REQUEST FOR INFORMATION (RFI)
2016-165

KITSAP COUNTY DEPARTMENT OF PUBLIC WORKS
NOTICE TO CONSULTANTS FOR ASSET MANAGEMENT SOFTWARE

RESPONSE DEADLINE: Tuesday October 25, 2016 @ 3:00 p.m.

Kitsap County Department of Public Works is soliciting information from qualified vendors relating to Enterprise Asset Management Software (EAMS) to serve our Road Maintenance, Traffic, Stormwater and Sewer Utility divisions.

The purpose of this Request for Information (RFI) is to gather information regarding possible solutions that address the needs discussed within this RFI. This is not a solicitation to purchase services and/or goods. No contract will be awarded based on the responses to this RFI. However, depending upon knowledge gained from the response to this RFI, it is Kitsap County's intent to prepare and issue a Request for Proposals (RFP) that will meet the requirements of the Department. Responding to this RFI is not a pre-requisite to submitting a proposal for any subsequent procurement.

PROJECT DESCRIPTION

Kitsap County Department of Public Works is responsible for maintenance, operation, preservation and improvement of 915 miles of roadway, 38 bridges, 1,000 miles of roadside ditch, 225 miles of stormwater piping, 10,000 catch basins, 335 stormwater ponds, 4 wastewater treatment plants, 58 lift stations, 189 miles of gravity and force main sewer piping, and various other roadway appurtenances, such as traffic signals, signs, guardrail and sidewalk. There are four separate divisions within Public Works that are responsible for management of the assets listed above, each with separate and distinct management, administrative and maintenance/operation personnel.

Currently, Kitsap County utilizes a myriad of data management methods within the various Public Works divisions to manage our roadway and utility assets. Management of these disparate data sources, in the absence of a unified environment, has resulted in redundant, incongruent and incomplete information, increased operational cost, and hampers our ability to make justified, informed, and critical decisions.

EAMS REQUIREMENTS

Maintenance Management System (MMS)

Current State
As stated previously, asset management data is stored in various formats within Public Works Divisions.

Requirements
Essential functions desired include an inventory of all assets in data and GIS formats, resource planning and scheduling, budgeting, and reporting, including the ability to evaluate work performed, personnel and equipment utilized, and materials incorporated. The MMS should generate and track work activity based on labor rates, equipment costs, material costs, and defined road log numbers, work codes, work orders, part numbers, etc. Resource accounting within MMS should include the ability to track employee names, employee location, pay rates, and timesheet data for the Human Resources and Accounting Divisions. The system should provide managers with information sufficient to make timely decisions regarding conditions of assets, performance and effectiveness of work, and budgetary expenditures. The system shall have the ability to integrate with other management systems like FASTER, CRM, Mobility, Bridgeworks.net, JD Edwards, Northstar, KRONOS, and other existing systems, as applicable.

Pavement Management System (PMS)

Current State
Kitsap County currently utilizes the PMS module within Mobility, the Washington State County Administration Board (CRAB) database for housing County Road Log information.

Requirements
A PMS within your product must be compatible with State of Washington and CRAB requirements for rating and reporting on roadway pavement conditions. Ideally, a PMS module within an EAMS would integrate a GIS component to allow users to easily perform spatial analysis on the pavement data, a systematic way to handle data collection and reporting requirements, sophisticated predictive analysis tools to determine deterioration rates and to predict pavement performance, and system interfaces which will allow the PMS to access data stored in other Department systems, such as Mobility.

Bridge Maintenance System (BMS)

Current
Kitsap County utilizes Bridgeworks.net, a WSDOT managed database, to track inspection, condition, and maintenance history for our bridge inventory.

Requirements

Integration between Bridgeworks.net and EAMS is desirable, including the ability to comply with record keeping and reporting requirements. Essential BMS functions desired within an EAMS include; the capability to collect, maintain, and report bridge condition data in accordance with the National Bridge Inspection Standards; the capability to schedule inspections, track measurements, and track inventory; the capability to perform custom queries, by road district, road log, NBI data points, number elements and inspection reports by date; and the capability to scan and attach documents, including drawings, sketches, maps, photographs, notes, and other important documents.

Traffic Systems

Current State

Traffic appurtenances within the roadway system are currently tracked through various Access databases and spreadsheets to meet maintenance and reporting needs. Appurtenances tracked include traffic signal systems, traffic cameras, speed/radar instruments, roadway striping, road sign inventory, street lighting, traffic calming features, guardrail, sidewalks, and also include traffic volumes and collision history.

Requirements

An EAMS would need to address the appurtenances described above, including; the ability to track supplier information (cost and warranty); to generate and track work activity for routine, preventive maintenance, emergency repairs and pre-planned work; the ability to track asset type, model, vendor, installation year; the ability to track collision history and before/after reports associated with an asset, including threshold alerts based on predefined criteria; the ability to attach resolutions and ordinances to an asset; the ability to link “ballbank” to sign data.

Sewer Utility Infrastructure Management

Current State

The Sewer Utility is currently implementing a Computerized Maintenance Management System (CMMS), ERPortal, for managing all electrical and mechanical equipment. Piping systems assets are currently tracked in Cartegraph.

Requirements

The EAMS should have the ability to merge equipment asset data with piping asset data, and a streamlined means for transfer of current data to a new EAMS database without a high degree of data manipulation. Similar asset tracking needs as stated above with the ability to access asset video or other asset documentation in the field. EAMS should provide asset financial and replacement analyses for planning and budgeting purposes. It should be able to integrate and

manage data from related asset processes including but not limited to permitting, inspecting, construction, maintenance, and complaint tracking.

Stormwater Systems

Current State

Stormwater assets located in unincorporated Kitsap County are currently tracked in GIS, Cartegraph and spreadsheets to meet maintenance and reporting needs. Assets include pipes, culverts, manholes, outfalls, basins, pumps, and auxiliary equipment. Historical and financial information is also tracked for year end reporting purposes.

Requirements

The EAMS should have the ability to view and inspect assets, assign work, look up requests, close work orders and attach images using a mobile device. Other attachments should be viewable to users in the field (CCTV videos, asbuilt plans etc). The system needs to be able to work offline when a 4G connection isn't available and update automatically when the user returns to an area with service. The system should also have the ability to geolocate a user when in the field. Additionally, EAMS needs to be integrated with ArcGIS to provide a more efficient technological means for serving the public of Kitsap County. The system should have the ability to create scheduled, repeating work orders for inspections and preventative maintenance. Users should be able to filter and query all fields in the system for quick reporting in addition to having customizable reports.

Geographic Information System (GIS)

Current State

Currently, integration between existing data management methods and the Geographic Information System (GIS) is limited. The Stormwater and Sewer Utilities currently utilize GIS to track their inventories, but the Road Maintenance and Traffic Divisions do not. GIS integration within an EAMS is important to all Divisions within Kitsap County. The Kitsap County GIS system utilizes the ESRI technology stack. The primary components of the GIS system are: multiple ArcGIS server Standard Enterprise installations, SDE Geodatabase, ArcGIS Online Web GIS. The production Geodatabase utilizes Oracle 11g with plans to move to Microsoft SQL Server within the next 2 years. Kitsap County GIS provides data to its customers using ArcGIS server web services, ArcGIS Online web services, ArcGIS Desktop clients, and ArcGIS Web applications based upon the JavaScript API.

Functional and System Requirements

- Integration with existing geodatabase and referencing systems.

- Integration of data between various existing databases so that data can be viewed by staff in other divisions without having to log into another system.
- Capture and conversion of historical data.
- Interface with existing systems prior to new system implementation.
- Ability to present various report or query information in GIS.
- Ability to create “maps” based on pre-defined, or filtered criteria.
- Ability to integrate with telematics technology, including viewing of real time locations within GIS.
- Integration with mobile devices for both Apple and Android based products.
- Real time data updates, preferably Cloud storage.

VENDOR RESPONSES

Company Background
Vendors shall provide the following company background information:

1. Size
2. Location
3. Number of years in business
4. Number of employees
5. Peer group installations for comparison
6. Installation references with contact information
7. Support hours of operation and methods used (phone, chat, web etc)

Executive Summary
Vendors shall provide an executive summary written in non-technical language to summarize the overall capacity and recommended approaches for an EAMS, based on the needs described in this RFI.

System Functionality
Vendors should describe anticipated implementation strategies for an EAMS meeting the Department’s needs, including a recommended rollout strategy and potential project plan indicating timeframes for phases, as well as the entire project.

Recommended Solution
Vendors should provide detailed information on their proposed solution(s). The information should include recommendations taking into consideration the Department’s existing processes, data management methods, and system requirements. Describe how your solution would satisfy the Department’s EAMS needs based on provided background information, requirements, current processes and recommended implementation strategies.

Cost

Vendors should respond with typical costs for similar implementations. Typical costs should be broken down for software procurement, implementation, maintenance and support, and other system and business costs (i.e., hardware, application software licenses -initial and on-going, third party licenses, etc.). If the proposed solutions are modular in nature, please provide typical costs for each module offered. Describe any suggestions for opportunities to reduce costs for this project.

Vendor Questions
Vendors should specifically respond to each of the following questions:

1. Identify which specific functional requirements, described in this RFI, can be addressed by your product. Explicitly flag any requirements that cannot be met or that would be cost prohibitive.

2. Describe system functionalities that your product provides that Kitsap County has not listed, but should be a consideration.

3. Describe how your system integrates historic data from management systems operated prior to the launch of the system (i.e., is there a data migration process to move data to the new system or is the recommendation to leave the previous system operational to support data integration?) and describe the anticipated complexity of this effort.

4. Describe architecture used to develop and host your application. Describe programming languages, application layer, database layer, web services layer.

5. Describe how your system leverages GIS to satisfy requirements for work assignment and completion, personnel and team assignment, equipment assignment and scheduling, and asset maintenance scheduling.

6. Describe your company's approach to software revisions, updates and patching.

7. What is your change management process for on-premise vs hosted (cloud)?

8. For on-premise solution describe any limitations or negative implications from utilizing vmware virtualization for server resources.

9. Assuming cloud solution, describe your system methods to acquire/download County data for analysis and reporting.

10. Describe data conversion issues with your product typically encountered with installation, man-hours to complete, and database/data resolution based on prior system conversions.

11. Describe staffing plan to implement, train, support and administrate your proposed solution. Identify key roles and responsibilities. Include both vendor and County resources.

12. Describe your system methods used to attach and store media files associated with work activity.

13. Describe the security architecture used by your system, including user account access control, log in and password requirements, and protection of any connected SCADA systems.

14. Describe your systems capability to utilize mobile devices for data creation, attribute read and update activities in connected and disconnected environments.

15. Describe how your system tracks labor hours, equipment charges and materials incorporated for a specific asset, work code, work order and roadway.

16. Describe how your system supports decisions relating to defined level of service criteria for each asset inventory feature?

17. Does your system include 24/7 customer service operation to minimize downtime. This system will be considered critical for County services and response.

18. How are customers managed within your system? Can they be classified internal? External?

19. How are requests for service managed within your system? How configurable is this functionality? How are duplicate requests managed?

20. Is your product scalable (i.e. if you have multiple modules/components, can they be used independently)?

21. To what extent is your solution customizable and what level of skill and training is required to do so?

22. Does your solution allow for Map Services to be hosted either through AGOL service or locally?

23. Does your solution provide a map interface with the capabilities to view assets, search, pan, zoom etc., and access asset attributes? Other capabilities?

24. How does your solution interface support associating assets (single or multiple) with specific work activities?

25. How does your system publish work activities for ArcGIS consumption?

This RFI is designed to provide vendors with the information necessary for the preparation of informative response proposals. This RFI process is for Kitsap County's benefit and is intended to provide information to facilitate the future selection of goods and services. The RFI is not intended to be comprehensive and each vendor is responsible for determining detail of response. Vendors may be requested to demonstrate their EAMS product at a Kitsap County facility.

Kitsap County assumes no financial responsibility in connection with the vendors' costs incurred in the preparation and submission of the RFI packets, nor shall it constitute a commitment, in any way. Kitsap County reserves the right to cancel this RFI if it is deemed in the best interest of the County to do so.

Kitsap County will treat all information submitted by a vendor as public information unless the vendor properly requests that the information be treated as confidential at the time of submitting the response. Any requests for confidential treatment of information must be stated within the executive summary in the vendor's RFI response. The request must also include the name, address, and telephone number of the person authorized by the vendor to respond to any inquiries concerning the confidential status of the materials. Each page shall be marked as containing confidential information and must be clearly identifiable to the reader.

Please submit one (1) original and one (1) copy by **TUESDAY, OCTOBER 25, 2016 3:00 PM**. Faxes, emailed and late response will not be accepted**.** Information may be delivered to the addresses below:

By Mail
Colby Wattling
Kitsap County Department of Administrative Services
Purchasing Office
614 Division Street MS-7
Port Orchard, WA 98366

OR

Express, Courier, or Hand delivery
Colby Wattling
Kitsap County Department of Administrative Services
Purchasing Office – Fourth Floor
619 Division Street
Port Orchard, WA 98366

Any questions regarding this RFI should be directed to Jacques Dean, Road Superintendent, 360-337-4671, or jdean@co.kitsap.wa.us

Persons with disabilities may request that this information be prepared and supplied in alternate forms by calling collect 360-337-5777 or TTY 360-337-5455.

The recipient, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all consultants that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit qualifications in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

Appendix A

Placing a "Y" in the Core column indicates that the functions are contained in the core system. Placing a "Y" in the Custom column indicates that a custom modification will be required. Placing a name in the "3rd Party" column indicates that the function(s) will be provided by the 3rd Party software named.			
Asset Information / Reporting / Accessibility of Information	**Core**	**Custom**	**Named 3rd party**
Ability to correlate various tracking numbers to assets, (i.e. work orders, work codes, part numbers, employee numbers, equipment numbers, road log number, bridge name and number, condition ratings, etc.)			
Ability to track labor, equipment and materials (LEM) utilized towards an asset(s), on a daily basis.			
Ability to generate employee timecards.			
Ability to track employee names, employee location, pay rates.			
Ability to query and filter all fields within the system for quick reporting.			
Ability to develop customized reports and queries.			
Ability to generate work plans and budgets, and to produce reports of budgetary expenditures.			
Ability to provide asset financial and replacement analyses for planning and budgeting purposes.			
Ability to manage assets from multiple divisions (i.e. Traffic, Stormwater, Sewer, and Road Maintenance)			
Ability to restrict access, or permissions based on user roles and responsibilities.			
Ability to run reports based on highlighted, or "heat spots" on map			
Ability to track asset type, model, vendor, warranties, installation year.			
Ability to run reports that link cost (LEM) to unit of measure for work completed			
Ability to track and manage facilities maintenance.			
Ability to display work order activities on a map.			
Ability to manage material inventories at various locations.			
Ability to develop thresholds trigger alerts (i.e. vehicle collisions)			
Ability to link as-built drawings, photos, videos, permit information, resolutions/ordinances to assets			
Ability to generate before/after vehicle collision reports			
Ability to correlate traffic "ballbank" information to roadway signage data			

Ability to automatically notify and schedule when violation letters need to be generated (i.e. stormwater discharge, sewer connections).			
Ability to transfer existing data to new EAMS without high degree of data manipulation.			
Scheduling	**Core**	**Custom**	**Named 3rd party**
Ability to create annual maintenance schedules based on asset condition and defined levels of service.			
Ability to create daily dispatch schedules for multiple crews, including LEM.			
Ability to customize schedules based on predetermined routine or prioritized maintenance intervals			
Mapping/GIS	**Core**	**Custom**	**Named 3rd party**
Ability to display asset data in GIS, including the ability to overlay various map layers from each division.			
Real time display of work being performed (i.e. Telematics, GPS locators on vehicles)			
Perform GIS analysis (i.e. heat maps, proximity analysis, field calculations, buffering, etc.)			
Ability to present various report or query information in GIS.			
Ability to create maps based on pre-defined or filtered criteria (at user level).			
Provide map symbolizing for various assets			
GPS data collection for all assets			
Collision mitigation tied to work orders on map			
Show specific symbols tied to collision type on map			
Include sewer permits on map			
Creation of accessible and user friendly maps for public viewing (i.e. Average Daily Traffic, Level of Service, Sewer permits, etc.)			
Other Interfaces	**Core**	**Custom**	**Named 3rd party**
Reliable, easy way to connect TV van inspections or stormwater and sewer assets to main database system			
Ability to interface with Mobility.			
Ability to interface with MS CRM and to tie CRMs to a location/asset for dispatch.			
Ability to manage internal accounting and billing			
Ability to interface with payroll systems			
Ability to interface with inventory system (materials and equipment)			
Ability to interface with a Pavement Management System.			
Ability to interface with Bridgeworks.net			

Field Devices	**Core**	**Custom**	**Named 3rd party**
Ability to utilize mobile devices to download and upload data while in the field.			
Ability to integrate with mobile devices for both Apple and Android based products.			
Real time updates when entering data with tablets in the field.			
Voice actuated recognition data entry (Safety-prevents typing while driving)			
System accepts GPS device for inspectors			
Ability to access asset video or other asset documentation in the field.			
Ability to work off-line when 4G connection is not available, with automatic update when back in service.			
Ability to geo-locate a user in the field.			