



Missoula Urban Transportation District (MUTD)  
1221 Shakespeare St  
Missoula, MT 59802  
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## **REQUEST FOR PROPOSALS**

FOR

INTELLIGENT TRANSPORTATION SYSTEM

RFP 20-02

March 19, 2020

Advertised:

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## SECTION 1: SOLICITATION NOTICE

### 1.1 Notice

Notice is hereby given that Missoula Urban Transportation District (MUTD) has released Request for Proposals RFP 20-02 for a fully-featured, turn-key intelligent transportation system (ITS) that includes Computer Aided Dispatching/Automatic Vehicle Location (CAD/AVL), Digital Voice Annunciation System (DVAS), Mobile Data Terminals (MDT), Automatic Passenger Counting (APC), and real-time passenger information via wayside signage and web and mobile applications. Proposals are due at **5:00 PM MST on April 24, 2020.**

### 1.2 Communications with MUTD

Upon release of this solicitation document, all communications concerning this procurement must be directed to:

Vince Caristo  
Projects and Planning Manager  
Missoula Urban Transportation District  
1221 Shakespeare St, Missoula, MT 59802  
[vcaristo@mountainline.com](mailto:vcaristo@mountainline.com)  
406-215-2468

Unless authorized by the General Manager in writing, no other MUTD official or employee is empowered to speak for MUTD with respect to this Request for Proposals (RFP).

### 1.3 Submission of Proposals

Proposals shall be prepared as described in Section 3 of this RFP.

Submissions shall be sent via email in PDF format to Vince Caristo, Projects and Planning Manager, at [vcaristo@mountainline.com](mailto:vcaristo@mountainline.com).

### 1.4 Schedule

RFP Issued: March 19, 2020

Pre-Bid Meeting (Virtual): March 27, 12:00 PM MT

Clarifications/Questions Due: April 8, 2020

MUTD Responses to Clarifications/Questions: April 10, 2020

Proposals Due: April 24, 2020 at 5:00 PM MT

Interviews (if necessary): May 4 – 15, 2020

Notification of Selected Supplier: May 22, 2020

Board Approval: May 28, 2020

Notice to Proceed: May 29, 2020

### **1.5 Nonresponsive Submittals**

MUTD reserves the right to reject as non-responsive any submittal which is incomplete, obscure or irregular, or from Offerors who have previously failed to perform properly, or to complete on time, contracts of any nature. MUTD reserves the right to reject any or all submittals, based on its discretion alone.

### **1.6 Late Submittals, Modifications of Submittals, and Withdrawals of Submittals**

A modification of a submittal already received will be considered only if the proposed modification is received prior to the established deadline. Any submittal or modification received at the office designated in the solicitation after the exact time specified for receipt will be considered non-responsive and will be returned to the Offeror not opened.

The time of receipt at MUTD is the time-date stamped on the email or submittal envelope, or other documentary evidence of receipt maintained by MUTD.

Submittals may be officially withdrawn from consideration only by a written request to MUTD's point of contact as identified in Section 1.3 prior to the response deadline.

No Offeror may withdraw its submittal after the time announced for submitting or before the award and execution of the contract, unless the award is delayed for a period exceeding ninety (90) days.

### **1.7 Pre-contractual Expenses**

MUTD will not be responsible for any expenses incurred in preparing, submitting, or negotiating this proposal, and such costs should not be included in the proposal.

## **1.8 Pre-Bid Meeting**

MUTD staff will be available to answer questions from offerors during a pre-bid meeting on **Friday, March 27 from 12:00 PM to 1:00 PM MT**. The meeting will be conducted only by video and telephone conference; a physical meeting location will not be provided. Questions, comments and concerns can be submitted verbally by telephone or through the written chat feature of the conferencing software.

Participation in this meeting is optional. A video and audio recording of the meeting will be made available on the MUTD website directly following its conclusion.

The meeting can be accessed in the following ways:

- 1. Computer or Mobile App (Video and/or Audio):**  
<https://zoom.us/j/4065438386>
  
- 2. Phone Only:**  
Dial: (669) 900-6833  
Meeting ID: 406 543 8386

## **1.8 Requests for Clarification or Approved Equals**

All requests for clarifications, explanations, changes, substitutions, or approval of items equal to items with specified brand names must be submitted via email to the officer listed in Section 1.2 using the form in Exhibit A, and no later than the date listed in Section 1.4.

MUTD will provide a single written response to all properly submitted requests for clarification or approved equals as addendum on or before April 10, 2020. All addenda will be posted on the MUTD website at [www.mountainline.com](http://www.mountainline.com).

## **1.9 Acknowledgement of Addenda**

Please send an email to [vcaristo@mountainline.com](mailto:vcaristo@mountainline.com) to state your interest in submitting a proposal and to receiving any issued Addenda.

While MUTD will make efforts to provide addenda to all interested parties, it is the Offeror's responsibility to ensure that they have received and understand any and all addenda issued.

A completed 'Addendum Acknowledgement' form (Exhibit A) shall be included with all proposals.

## 1.10 Protest Procedures

### *Grounds for Protest*

A protest with may be filed by any interested party on the grounds that MUTD has:

- Failed to comply with its procurement procedures;
- Failed to comply with the terms of the solicitation in question, including the failure to adhere to the evaluation criteria set forth in the solicitation, if applicable;
- Issued restrictive or discriminatory specifications; or,
- Made an award to other than the lowest responsive and responsible bidder on formally advertised procurements.

### *Protest Contents*

Written protests should be concise, logical, and clearly state the grounds for the protest. They must include the following information:

- Name, address, and telephone number of protestor
- Identification of the solicitation or contract number
- A detailed statement of the legal and factual grounds of the protest including copies of relevant documents
- A statement as to what relief is requested.

All protest documents received by the General Manager shall be stamped with date and time received and logged into a file folder with a copy to the Master File.

### *Pre-Bid and Pre-Award Protests*

Protests addressing the solicitation process or the solicitation documents, including the specifications, must be received by the General Manager within seven (7) calendar days of the decision to award a contract. Thereafter, any protest based on such grounds will not be considered.

### *Post-Award Protests*

Protests addressing the approval or award, including the evaluation of bids or proposals, must be received by the General Manager within five (5) days after the decision to award a contract. Thereafter, any protest based on such grounds will not be considered. MUTD will notify all unsuccessful bidders or proposers of its intent to award a contract at the same time it notifies the successful bidder or proposer.

### *Protest Response*

MUTD will notify the protestor within 3 days of receipt that the protest is being considered. Upon receipt of a timely protest regarding the solicitation process, MUTD will postpone the opening of bids until resolution of the protest. The filing of the protest will not, however, change the date on which bids are due, unless otherwise noticed.

Upon receipt of a timely protest regarding the evaluation or award, MUTD will suspend contract approval or other pending action until resolution of the protest, unless the General Manager determines in writing that:

- The items to be procured are urgently required; or
- Delivery or performance will be unduly delayed by failure to make the award promptly; or
- Failure to make prompt award will otherwise cause undue harm to MUTD or the State or the Federal Government.

*Protest Decision*

The decision of the General Manager shall be issued in writing within fourteen (14) days of receipt of the protest, and shall be the final binding agency action. If the protest is upheld, MUTD will take appropriate action to correct the procurement process, such as a re-solicitation, revised evaluation, or termination of contract. If the protest is denied, MUTD will proceed with its procurement process.

The Federal Transit Administration will only entertain a protest that alleges the District failed to follow their protest procedures and such a protest must be filed in accordance with FTA Circular 4220.1F.

**1.11 Disadvantaged Business Enterprise Participation**

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 applies to this contract. The requirements of this contract are to encourage DBE participation and to report race neutral accomplishments semi-annually. No preference will be included in the submission evaluation, no minimum level of DBE participation shall be required as condition for receiving an award and submissions will not be rejected or considered non-responsive on that basis.

**1.12 Public Disclosure of Information**

All the information contained in the submittal is subject to the State of Montana public disclosure laws. If an Offeror feels that any information is confidential or proprietary in nature, the Offeror must submit all such information in a separate sealed envelope prominently marked with the Offeror's name and "Exempt from Public Disclosure." MUTD shall not release or divulge such information to third parties without the consent of the Offeror unless required to do so by applicable law or order of a court of competent jurisdiction.

MUTD assumes no responsibility or liability for any losses or damages which may result from the information contained in the submittal. Furthermore, it will be the responsibility of the Offeror to protect the confidentiality of any information submitted in the submittal, and the Offeror will assume all liability and responsibility for any information declared confidential and shall defend and hold MUTD harmless for any cost, penalties, and/or fees (including attorney fees) incurred in any action regarding the disclosure of said information.

### 1.13 Federal Clauses and Requirements

MUTD receives funding from the Federal Transit Administration to assist with transit operations and capital expenses. As such, third party contracts involving the use of federal funds are subject to applicable federal requirements. A full listing of these requirements can be found at [http://www.mountainline.com/wp-content/uploads/2017/07/MUTD-Federal-Clauses-and-Certifications Master July-2017.pdf](http://www.mountainline.com/wp-content/uploads/2017/07/MUTD-Federal-Clauses-and-Certifications_Master_July-2017.pdf)

## SECTION 2: SCOPE OF WORK

### 2.1 Overview

Missoula Urban Transportation District (MUTD) is seeking proposals from qualified vendors to provide a comprehensive, turn-key intelligent transportation system (ITS) for a fixed-route fleet of 31 buses. Integration with current ITS hardware including LED headsigns, LED passenger information signs, LED wayside signs, automatic passenger counting (APC) sensors, and routers is preferable. The system must be reliable, expandable, and able to meet MUTD's current and future ITS requirements.

The ITS should include the following features:

- Computer Assisted Dispatching and Automatic Vehicle Location (CAD/AVL)
- Digital Voice Annunciation System (DVAS)
- Automatic Passenger Counting (APC)
- Mobile Data Terminals (MDTs)
- Reporting and analytics
- Real-time passenger information via wayside signage and mobile and web applications.

### 2.2 Agency Information and Current ITS Environment

MUTD currently operates a fleet of 31 fixed-route vehicles that includes 6 Proterra battery-electric buses, 13 Gillig Low Floor BRTs, 5 Gillig Phantoms, 4 Eldorado EZRs and 1 Chance trolley bus. MUTD's current ITS environment consists of:

- Digital Recorders DR600 & DR700 vehicle logic units
- Digital Records CAD-AVL software
- Icomera Moovbox routers
- UTA APCs with Hella and CalAMP sensors
- Luminator and TwinVision headsigns
- Digital Recorders and Sunrise Systems on-board passenger information signs
- REI Bus Watch and Provision security camera systems
- Wayside signage
  - 4x Digital Recorders 2-line signs with Oracle Mesa Controllers
  - 1x Adaptive Alpha Eclipse 96x48" multi-line sign with Oracle Mesa Controller

### 2.3 System Requirements and Vendor Responsibilities

The ITS vendor will be expected to provide the following products and services:

- Computer Aided Dispatching/Automatic Vehicle Location (CAD/AVL) system that includes:
  - A cloud-hosted platform with an intuitive, web-based user interface that displays, at a minimum, the following information:
    - Driver ID and vehicle ID
    - Work information (run, block, route, etc.)

- Route and bus stop overlays on an easy-to-read map. Users should be able to view routes and stops individually or as an entire system or fleet
- Vehicle location, direction of travel, speed, and status (on-time, late, early)
- Vehicle health monitoring status and electric bus battery level indicator (preferable)
- Real-time passenger load
- Display and management of vehicle events such as:
  - Service alerts and equipment failures
  - Operator log-on and log-off
  - Schedule deviations and off-route notifications
  - Emergency alarms
  - Speeding, hard acceleration, hard braking, etc.
- A reporting module that includes the following reports and features:
  - Schedule adherence by route
  - Historic vehicle playback
  - On-time performance
  - Logged driver time
  - Arrival and departure times for any vehicle
  - CAD/AVL data should be available for at least 2 year
  - Reports should be exportable in standard formats, i.e. Excel, PDF, and/or GIS
- Backend administrative tools that can be accessed from any location and at any time
- The ability for MUTD staff to easily modify bus routes, stops, vehicle data, and schedules without having to contact the vendor
- Easy and quick account creation and deletion. Accounts should be assigned different access levels i.e. administrator, dispatcher, and viewer
- The ability to set boundaries around fixed routes for off route notifications (geo-fencing)
- The ability for dispatchers to assign buses to routes
- Live bus tracking that updates no more than every three seconds while the vehicle is in operation
- On-board hardware that is reliable, low-maintenance, and easy to update. Hardware that can be updated remotely is preferred
- Replacement or integration with digital wayside signage depending on the cost, and the ability to add additional wayside signs in the future
- Accurate, real-time arrival predictions
- The capability of offering a real-time transit data API and associated developer documentation
- GTFS-RT data feed and static GTFS export capability
- Two-way text communication through operator MDTs that include common, pre-defined phrases, quick yes/no driver responses, and priority level options (critical or standard). Text message function should be disabled while the bus is in motion.
- Option for voice over IP (VoIP) communication
- Mobile Data Terminals (MDTs) that include the following features:
  - Seamless functionality with CAD/AVL software and hardware

- Unique driver login and route/block selection
- An intuitive display that includes a route ladder of upcoming stops, next stop arrival times, turn-by-turn route navigation, and on-time performance
- Covert emergency alerting with the ability to turn on a live audio stream with dispatch
- Durable design that is shock-proof, waterproof, and resists extreme temperatures, sunlight, vibration, and impact
- Vendor-supplied docks that mount easily to the bus
- Pre-trip inspection module (preferred)
- Ability to connect to an engine control module to relay vehicle health monitoring information
- Digital Voice Annunciation System (DVAS) that features:
  - Automatic internal and external announcements that are triggered by bus location and user-defined GPS geofences
  - Web-based DVAS management platform that allows MUTD staff to configure when and where stop announcements occur and to program voice announcements phonetically using text-to-speech technology
  - Seamless integration with CAD/AVL system and interior bus LED signs
  - Americans With Disabilities Act (ADA) compliance
  - Ability to change announcement voices is preferred
- Automatic Passenger Counting (APC) System that includes:
  - Tracking of passenger boardings and alightings through sensors installed at the front and rear doors. Data should be recorded as a function of stops, routes, and runs
  - Integration with current CalAmp (infrared) and Hella (optical) APC sensors
  - Highly accurate data collection that meets or exceeds FTA requirements, demonstrates the ability to discriminate between passengers and non-passengers, and detect double-backs, re-crossings, and sensor obstructions
  - Configurable to push real-time passenger load data to the CAD/AVL system and bus tracking applications
  - Assignment of data based on driver login and route selection
  - Error/failure log and the ability to adapt and manage outlying data due to routing changes, vehicle tradeouts, detours, etc.
  - Web-based APC reporting module that includes the following features:
    - Easy to use, straightforward user interface
    - Accurate reports that have been cleaned of all errant data
    - Ability to track and report on all current NTD data requirements including vehicle revenue miles (VRM), vehicle revenue hours (VRH), deadhead miles, deadhead hours, deadhead miles, unlinked passenger trips (UPT), and passenger miles travelled (PMT)
    - 1-click NTD S-10 reporting is preferred
    - Wheelchair lift and bicycle rack use reports
    - Customizable reports for specific time periods (annually, monthly, weekly, daily, hourly) and ability to filter data by weekday service, Saturday service, or all service days

- Ridership reports that can be aggregated by stop, route, or trip
- Ability to export reports in Excel, PDF, and GIS data formats
- Web and Mobile Apps that feature:
  - Ability to use on Apple iOS, Android, and Windows operating systems with iPhone, Android, and mobile website apps offered free to the customer
  - Compatibility with standard browsers, i.e. Firefox, Chrome, Internet Explorer, Safari, and Android's native browser
  - Apps should display real-time bus locations, ETAs, bus stops, and routes on a familiar web map i.e. Google Maps, Mapbox, Apple Maps, etc. Routes should be able to be viewed individually or as the entire system
  - Input and display of route schedules
  - Embedded rider alerts and notifications
  - Integration with APCs to show passenger load and bike rack load information is preferred
  - Geolocation functionality – allow users to view their current location on a map
  - User-designated favorite routes and stops that can be easily accessed for fast display
  - Full ADA accessibility
  - Ability to upload and display custom bus icons
  - A flashing beacon display that riders can use to alert bus operators at night is preferred
  - Quick and easy data management and updates. Apps should be directly linked to CAD/AVL system so that only one set of data needs to be updated when changes are made to routes, stops, schedules, etc.
  - Option for SMS bus location messaging service

The vendor's responsibilities during the initialization of ITS shall include, but are not limited to, the following:

- System engineering, design, installation, and when possible, integration with current ITS components
- Initialization of the ITS using existing vehicle information, route schedules, operator data, bus stop locations, ridership data, etc. Initialization using existing data shall be done in a way that does not compromise the integrity of the data
- The vendor shall supply all equipment needed to successfully implement a functioning ITS and documentation for all vendor-supplied hardware and software
- The vendor will be responsible for contacting MUTD's current ITS hardware suppliers with whom they will need to integrate with. The vendor will be responsible for paying for the time and materials that are required to successfully integrate with current ITS components
- With future vehicle procurements, the vendor will work with vehicle manufactures to ensure OEM integration of ITS equipment and will provide on-site installation, testing, and verification of ITS components in all new bus builds

## **2.4 System Installation and Deployment**

Proposals shall include a deployment schedule that outlines the number of weeks from Notice to Proceed to project completion and meets the following deployment requirements:

### Pilot Program

The project plan shall include a pilot installation on 2 buses within 30 days of Notice to Proceed as a precondition for full system deployment. MUTD will give the approval to move forward with full system installation only after a successful deployment of the pilot program.

The pilot installation shall observe the following schedule:

- Installation of ITS hardware and software within 30 days of Notice to Proceed
- A two-week test period to ensure full functionality of the system
- Two weeks to correct any issues with the system

### Full-System Implementation

- Removal of current ITS components and a fleet-wide installation of ITS hardware and software will occur within 180 days of MUTD's approval following a successful pilot program
- Following fleet-wide installation, the vendor will be given 30 days to test and troubleshoot the ITS and 90 days to fix any issues with the system

## **2.5 Training**

The vendor shall provide comprehensive, on-site training programs that prepares MUTD staff for the operation, administration, and troubleshooting of the ITS. Vendor trainings should include, at a minimum:

- CAD/AVL/APC system training
- Operator training
- Road supervisor training
- Reporting and analytics training
- Maintenance training

## **2.6 Warranty and Support**

The initial contract shall include a warranty of a minimum of one (1) year for all hardware and software beginning at final acceptance and pricing for the first five (5) years of maintenance and support. Additionally, the vendor shall provide service contract requirements and anticipated costs beyond the initial three (3) year contract.

MUTD expects a high level of customer service and product support from the vendor and requires that any issues with the ITS be resolved in a timely fashion with minimal system downtime. The vendor's customer support should be available between the hours of 7AM to 7PM (MST), Monday through Friday, with access available on Saturdays. If hardware failures occur, replacement parts should be readily available and able to be obtained quickly.

The selected Vendor shall make parts and components available for repairs and replacements through the useful life benchmark of each bus the system is installed into.

## **2.6 Service Levels**

MUTD requires that the system and services provided by the vendor shall be available 99.9% of the time, excluding holidays, weekends, scheduled maintenance, and downtime resulting from outages of third party connections or utilities. For each period of downtime lasting longer than 30 minutes, MUTD will request a credit or refund of 5% of the annual service fee, but not more than once per day. Downtime shall begin to accrue as soon as MUTD recognizes that downtime is taking place, and will continue until the availability of the Services is restored. MUTD will notify the vendor within 24 hours from the time of downtime, and failure to provide such notice will forfeit the right to receive downtime credit.

## **SECTION 3: SUBMITTAL REQUIREMENTS**

### **3.1 Submittal Requirements**

To be considered for this project, vendors must have a proven track record of implementing comprehensive Intelligent Transportation Systems for small to medium-sized transit agencies. Vendors shall submit a proposal that includes the following information:

- A brief overview of the company including history and number of years in business
- Qualifications and experience in implementing similar projects
- A detailed work plan that outlines how the company plans to fulfill the scope of work and meet MUTD's IS requirements
- Description of all ITS hardware and software needed to fulfill the scope of work including anticipated integration capabilities
- Anticipated timeline for the completion of all required work
- List of exceptions to the requirements listed in the scope of work that cannot be met by the company
- Key personnel who will be involved with the project
- Three client references, including point of contact, agency name, address, and phone number
- Documentation of any history of litigation associated with project performance and/or professional liability
- Documentation of the firm's financial standing and insurance coverage

### 3.2 Pricing

In addition to the submittal requirements listed above, respondents should include a pricing scheme that includes:

- Lowest price option - cost to implement a fleet-wide ITS that maximizes integration with current hardware outlined in the Scope of Work
- Full replacement option - cost to implement a fleet-wide ITS that maximizes system usability and effectiveness but may have limited integration with current hardware

Pricing options should include:

- Hardware and software needed to fulfill the Scope of Work
- Installation and deployment of all equipment
- Subscription costs (annual service fees, maintenance fees, data management fees, or any other recurring costs) for the first five (5) years
- Training and customer support
- Per-vehicle installation price for new vehicles added to the fleet within the next 5 years.

## SECTION 4: EVALUATION PROCESS AND AWARD

### 4.1 Evaluation Committee

Evaluations will be performed by a committee comprised of MUTD staff. The evaluation committee will evaluate and select the proposal that best addresses the requirements of the project, in accordance with the criteria stated herein. MUTD reserves the right to reject any or all submittals.

### 4.2 Evaluation Criteria

Each proposal will be evaluated on the basis of the following factors:

Factor	Relative Weight
Responsiveness to technical specifications outlined in the Scope of Work, and vendor qualifications, experience, and references	Most important
Price	Very Important

#### 4.3 Selection Process

The responses to this solicitation will be evaluated based on their ability to meet MUTD's needs. The responses will be evaluated according to the criteria above by the selection committee, and the selection committee will make a recommendation to the MUTD Board of Directors to authorize the General Manager to execute a contract with the selected firm.

If agreement cannot be reached with the selected firm, MUTD will terminate negotiations with that firm and open negotiations with the next ranked firm. The compensation discussed with one firm will not be disclosed or discussed with another firm.

## Exhibit A:

### Required Forms and Certifications

*For a proposal to be considered responsive, the following forms, certifications, and/or statements are to be executed and enclosed with each proposal. Proposals received without these forms/certifications completed will not be considered. Compliance with these requirements is mandatory for a contract award.*

MISSOULA URBAN TRANSPORTATION DISTRICT

## ADDENDUM ACKNOWLEDGEMENT

Proposer/Bidder acknowledges receipt of the following addenda which are attached to the proposal/bid:

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

Failure to acknowledge receipt of all addenda may cause the proposal to be considered non-responsive and omitted from consideration.

