

VVTA RFP 2025-05 APC CERTIFICATION SERVICES AND DASHBOARD SOFTWARE ADDENDUM NO. 2

Friday, April 4, 2025

The following set of questions were posed prior to the deadline on Friday, March 31, 2025, but were missed when Addendum No. 1 was created. The below also includes answers from VVTA Staff:

- Q1:** “Page 4 B. Purpose – Has VVTA executed any APC Accuracy evaluations on the IRIS APC’s on VVTA’s fixed-route bus fleet? If so, please provide the date(s) of the APC Accuracy evaluation and the results.”
A1: See Addendum No.1, A53
- Q2:** Page 4 B. Purpose – When were the IRIS APC’s installed on VVTA buses? Please pass along the models of the IRIS APC sensors and quantities of each model (IRMA6, IRMA Matrix, IRMA on Air, etc)
A2: The majority of APC’s were installed in 2021. VVTA currently has the IRMA Matrix model.
- Q3:** “Page 4 B. Purpose – 1 APC Certification – Is VVTA interested in APC certification for all modes or only Bus and Commuter Bus?”
A3: Motor Bus and Commuter Bus modes only.
- Q4:** “Page 4 B. Purpose – 2 Ridership Data Analysis Dashboard – What information does VVTA want to be present in the dashboard? How does VVTA define ‘timely’?”
A4: Features and functionalities expected for the dashboard are outlined in “Section C. APC Data Analysis Dashboard” starting on Page 2 of the Scope of Work. “Timely” would be as close to real-time data as possible, considering the need for data cleaning and validation.
- Q5:** “Page 4 B. Purpose – 2 Ridership Data Analysis Dashboard – Does VVTA want a separate dashboard for VVTA’s on-demand service?”
A5: No.
- Q6:** “Page 4 B. Purpose – 2 Ridership Data Analysis Dashboard – Would VVTA prefer the dashboard to be a local on-prem application or cloud based?”
A6: See Addendum No. 1, A96
- Q7:** Page 4 B. Purpose – 2 Ridership Data Analysis Dashboard – Chronologically, how much historical APC data is present at VVTA (starting date to current). Is raw APC data available? If not, please describe the level of detail in the historical APC data at VVTA.
A7: Raw APC data is available from 2022 forward.
- Q8:** “Page 8 J. Format of Proposals 1. h. 1 Technical Information – In this section (and other sections) there is reference to ‘Scope of Work’. However, there is not a ‘Scope of Work’ section in the RFP. Please define the ‘Scope of Work’ for RFP 2025-005.”
A8: VVTA updated the document on the VVTA/procurement page, as well as the publicpurchase.com site with the scope of work. However, as a courtesy, the scope of work is attached to this addendum.

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- Q9:** Attachment E. Task 1 and Task 2 – The costing forms attached appear to assume that both Task 1 and Task 2 are development tasks for which Hourly Rates would represent the full applicable costs. Typical RFP's of this nature recognize that many firms have already developed the APC software and dashboards. Please consider revising the format of the costing forms in Attachment E to allow firms to provide costs for the APC software and dashboard products that have been developed.
- A9:** In order for the Cost/Price evaluation to be completed, please enter as much of the applicable costing on the forms. The last pricing form includes an area to break down the cost for each task.
- Q10:** "Attachment E. Tasks 1-3 – What is the VVTA budget for this project?"
- A10:** See Addendum No. 1, A19
- Q11:** "Page 3 Table of Contents – Q. DBE Participation – Is there a goal/objective for DBE Participation relative to VVTA's RFP 2025-005?"
- A11:** See Addendum No. 1, A28
- Q12:** "Page 2 – Given the APTA Mobility Conference during the 04/06/25 thru 04/09/25 period, please consider revising the Proposal Due Date to 04/17/25.
- A12:** VVTA staff will also be attending the APTA conference and has considered your request. Please see below

The due date for proposals has been changed:

| | Originally | Changed to |
|-------------------|---------------------------------------|---------------------------------------|
| Proposal Due Date | 3:00 PM PDT, Thursday, April 10, 2025 | 3:00 PM PDT, Thursday, April 17, 2025 |

As stated in the RFP, all addenda must be acknowledged. Please use the form included in Attachment E, page 10, of the RFP to acknowledge receipt of this addendum. Failure to acknowledge any addenda to this RFP may be a cause to deem Bidder "Non-Responsive."

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ATTACHMENT A – SCOPE OF WORK

A. SCOPE OF SERVICES

VVTA is requesting proposals for APC certification services and dashboard software to enhance the agency's ability to report passenger data, and to assess trends in ridership and passenger demand.

VVTA currently utilizes IRIS APC's installed on the VVTA fixed-route bus fleet for APC ridership data collection

Key outcomes/goals for this project include:

- APC certification

Produce ridership data of sufficient accuracy to satisfy FTA reporting requirements to the National Transit Database (NTD), and relieve administrative workload associated with manually conducting passenger counts.

- Ridership Data Analysis Dashboard

Generate accurate, timely stop-level on/off ridership data reporting for each route by day of the week for better informed transit planning activities.

B. APC Certification

Benchmarking Plan

The Contractor will conduct a side-by-side comparison of manual passenger counts and APC counts for a specified sample of trips to assess the accuracy of the APC system. A minimum of 50 ridership checks will be reviewed which will include Weekday, Saturday, and Sunday bus trips. The difference between the manual passenger counts and APC counts for passenger boardings and passenger miles should be within a range of 5%. Ridership samples do not need to be drawn randomly but should be representative of the VVTA bus system. Distances between stops (e.g., interstop distances) used to calculate Passenger Miles Traveled (PMT) will be employed in both the manual and APC trips, with interstop distances provided by VVTA.

Business Rules and Data Cleaning

The Contractor will apply business rules to the raw APC data in an attempt to balance the advantages of a very large quantity of data generated by the APC system with the need for valid and defensible information. Business rules to be applied by the Contractor should include the following, with a detailed description of the methodology used:

- Data Cleaning and Data Discards at the Block Level
- Data Cleaning and Data Discards at the Trip Level
- Passenger Load Adjustments at the Beginning or End of a Trip

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A Data Discard Report will be provided for any APC data rejected with a summary of the reasons for data rejection.

Sampling Plan Validation

The Contractor will assess and describe VVTA's current NTD sampling plan methodology and the results of the most recent annual ridership and PMT data submitted to NTD and will provide a comparison to the data produced using the proposed APC methodology. The difference between the manual passenger counts and APC counts for passenger boardings and passenger miles should be within a range of 5%. The Contractor should provide an explanation for differences between data using the current and new methodology (i.e., sampling error, random sampling estimation), and shall conduct and present an analysis of statistical accuracy.

APC Maintenance Plan

The Contractor shall provide VVTA with an APC maintenance plan as required by NTD. The Maintenance Plan requires that the APC benchmarking process be repeated every third year using the same process as the original benchmarking plan. The Maintenance Plan should also include procedures for the annual testing and calibration of APC equipment.

Certification

The Contractor shall engage the services of a qualified statistician to review the APC benchmarking plan and certify the results for submission to NTD.

Deliverables:

- Analysis of Statistical Accuracy
- Data Discard Report
- APC Maintenance Plan
- NTD Certification Report

C. APC Data Analysis Dashboard

The Contractor shall develop an APC data analysis dashboard for reporting of all integrated data from the APC system. This dashboard will utilize ridership data derived by the APC system to format passenger count data and to provide enhanced reporting capabilities.

The APC data analysis dashboard shall provide a comprehensive set of printed and graphical ridership reports, and the ability for interactive data mapping that include:

- Ridership activity by route, trip, vehicle, operator, and operating division

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- Boardings/Alightings by time of day that is provided systemwide, by route, route segment, trip, bus stop, and direction
- Boardings/Alightings by location, route, trip, and direction
- Boardings/Alightings by time of day, route, route segment, trip, bus stop, direction, and systemwide
- Operating statistics by route, trip, direction, vehicle, and operating division
- Level of service – passenger loads by stop
- Ridership profile by service hours (time-of-day) and service day (weekend, weekday, holiday)
- National Transit Database reporting (e.g., passenger mile statistical reporting)
- Maximum Load Point by route and trip
- Dwell time
- Running time by trip and trip direction
- Key Performance Indicator statistics including boardings per revenue hour, boardings per revenue mile, passenger miles per seat mile, average trip length, average trip time.
- Number of APC surveys conducted by route per day, month, and year
- Survey coverage (% of scheduled trips surveyed)
- Bus stop utilization
- On-time performance by route, trip, direction, and stop

Software requirements include the following:

- Collection of ridership and schedule adherence data
- Next-day reporting
- Data analysis
- Generation of reports, both canned and customized
- Perform demand forecasts
- Cleaning of incoming APC data
- Wireless, automated data capture of all passenger count information. (i.e., no manual process for retrieving data from vehicles)
- Data validation and normalization against the operating schedule
- Incorporation of temporary routing detours, as needed, into reporting
- Passenger load balancing in accordance with NTD approved methods
- Provision of all relevant NTD reports (i.e., NTD Form S-10 information, Passenger Miles Traveled)
- Provision of data for use in scheduling and planning activities
- Integration with Synchomatics
- Integration with IRIS APC's

The system shall provide ridership analysis results in both tabular and graphical (charts and/or maps) formats.

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The APC reporting system shall correlate raw data to scheduled trips and known stops, both of which are defined by VVTA. In instances where the APC system is unable to correlate a location to a known stop, it shall record the ridership information as an uncorrelated (unknown stop). The APC reporting system shall produce reports on the unknown stops. No boardings and alightings on any trip that passed validation/cleansing shall be lost or discarded.

The APC reporting system shall provide an open data system, so that filtered data selectable by VVTA can be exported to common file formats, such as Access, Excel, GIS, Google Earth, and text files.

The reporting solution shall satisfy NTD reporting requirements for ridership and passenger miles.

The Contractor shall notate the data retention capabilities of the reporting system. A retention period of no less than two (2) years is preferred.

A Reporting Manual shall be provided to VVTA which will include graphical depictions and written descriptions of all functions required for developing all types of standard and custom reports.

D. TRAINING

The Contractor shall provide software training and manuals for VVTA staff as needed in the implementation of the APC data analysis dashboard. This shall include a list, description, and step-by-step written instructions for users on how to use the system, to generate canned reports from the system, etc. The Contractor shall work with VVTA to determine the most effective method of training on the software as well as the most cost-effective method for training requisite users. Training may be conducted in-person at the VVTA Hesperia facility and/or remotely, at VVTA's discretion. The Contractor shall provide a breakdown of training hours and cost in the Contractor's cost proposal form.

E. PROJECT MANAGEMENT

Project management will be a continuous and key responsibility of the Contractor. VVTA will designate a project manager to coordinate all of VVTA's project activities. All communication between VVTA and the Contractor shall be coordinated through their respective Project Managers. In the area of project management, the Contractor shall:

1. Maintain and update the work plan as approved by VVTA's Project Manager.
2. Coordinate project resources and work so that milestones are met in an efficient manner.

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3. Coordinate all required deliverables, including installation and configuration of software and hardware, documentation, and training, as required by the contract.

F. MAINTENANCE AND TECHNICAL SUPPORT

The Contractor shall provide ongoing technical support for the APC data analysis dashboard. The Contractor shall indicate the level of technical support and ongoing monitoring that will be provided in order to ensure the system is functioning properly. Software upgrades should be provided without additional charge as soon as they are available.

Technical support could include but is not limited to:

1. Application and User Support
 - Phone and email responses to software failures or questions within 24 hours.
 - Assistance with questions related to use of approved software configuration and software version.
 - Availability of experts to confer on software new release installation and fixes to newly identified bugs.
 - Software upgrades.
 - System maintenance
2. Hardware Support
 - Troubleshooting hardware or network failure.
 - Availability of hardware experts to support VVTA's network engineers charged with maintenance, upgrade or replacement tasks.
 - Assistance with technical recommendations focused on improving system performance.