

# **City of Fargo**

*Global Positioning / Automatic Vehicle Location / DVR/ Route Optimization*

*Request for Proposals*



ADVERTISEMENT FOR PROPOSALS FOR:  
SOLID WASTE DEPARTMENT

Global Positioning / Automatic Vehicle Location / DVR / Route Optimization

CITY OF FARGO  
NORTH DAKOTA

The City of Fargo is requesting proposals for one (1) New AVL/GPS / DVR / Route Optimization system for recycling and refuse trucks. Sealed proposals will be received by the City of Fargo Auditor's Office at 225 4<sup>th</sup> Street North, Fargo, ND 58102, for the purpose of evaluating costs and operating parameters on a new AVL/GPS / DVR / Route Optimization system. Upon completion of the evaluation by the selection committee an order may be placed. Proposals will be received until **2:00 P.M. Central Standard Time October 12th, 2020**. For a copy of the fillable spreadsheets or answers to any technical questions regarding this RFP, email [JPickett@fargond.gov](mailto:JPickett@fargond.gov) or [DRheault@Fargond.gov](mailto:DRheault@Fargond.gov). Questions and answers from vendors will be shared with all vendors.

Proposals must be submitted on the forms and pursuant to the specifications furnished by the City of Fargo and in accordance with all terms and conditions contained therein.

All proposals will be on the basis of cash payment for the system provided and accepted as stipulated under the proposal documents and minimum specifications. Cash payment will be made within thirty (30) days of delivery and installation of the system. Copies of the proposal documents and specifications may be obtained at [www.FargoND.gov/bidpostings](http://www.FargoND.gov/bidpostings). All proposals must be sealed and plainly marked: **"Proposal for Global Positioning/Automatic Vehicle Location/DVR/Route Optimization"**.

The City is a governmental entity subject to the North Dakota public records law, Ch. 44-04. Therefore, any information submitted to the City in response to this RFP and any information shared as a result of entering into a contract with the City may, under certain circumstances, be open to the public upon request under the North Dakota public records law; unless the City determines in its sole discretion that such information is protected from mandatory disclosure under a specific exception to the North Dakota public records law. Any information submitted in response to this RFP for which vendor asserts confidential status should be clearly marked as confidential. Any inquiries regarding whether a certain type of information is considered confidential or exempt under the North Dakota public records law should be directed to [JPickett@fargond.gov](mailto:JPickett@fargond.gov) or [DRheault@fargond.gov](mailto:DRheault@fargond.gov)

The City of Fargo reserves the right to reject any and all proposals, to waive informalities in any proposal, to hold proposals under consideration for a period of not to exceed sixty (60) days from said date of opening of proposals, and to accept the proposal that is deemed to be in the best interest of the City of Fargo.

**CITY OF FARGO,  
FARGO, NORTH DAKOTA**

*Published September 30<sup>th</sup>, 2020 and October 7, 2020.*

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**CITY OF FARGO**  
**REQUEST FOR PROPOSALS**

**Scope and Specifications of the Proposal**

**SCOPE:**

This Request for Proposal (RFP) is being issued to select and engage a qualified and experienced vendor to provide and implement a Global Positioning System/Automatic Vehicle Locator (GPS/AVL), DVR and Route Optimization for the City of Fargo Solid Waste Department.

The City of Fargo is seeking proposals from experienced and qualified contractors to provide a real time vehicle information management system for tracking and monitoring the vehicle fleet.

**PROPOSAL SUBMITTED BY:**

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(Company Name)

---

(Address)

---

(City/State/Zip Code)

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(Typed Name of Person Submitting the Proposal)

---

(Phone #)

---

(Fax #)

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(Date of Proposal Submission)

**IMPORTANT DATES:**

RFP Posted and Advertised:	September 30 <sup>th</sup> and October 7th , 2020
Due Date:	October 12th, 2020 2:00 PM CST
Finalists and Demo's:	If needed, demos will be required within 1 week of proposal opening
Projected Award Date:	November, 2020

**SUBMITTAL REQUIREMENTS and CONTACT INFORMATION:** Two bound (one original) and one electronic copy of the proposal must be submitted on or before the due date above. Send proposals to the following address:

City of Fargo  
Auditor's Office  
Attn: Jill Pagel  
225 4<sup>th</sup> St N  
Fargo, ND 58102  
(701)241-8108

The electronic version should be in PDF format on a USB flash drive.

Proposal is to be signed only by an authorized representative of the proposer who has authority to enter into a contract with the city on behalf of the proposer, such as a President, Vice President, or other corporate officer.

BY SIGNING THIS PROPOSAL, THE PROPOSER VERIFIES THAT THEY HAVE READ AND WILL COMPLY WITH THE TERMS AND CONDITIONS OF SECTION 1.16 OF THIS PROPOSAL WITH RESPECT TO ANY INFORMATION CONTAINED IN THE PROPOSAL FOR WHICH PROPOSER ASSERTS ANY CLAIM OF CONFIDENTIALITY OR TRADE SECRETS.

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PROPOSER'S SIGNATURE

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PROPOSER'S TITLE

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PROPOSER'S PRINTED NAME

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COMPANY NAME

## 1 PROPOSAL DETAILS

- 1.1 Proposal Clarification Questions: After reviewing all proposals received in response to this RFP, the City may develop a list of clarification questions to be addressed by the Proposer. The City or its agent will send these questions to the Proposer for clarification. The Proposer shall provide a response within three (3) working days following the inquiry.
- 1.2 Proposal Format: Proposals shall be submitted by tab number as instructed below. The Proposer agrees and will comply with all provisions and specifications as stated in this RFP unless otherwise stated in the Exceptions section of this RFP. Any additional cost or factors to meet a specification or requirement must be noted in the Exceptions section. Failure to respond to these requirements may result in the proposal being considered non-responsive and rejected from consideration.

1 Tab 1 – Minimum Criteria

- Authorized officer’s signature
- Have adequate financial resources, or the ability to obtain such resources as required
- The ability to comply with the required or proposed delivery/completion schedule
- Have a satisfactory record of performance
- Have a satisfactory record of integrity and ethics
- Be otherwise qualified and eligible to receive an award

The City of Fargo may request documentation and other information sufficient to determine Proposer’s ability to meet these minimum criteria listed above.

2 Tab 2 – Executive Summary/Overview

- Written summary of understanding of the scope of work to be performed

3 Tab 3 – Proposer Qualifications (Section 4)

- Response to Proposer Qualifications Matrix

4 Tab 4 – Response to Project Scope

5 Tab 5 – Proposal Pricing (Section 7)

6 Tab 6 – Exceptions and Clarifications (Section 9)

7 Tab 7 – Proposer and Subcontractor Qualifications, Support Capabilities, and References (Section 10)

8 Tab 8 – Appendices

9 Tab 9 – Collateral Information (any additional information the proposer feels is useful to include)

- 1.3 Exceptions to the RFP: Proposers may find instances where they must take exception with certain requirements or specifications of the RFP. All exceptions shall be clearly identified in the **Exceptions and Clarifications Section** (Section 9), and written explanations shall include the scope of the

exceptions, the ramifications of the exceptions for the City, and a description of the advantage to be gained or disadvantages to be incurred by the City as a result of these exceptions.

- 1     **Proposers should note that certain sections within this RFP indicate that the terms contained within that section are required by the City and no exceptions are allowed for those terms. Where so indicated, any attempt to take exception to the terms within that section may disqualify the proposal from consideration.**
- 1.4   Request for Proposals: It is the sole responsibility of the Proposer to ensure that they have received and reviewed the entire Request for Proposals, including all addenda.
- 1.5   Proposer Contact/Questions about the RFP:
  - 1       Proposer communications shall be limited to contacts defined herein. Failure to comply with this provision may result in disqualification or evaluation penalty.
  - 2       It shall be the Proposer's responsibility to learn all aspects of the RFP requirements. Should any details necessary for a clear and comprehensive understanding be omitted or any error appear in the RFP documents, or should the Proposer note facts or conditions that in any way conflict with the letter or spirit of the RFP documents, it shall be the responsibility of the Proposer to obtain clarifications before submitting a proposal.
- 1.6   Addenda: Addenda are any graphic or written instruments issued by the City prior to the date for receipt of proposals that modify or interpret the proposal document by additions, deletions, clarifications, or corrections. Addenda will be emailed to all who are known by the City to have received proposal documents.
- 1.7   Questions: Proposers must submit written questions by e-mail to the contact listed on Page [iv] by the deadline for questions – also on Page [iv].
- 1.8   Information: No verbal or written information that is obtained other than through this RFP or its addenda shall be binding on the City. No proposer may rely on any representations by an agent or employee of the City except those contained within this RFP or any addenda issued by the City as described herein.
- 1.9   Descriptive Material: The City is not responsible for locating or securing any information that is not identified in the proposal. To ensure that sufficient information is available, Proposer must furnish as a part of this proposal all descriptive material necessary for the City to (1) determine whether the product offered meets the requirements of this RFP and (2) establish exactly what the Proposer proposes to furnish in terms of supplies, materials, and services.
- 1.10   Subcontractors: If your organization will use subcontractors, they must be identified under the References tab of your response.
- 1.11   Request for Additional Information: Prior to the final selection, Proposers may be required to submit additional information regarding the Proposer's qualifications and experience that the City may deem necessary to further evaluate the proposal's qualifications.
- 1.12   Right to Accept/Reject: The City reserves the right to reject any proposals that do not conform to the requirements of this RFP or all proposals. The City will select the winning proposal in accordance with the selection process and criteria outlined in this RFP and all applicable requirements of North Dakota law.
- 1.13   Denial of Reimbursement: The City will not reimburse Proposers nor have any liability for any costs associated with the preparation and submittal of any proposal, or for any travel and/or per diem costs that are incurred.
- 1.14   Gratuity Prohibition: Proposers are forbidden from offering any gratuities, favors, or anything of monetary value to any official, employee, or agent of the City for the purpose of directly or indirectly influencing consideration of this proposal.
- 1.15   Right of Withdrawal: A proposal may not be withdrawn before the expiration of sixty (60) days from the proposal due date. A proposal submitted in error may be withdrawn at the written request of the proposer before the due date for proposals. A withdrawn proposal may not be re-submitted or considered in the subsequent evaluation process.

**1.16 Rights to Submitted Material**

- 1** All proposals, responses, inquiries, or correspondence relating to or in reference to this RFP, and all reports, charts, and other documentation submitted by Proposers (other than materials properly submitted as and qualifying as trade secrets under North Dakota law) shall become the property of the City when received.
- 2** The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the Proposer of the conditions contained in this Request for Proposal.

**1.17 Award of a contract will be based on the system judged to be best suited to meet the needs of the City of Fargo Solid Waste Department, as determined by consideration of the following:**

- 1** Professional Qualifications – 10 points
- 2** Past involvement with similar projects – 30 points
- 3** Proposed Work Plan and training – 35 points
- 4** Fee Schedule – 25 points
- 5** Proposed Solution – 35 points

## **2 PROJECT SCOPE AND TIMELINE**

The contractor must be able to successfully implement a system that has 3 major components. The 3 components are AVL/GPS, DVR and an interface for routes in a Garmin “like” device and Route Optimization. The desired items are listed in this section and the service and performance section lists the requirements that the selected contractor will be expected to provide.

**2.01 AVL Requirements**

**1 GPS/AVL Requirements**

- a** Obtains accurate position/location information of vehicles
- b** Collects GPS/AVL location data at least every 15 seconds
- c** Capability of archiving and retrieving historical routes, travel paths, and activity of vehicles.
- d** Transfer of data via cellular network
- e** Data transfer
- f** GPS/AVL data can be obtained via web-based interface
- g** Creation and monitoring of vehicle location within a user defined or designated area (geo-fencing)
- h** Ability to establish geo-fenced areas for arrival/departure
- i** Vehicle identification (different symbol types)

**2 Data Collection**

- a** Location (latitude, longitude, elevation)
- b** Speed
- c** Direction
- d** Idling (set durations)
- e** The GPS/AVL system or equivalent shall collect equipment usage data (telemetry events) including and not limited to:
  - Ignition on/off
  - PTO
  - Arm movements (up and down)
  - g-force events



### 3 Technical Requirements

#### a Hardware and Software Requirements

- All hardware and software will be owned or leased by the City of Fargo.
- Other proposals will be reviewed and considered as options.
- All desktop software will be Microsoft Windows 10 compliant.
- All web-based application software will not require Microsoft Internet Explorer. It should run on a modern browser – Edge, Firefox or Chrome.
- All web-based application software will not require any 3<sup>rd</sup> party plugins-Silverlight, Java, Flash, etc.

#### b Data Collection.

- The GPS/AVL accuracy should be less than 5 meters.
- The GPS/AVL system shall collect data for each vehicle
- Must be able to display the image files produced by an ArcGIS Server REST service.
- Must be able to produce a REST service of the current AVL data that can be consumed by Esri's GeoEvent Server.
- Handheld units should demonstrate same capabilities

### 4 Reporting

- a Should have standard ad hoc reports (% of carts collected from a route)
- b Should be able to create custom reports
- c Reports should be in Excel, PDF and Word formats

## 2.2 DVR system

### 1 DVR Requirements

- a The DVR system shall be capable of recording stop location data that includes GPS date, time, location stamp, and address.
- b The DVR system shall be capable of documenting curbside views and providing GPS information (e.g., no setouts, extra garbage, accidents/incidents).
- c The system shall be capable of exporting (by authorized personnel only) individual files of video and single-frame photography and shall allow users to search a specific 'time frame' for a particular video segments.
- d The DVR system shall utilize SDHC cards or other **solid state** storage device(s) for in-vehicle storage of videos (capable of at least 12 continuous hours), still images, and audio. The data storage device(s) shall accommodate at least 12 hours' worth of data before the need to upload or transfer data for retention.
- e The system shall provide ruggedized DVR units proven to withstand the physical demands of a solid waste mobile vehicle collection environment.
- f The DVR system shall be capable of manually and automatically (by user-defined triggers) initiating the capture and retention of videos, and still images ('snap shots') on the vehicle's storage device(s). (Potential triggers include lift arm operation, hopper operation, emptying collected material, vehicle reverse, and driver/operator manual initiation.) The DVR system shall have the customizable flexibility and expandability to allow for future trigger changes and additions. Capability shall be provided for exporting individual files from the vehicle either manually (by authorized personnel only) or via broadband in order to be reviewed through the Work Management System. The DVR system shall also be capable of providing video surveillance.
- g Each vehicle shall be equipped with a G-force sensor that will, in the event of impact or crash, automatically trigger the capture and retention of video and in-cab audio on the vehicle's data

storage device(s). **The system solution shall be capable of being configured to automatically capture and retain, at a minimum, 15 seconds of video prior to a triggered crash/impact event, and shall also be capable of being configured to automatically capture and retain, at a minimum, 15 seconds of video after a triggered crash/impact event.**

- h The system solution shall have customizable flexibility that will allow for configuring multiple user-defined triggers (minimum of 8 required) that can automatically or manually initiate the capture and retention of videos and/or still images ('snap shots'), on the vehicle's storage device(s).

## 2 Data Collection

- a The City requires a minimum of seven (7) business days of data retention for all recorded videos, still images, and audio. (One business day is usually between 8 and 12 hours.)
- b The Contractor shall specify if retention of data is in the vehicle's storage device(s) or retained on a data server. If data server is proposed, please specify whether data retention will be application service provider (ASP) hosted or City-hosted (in-house). **(Note: The recording and storing of video, still image, and in-cab audio data will typically be done as a result of an automatically or manually triggered event.)**

## 2.3 Routing Optimization

### 1 Routing Optimization Requirements

- a Accurate representation of turn by turn mapping
- b Ability to transfer a route to another driver
- c 10" on dash display screen
- d Two-way communication between drivers and office personnel
- e Ability to show each collection point on the display screen both in map and tabular format
- f Ability to upload Esri feature classes or an ArcGIS Server REST service into the system
- g Ability to enter City of Fargo GIS data street centerlines feature class

## 2.4 Deliverables

- 1 Six (6) GPS/AVL units
- 2 Six (6) on dash display screens
- 3 Six (6) Generic actuator switch packages for commercial collection trucks.
- 4 Installation of all units
- 5 Training: Contractor to define in RFP
- 6 Warranty on hardware
- 7 Web based software or desk top software w/ licenses (if available)
- 8 DVR Systems installed on six (6) trucks with existing camera ( 7" Flat Screen RayView model RC-MC-70-LCD-4) integration.

### 3 PROPOSER QUALIFICATIONS

- 3.01** The following requirements are the minimal, summary description of the Global Positioning/Automatic Vehicle Location/Route Optimization. The proposal response shall include expanded explanation of all proposed products and services. Check "Yes" if the requirement is included "out of the box". If not included in the base system enter "yes" or "no" under Modification to indicate if the system can be modified to include the requirement and the cost to modify if the answer to Modification is "yes".

Qualifications	Yes / No	Modifications (Yes/No)	Cost of Modifications	Explanation
The system is to provide GPS, DVR, Route Optimization and web hosted system to improve on waste collection management and efficiencies.				
The system is capable of archiving and retrieving historical data of vehicle activity.				
The system is able to create Geofencing.				
The system collects data such as location, speed, direction and engine events (Ignition on/off).				
The system shall meet State and Federal Regulations relative to the operation of solid waste/recycling collection and management.				
The on dash units shall display customer information including, at a minimum location, address and service level. This information shall be automatically displayed in customer sequence as the route progresses.				

Qualifications	Yes / No	Modifications (Yes/No)	Cost of Modifications	Explanation
The system shall provide a "button" system that allows the driver to enter information such as contamination, failed to collect. The City of Fargo shall provide the pre-programmed codes.				
The system shall be able to track over 50,000 various locations of residential containers.				
The system can effectively share routes with other drivers in the instance of vehicle breakdowns or "help routes".				
All data/activity shall be transmitted via cell provider of City of Fargo's choice between the hosted Global Positioning/Automatic Vehicle Location and the mobile unit to provide "real time" tracking of route activity.				
All route activity information shall be available "real time" to customer service staff and provide those staff the ability to answer, reconcile, and verify customer inquiries with real-time information.				

Qualifications	Yes / No	Modifications (Yes/No)	Cost of Modifications	Explanation
The system shall track and report on route exception and policy exception information such as excessive idling, speeding, and unauthorized route activities.				
The vehicle mobile units shall provide for the entry of notes allowing the driver to note other route information, such as safety concerns or route improvements.				
The vehicle mobile units shall record each customer pickup as they occur. Mobile units must provide manual and automatic detection and recording, depending on which method of collection is used.				
The system shall guide drivers through each route utilizing a map on vehicle/mobile unit monitors with Automatic Vehicle Location (AVL) technology and the City of Fargo's street centerline file indicating current vehicle location and route to next customer in the collection sequence.				

Qualifications	Yes / No	Modifications (Yes/No)	Cost of Modifications	Explanation
The DVR system shall be capable of manually and automatically (by user-defined triggers) initiating the capture and retention of videos, and still images ('snap shots') on the vehicle's storage device(s). The DVR system shall also be capable of providing video surveillance.				
The DVR system shall utilize SDHC cards or other <b>solid state</b> storage device(s) for in-vehicle storage of videos (capable of at least 12 continuous hours), still images, and audio. The data storage device(s) shall accommodate at least 12 hours' worth of data before the need to upload or transfer data for retention.				
The system must be able to take route from a third party vendor and integrate its turn by turn directions. These directions should be displayed on the mobile units monitor.				
All route activity should be stored at the mobile unit in the event of a loss of network connectivity for upload when connectivity is restored.				

Qualifications	Yes / No	Modifications (Yes/No)	Cost of Modifications	Explanation
All desktop software should be Microsoft Windows 10				
All web-based application software runs on a modern browser (Edge, Firefox, Chrome) and does not require any 3 <sup>rd</sup> party plugins.				
The system should be able to upload and use City of Fargo GIS data feature class or REST services for purposes of mapping and identifying streets.				

#### 4 TRAINING PLAN

- 4.01 Contractor will define training plan for all City of Fargo personnel to be responsible on all vehicle based equipment and non-vehicle based hardware and/or software required for the system to meet functional requirements.

#### 5 PROPOSAL PRICING

- 5.01 Pricing for all services should be included in a single document with separate sections for:

Equipment Cost –per unit (this should be of each piece of equipment purchase, i.e., wire harness, AVL, handheld, etc.)

Software Cost – per license

Annual Operational and Maintenance Cost as well as the attached 1<sup>st</sup> – 5<sup>th</sup> year cost spreadsheet

Training Services

Travel and out-of-pocket expenses

Any other miscellaneous pricing

Additional unit prices

## **6 ALTERNATIVE PROPOSALS**

- 6.1 Vendors may propose alternative proposals for services or products they offer that would potentially be a benefit to the City of Fargo.
- 6.2 Please describe and provide pricing for any alternative proposals.

## **7 EXCEPTIONS AND CLARIFICATIONS**

- 7.1 Include all exceptions to the document below.

## **8 PROPOSER AND SUBCONTRACTOR QUALIFICATIONS, SUPPORT CAPABILITIES, AND REFERENCES**

### **8.1 Information about the Proposer**

- 1 Company name
- 2 Legal name (if different)
- 3 Years in business
- 4 Number of years selling services similar to this proposal
- 5 Contact person (and authorized representative to conduct agreement negotiations with the City, if different from contact person)
- 6 Full mailing address
- 7 Telephone number
- 8 Fax number
- 9 E-mail address
- 10 Number of full-time employees
- 11 Number of engineering (non-sales and non-administrative) employees company wide
- 12 Number of engineering (non-sales and non-administrative) employees in the Triangle

### **8.2 Subcontractors**

- 1 If more than one (1) Proposer or company is involved in the installation, training, and/or support after installation, there must be a Prime Contractor. This Prime Contractor assumes responsibility for all other entities involved.

a List Prime Contractor here: \_\_\_\_\_

- 2 Please list all subcontractors that are part of the proposal.

### **8.3 Experience and Existing Customers – How many similar engagements has the Proposer supported?**

- 1 In the area: \_\_\_\_\_
- 2 Statewide: \_\_\_\_\_



- 3            Nationwide: \_\_\_\_\_
- 8.4    All prospective Proposers must provide a minimum of three references using the reference format provided below. The references must be similar in scope and size to the City's project and must demonstrate following:
- 1            Name of Company:
  - 2            Type of Company:
  - 3            Primary Location:
  - 4            Services performed at reference company:
  - 5            Length of time services performed:
  - 6            Contact information:
  - 7            References will be contacted – please verify information before submitting. Please inform your contacts that a 30-60 minute call may be anticipated.
- 8.5    Please attach a resume for all named resources in your proposal.
- 1            Proposers are encouraged to identify the actual resources proposed to be used in this engagement.
  - 2            If that is not possible, please attach a resume of an individual with like experience and qualifications for all resource types.
- 8.6    The Proposer agrees to provide financial information to the City upon request, which shall include, but not be limited to, audited financial statements.