up to show relevant fields and provide automatic reports. |  |
| Comments: | |
| Automatic logging of fuel type, quantity dispensed, person dispensing, date, time, location, vehicle I.D. |  |
| Ability to add authorized personnel and vehicles utilizing a multiple  layer security system using biometrics, badge readers, and/or security codes. |  |
| The 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. |  |
| The fuel management system will be integrated with the fuel tank level monitoring system and provide accurate reporting to the dashboard. |  |
| This system shall be integrated with the Garage WLAN and Agency Network Infrastructure |  |
| Comments: |  |

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| Proposals shall provide details of other fuel management system  capabilities not mentioned above. |  |
| Provide customized exports on a set schedule or as requested to the  inventory system for quantity report and reordering. |  |
| **5.3.34 Maintenance Work Order / Inventory Management System** | **Vendor Response** |
| The proposed solution shall include integration with a yard management system and fuel management system. |  |
| This system shall include stand alone and/or integration capability with the Garage WLAN and Agency Network Infrastructure. |  |
| The system shall provide a dashboard to manage all aspects of the  inventory/work order system. This dashboard must have a tailorable data base to agency needs. |  |
| Be capable of providing customized reports that can be set-up to show relevant fields and provide automatic reports. |  |
| Comments: |  |
| The Maintenance Work Order and Inventory Management System shall provide up to date reports on parts available, committed, and scheduled for use. Allowing automated re-ordering based on agency  criteria. |  |
| Create multiple purchase orders for multiple vendors at the same time.  The ability to see vehicles waiting product delivery and total time on the downed list. |  |
| Comments: |  |
| Maintain fleet and product inventory using RFID asset trackers, create and manage work orders, provide a preventative maintenance tracker. |  |
| Create work order that contain a complete product list, vehicle I.D., and technician assigned. |  |
| Comments: |  |
| The Maintenance Work Order and Inventory Management System shall  provide a roster of available Technicians and an easy means for work assignment. |  |
| The Maintenance Work Order and Inventory Management System shall  enable maintenance management to easily reassign a technician to another work order. |  |

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| Comments: |  |
| The Maintenance Work Order and Inventory Management System shall provide a means that prevents a technician from logging in to the wrong work order if they attempt to take a work order not assigned to  them. |  |
| The Maintenance Work Order and Inventory Management System shall provide a means that prevents a technician from logging in to a work order not assigned to them. The ability for multiple Technicians to be  assigned to the same work order as needed. |  |
| Comments: |  |
| **5.3.35 Other Intelligent Transportation System Options** | **Vendor Response** |
| Proposals shall also provide options of additional transit ITS features  available and not discussed above. |  |
| Comments: |  |

#### Hardware and Equipment

Should the agency 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:

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| 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) ÷ 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

FDOT/APTS 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 proposer has given FDOT/APTS written notice of such change and the FDOT/APTS Contract Manager approves the calculation.

#### Energy Conservation Requirements (42 U.S.C. 6321 et seq.; 49 CFR Part 622)

The proposer 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.

### Evaluation Criteria

The proposals for this RFP will have a two-step evaluation process. The technical proposals will first be evaluated by using the Minimum Requirements Criteria. The minimum qualifications will be an initial cutoff point for assessing minimum levels of capabilities. Compliance with each standard is required. The minimum requirements will be evaluated on a Pass/Fail basis. A single fail score on any of the minimum requirements shall render the proposal as not acceptable and eliminated from further consideration.

#### Step ONE

Proposers shall include a section in their proposals to specifically demonstrate each of the following requirements are met. The Department may elect to conduct interviews or request presentations from the proposer as part of the final evaluation. If an interview/ presentation is required, each firm's proposed project manager must take part in the interview/presentation

The interview/ presentations will also be evaluated on the basis of the criteria listed below. The Minimum Requirements Criteria are:

1. The proposal shall be submitted prior to the deadline and include all required documentation, certifications, and signatures.
2. Proposer shall have extensive experience in installation of intergraded ITS systems to include CAD/AVL, fare collection, Automatic Passenger Counts (APC), Automatic Voice Annunciation (AVA), cellular data, webpage, app, and a voice radio interface in the past five years.
3. Proposer shall demonstrate the ability to successfully perform all tasks outlined in this RFP across the State of Florida. This includes the financial and human resources to acquire, install, integrate, service, and repair all base-systems listed above.

#### Step TWO

The Proposers who meet the minimum technical requirements shall be evaluated according to the below evaluation criteria. The proposal shall contain a complete response to each of the areas identified below, in the order shown. Proposers should review the requirements listed under each area in providing their responses.

#### Experience Technical Capabilities and Qualifications: 50%

Executive Summary, Company Overview and Qualifications, Financial Statement, Contract Performance, Company References.

Consistent with a demonstrated knowledge and technical capabilities of the project scope of work, demonstrated system success and component reliability. 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 Agency network requirements, and other functional, technical, and integration considerations. Proposer shall provide detailed summaries or descriptions of the items listed in 5.2 base items.

Proposal shall limit descriptions of projects most relevant to this RFP and be most representative of the firm's capabilities.

#### Management, Methodology and Approach: 25%

Project Organization, Staff references, Management Approach. The Proposer will be evaluated in terms of its effective use and commitment of key personnel’s relevant experience/expertise, and education/training to conform to the requirements of the

RFP, quality of training, availability and responsiveness of support, commitment of long- term support of the product, financial stability of vendor and proposed subcontractors.

Proposer shall provide detailed summaries or description of the following:

* 1. Project experience from similar projects
  2. Assigned personnel project experience and proposed staff levels
  3. Full description of qualifications and the role of sub-contractors
  4. Proposed schedule, schedule performance on previous projects
  5. Proposed on-site presence
  6. Warranty, warranty support, and quality control
  7. The name and address of clients for whom similar work has been performed by the firm and principal members of the project team

Proposer shall demonstrate a clear understanding of the project objectives and the ability to adhere to the Specifications and Scope of Work outlined in this RFP.

#### Cost: 25%

Reasonableness of costs in relation to full implementation of ITS system and competitiveness with other offers received. The team will make evaluations of the price of the component/system, labor costs for installation and integration, and cost of annual maintenance and software service fees or licenses.

This evaluation may, at FDOT’s discretion, be augmented by verbal or written requests for clarification, and a technical interview. FDOT may request the finalist proposers to submit a Best and Final Offer (BAFO). The BAFOs will be evaluated using the Evaluation Criteria list above. The APTS will then determine the final, winning proposer(s) based on the discussions, interview, and BAFO.

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