**REQUEST FOR INFORMATION
RFI # 21-SEH-007**

**School Bus Routing and Fleet Management
Solution**

Issue Date: December 18, 2020
Questions Due: December 18, 2021, **2:30 pm local time**
Due Date and Time: January 6, 2021, 2:30 pm local time
Pre-Proposal Meeting: December 16, 2020,   11:30 am local time

Pre-Proposal Access Via Microsoft Teams Meeting:

Microsoft Teams meeting

Join on your computer or mobile app
[Click here to join the meeting](#)
Or call in (audio only)
[+1 240-600-1475,,294219992#](#)   United States, Bethesda
Phone Conference ID: 294 219 992#
[Find a local number](#) | [Reset PIN](#)
[Learn More](#) | [Meeting options](#)

General Information

Introduction

Harford County Public Schools (HCPS) currently has a student population of approximately 38,000 students. Of those, approximately 32,000 students are eligible for transportation services. HCPS has 54 schools and transports to multiple non-public special needs schools that are located outside of the county lines. HCPS has four magnet programs that provide service outside of the attendance area boundaries and multiple regional and county-wide special needs programs. Additionally, on average HCPS has over 29,000 field trips and athletic events that require transportation annually.

Harford County is approximately 500 square miles and is made up of both urban, suburban, and rural communities with approximately 244,000 residents. Currently HCPS has 29 bus contractors who own and operate 387 general education buses (including spares). HCPS owns and operates approximately 114 special needs buses (including spares).

Purpose of RFI

The Purpose of this Request for Information (RFI) is to acquire information regarding the potential for a fleet management solution that can align with a routing software program.

Background

HCPS currently contracts with 29 contractors for 387 general education buses (including spares). HCPS owns and operates approximately 114 special education buses (including spares). HCPS currently has an automated routing software program that assists in routing of general education bus routes and assigns students within the designated attendance area. Special needs bus routing is done manually with the assistance of no cost mapping programs.

HCPS special needs buses are currently equipped with LIVE GPS and a time and attendance feature for employees.

All HCPS and contractor buses are 95% equipped with on-board camera systems for the interior of the bus. All buses are also required to provide a cell phone for communication as needed. Contractor buses may be equipped with GPS; however, that is not for use by HCPS at this time and is optional.

Scope of Work

HCPS presently uses computerized routing software to plan bus trips, but seeks to enhance automation of student bus assignments, and seeks additional functionality offered by on-board GPS. Furthermore, the Pupil Transportation Office desires to work more seamlessly with the Construction and Planning Office to facilitate the boundary review process by using datasets, not limited, but to include:
- in-house enrollment projections
- GIS layers, capacity analysis
- Facility information system, and impact on bus routes.

HCPS Pupil Transportation Office has issued this Request for Information (RFI) to solicit submittals from qualified professional services firms to provide a School Bus Routing and Fleet Management Solution to facilitate school bus routing, not limited to but including

- School bus telematics
- GPS
- On-board communication
- Student verification systems
- Real time live camera systems
- Reporting for comparison reports to review contractor payments
- Boundary review as assigned to the Pupil Transportation Office and Office of Planning and Construction of the Harford County Public Schools System.

Requirements.

The Solution **shall** provide at a minimum the following:

1: School Bus Routing and Fleet Management

- Must maintain compatibility with ArcGIS platform and transfer data if needed from current system.
- Allows unlimited multiple users to view and edit bus routes simultaneously and control user-based security of map edits either with or without a VPN.
- Access rights should be defined by user roles, with each member of the roles inheriting the appropriated rights. System provides a fine grain of control over functional elements of the system so that users may be allowed "view", "edit" and/or "print" abilities. System provides for function level security levels for the map to allow some to view the map, some to edit features, and others full administrative access. Route records are automatically stamped with the username and time of change.
- Must allow the user to manage bulk street and address edits in-house without vendor intervention. Centerlines and addresses are maintained in an ESRI format by the Harford County Government and HCPS receives regular updated datasets of the county. Updated roads and addresses must be able to be added to the route map without the need of the vendor to accomplish this task (barring general questions or support issues).
- Software should allow for notes at the bus stop level including importing document files. Bus stops should be placed in the logical placement to the centerline, at the correct corner, not on the centerline itself. Bus stops should be coded as right-hand only, left-hand only, or cross street pick-up/drop-off.
- Vendor is to manage the process of software conversion including converting all necessary data from existing or legacy systems, providing test conversions to ensure accurate outputs in new system. Vendor shall provide maintenance and support throughout software implementation and continued support after software is implemented and annual maintenance is current.
- Software training must be provided to core operational staff responsible for the creation of bus routes and provide distributable training material for other groups (i.e. school-based staff). Vendor will train HCPS staff on live and operational data. Vendor will provide additional web-based training. Vendor should be able to provide additional training if requested. Vendor shall provide copies of software user's manuals either physically or electronically (electronically preferred). Vendor will submit a brief description of their training plan.

- The routing system is to leverage automation such as student bus assignment and multiple scheduled data imports and exports.
- The system should allow for manual exceptions to bus assignments when necessary and reasonable. System should provide a calendar capable of maintaining district-wide standard school year and summer school transportation schedules, such as holidays and early-out days for each school.
- Encodes map streets so as students are assigned to stops. Students will automatically be prevented from walking across hazardous roads to reach a bus stop, even if that stop is closer to their home than another.
- Roads should be encoded to prevent walkers to cross or walk, depending on hazard level and depending on grade level (i.e. roads may be safe for cross for all students except grades K–5.) Encodes transportation data, such as one-way streets, travel speeds, no travel roads, etc. Encodes travel restricted streets, and turn restrictions, that can restrict larger vehicles yet allow smaller ones. These restrictions should be automatically applied during routing so that the operator cannot inadvertently make a mistake on such roads.
- The routing system should be capable of running "what-if" scenarios (i.e. bell time, bus capacity, etc.).
- Routing software must be able to pair with GPS software for vehicle tracking.
- Software should be capable of checking planned routes against actual routes.
- Software must support the ability for users to create custom reports and dashboards.
- Software must include informational websites for the public (to find student's regular bus and bus stop) and school-based staff (to generate a student list by bus.) Allows parents of students to access a parent portal to obtain information about their student(s). * Preferably meets WCAG standards and ADA compliant. System should allow parents to discover the appropriate routing information upon the entry of an address and grade (parent portal). System should allow for a user to view routing information upon the entry of an address and grade (school portal). System should have an option to display a map with icons indicating the student home, stop, and school (school portal). System should provide the ability to search for and print stop lists and rosters at each school building, through the browser (school portal). The system should provide the ability to search for and print stop lists and rosters at each school building, through the browser (school portal). Provides for student lists with transportation information to be printed from the browser (school portal).
- Software must support the ability to email or print maps (either a single map or a batch of maps), and support printing on a variety of printer and plotter types.
- Software must accommodate students' unique student ID and additional family ID to identify family members or household members.
- Software must accommodate a vehicle's unique VIN number.
- Software must accommodate a school's unique school code assigned by the State of Maryland.
- The routing system should integrate with other enterprise data systems, including but not limited to, the Synergy Student Information System and/or Active Directory, through manual import/export, API, custom or prefab connectors and be capable of scheduled automation for data refresh.
- Software should have cloud based, on-premise, and/or hybrid hosting options with encryption at layers to safeguard data at rest and in transit.
- All data, and specifically Personally Identifiable Information (PII) must be encrypted while at rest and in transit, as well as be compliant with Family Educational Rights and Privacy Act (FERPA) requirements. Software must have audit capabilities to verify time and identity of individuals data access, views, edits, additions, and deletions.

- Two-way communication should be equipped on each bus including all spare buses.

2: GPS

- Vendor should explain how their routing software integrates with GPS (does the vendor offer a GPS solution, work with other GPS vendors, or both?). Vendor should explain how reports can be generated to review planned versus actual routes.
- Provide an example/explanation of suggested routing and GPS implementation best practices. In-bus GPS units should assist drivers by displaying route and stops to eliminate paper route sheets. In-bus GPS units should include the capability to track students and provide student lists to the driver.
- GPS should include data points such as speed, door open, stop arm deployment, hard stop, etc.
- GPS should include a secure public app to find the status/location/anticipated arrival of their child's bus.
- GPS should feed anticipated arrival to schools so staff can proactively anticipate late buses and communicate accordingly. Arrival board should only post arrival of buses servicing routes to their school.

3: School Planning

- Generate alternative boundaries based on direction from staff, Superintendent or Board of Education
- Create required and extemporaneous reports/maps
- HCPS Data Privacy Policies, FERPA compliance and ensure data at rest and in transit is properly secured and encrypted
- Compare plan options using a criteria matrix or other method to quickly compare scenarios against policy criteria
- Must have ability to use HCPS planning units
- Coordinate data verification for base scenario (existing boundaries)
- Demonstrate ability to test scenarios and create required outputs: reports, charts, maps

Additional Services:

School Bus Contractor Payments: The Pupil Transportation Office is interested in extending the capabilities of a routing software to include a custom contractor payment module, which would create a formatted file to be sent to the Finance Office for the issuance of school bus contractor payments.

- Determine and develop, collectively with the Pupil Transportation Office, specifications for the calculation of payments
- Determine and develop, collectively with the Pupil Transportation Office, the ability for inclusion of payment exceptions that may alter contractor pay, in addition to basic routing payments
- Develop a payment module
  - Test outputs and adjust accordingly
  - Create custom financial-focused reports useful for collecting and reporting on financial data for internal and external reporting

o   Develop and present a plan for ongoing support and future reporting needs for the payment portion of the system

---

RFI Coordinator/Communications
Upon release of this RFI, all communications should be directed in email to the RFI Coordinator listed below. Unauthorized contact regarding this RFI with other HCPS employees may result in disqualification. Any oral communications will be considered unofficial and non-binding on the School District.

RFI Coordinator for this RFI will be:
Name: Sara Harvey
Address: A.A. Roberty Building, 102 S. Hickory Ave., Purchasing Department, 3rd Floor
                Bel Air, MD 21014

E-mail: sara.harvey@hcps.org

Required Schedule
These dates are estimates and are subject to change by the HCPS.

Event	Date
Release RFI	December 11, 2020
Virtual Pre-Proposal	December 16, 2020
Questions Due	December 18, 2020 at 2:30 local time
Addendums Posted By	December 22, 2020
Requests for Information Due	January 6, 2021 at 2:30 pm local time
Review of RFI complete/decision made to do RFP	January 29, 2021

Response Format

Requests for Information should be prepared simply and provide the information requested. All responses should be submitted in Adobe PDF format.

Submittal Response Date and Location
Submittals must be submitted to the Purchasing Department **by email** to bids@hcps.org no later than January 6, 2021 at 2:30 pm local time. The Official Clock for submissions is within the purchasing office. All submittals and accompanying documentation will become the property of HCPS and will not be returned. Faxed and physical submittals will not be accepted. The submitting party accepts all risks of late delivery of e-mailed submittal regardless of fault.

Submittal Format
This Request for Information must be received by the RFI deadline via e-mail to bids@hcps.org. The School District, at its discretion, may make additional copies of the Requests for Information for the purpose of evaluation only.

Vendor's Cost to Develop Request for Information
Costs for developing responses to this RFI are entirely the obligation of the vendor and shall not be chargeable in any manner to HCPS.

No Obligation
This RFI imposes no contractual obligation whatsoever on the part of HCPS or Vendor.

Submittal Requirements:

Responses to this Request for Information should include the following:

1. **Company Background:** Provide general background information regarding your company including a summary of previous experience with similar size school districts.
2. **Specific listing of services provided:** Please identify any outsourced services or products your company would need to utilize to provide all required products.
3. **Costs:** Please list rough estimated costs for Harford County Public Schools to use your services.
4. **Service Levels:** Describe the level of service you propose for the implementation period and technology support and response time (e.g. 24x7 availability with 9am-5pm staffing).