Request for Proposals (RFP)
Addendum No. 2

GIS-Based Asset Management Software

Submittals Due:
Thursday, 10/20/2022

10-5-2022

CITY OF MOORHEAD

REQUEST FOR PROPOSALS

ADDENDUM NO. 2

GIS-Based Asset Management Software

In accordance with Section II.g. of the RFP, the City is issuing Addendum No. 2.

I. Responses to Questions

a. This addendum includes responses to select questions.
b. The City will not respond to additional questions unless deemed essential to the objectives of the RFP.

Section 1: General Requirements

1. How many assets (vertical and Linear) are managed in the current system*? Approximate values of select key assets are listed below. This list does not encompass all asset types that will need to be managed through vendor platform including assets that are currently managed in a system as well as assets that are not included in an existing system.*
   a. *Storm sewer: 148 Miles of Pipe, 52 Lift Stations, 3,886 Manholes, 500 inlets, 580 outlets, 5,900 catch basins*
   b. *Sanitary sewer: 163 Miles of Pipe, 55 Lift Stations, 3,289 Manholes*
   c. *Wastewater Treatment Facility, Sanitary & Storm Lift Stations: approximately 750 individual pieces of stationary equipment (pumps, motors, blowers, compressors, etc.).*
   d. *Transportation: 250 miles of roadway, 90 miles of trails and paths*
   e. *Traffic: 9,300 signs, 110 signal cabinets, 280 signal poles*
   f. *Parks: 55 with over 1,000 acres of land maintained between parks, athletic complexes, storm water ponds and conveyance, and rights of way.*
   g. *Facilities: 26 structures encompassing 497,916 SF of floor area*
   h. *Electric: 28 miles of transmission line, 349 miles of distribution line, 3,552 transformers, 135 switches, 233 junction boxes, 368 surface structures, 4612 poles, 5,287 lights (City & security), 22,301 meters*
   i. *Water: 253 miles of watermain, 2,088 fire hydrants, 4,818 valves, 12,833 curb stops, 13,177 meters*
   j. *Approximately 500 mobile assets*
2. How many asset types are included/or will be included in the current/new system? *Refer to the RFP and response to question 1.*
3. What is the size of the total portfolio of City owned assets to be managed in terms of facilities, Parks, Miles of Road, Stormwater systems, Number of Buildings, floors, Sq. Ft. of space…etc.? *See the response to question 1.*
4. Does the City maintain As-Built drawings for the vertical assets?
   a. Are the drawings Updated and Current in the DWG Format? *Facilities records are archived copies of originals for permit/construction drawings, mostly in a pdf format.*
   b. Are the current AutoCAD / DWG drawings layers standardized and consistent throughout the drawings to show space and asset locations? *Related to facilities, no.*
   c. Are the drawings polylined to facilitate space management? *Related to facilities, no.*
   d. Is there any requirement to use and maintain these drawings as a part of the Work Order? *No*
5. What is the expected user base for this system? Can you define the user base in terms of access requirements? *The user base is anticipated to be between 100 and 200 employees in total (roughly one-half City, one-half MPS) with varying access needs. The structure for system administrators and user groups and access needs will be developed in consultation with the*

selected vendor. The City anticipates up to 20 users will be "power" users with wide system access. MPS anticipates a similar number.

6. We understand that the City is interested in an unlimited user licensing option, but can the City provide any details related to the estimated number of users for both office and mobile for the purpose of training? *The City anticipates focused training from the vendor for up to approximately 20 "power" users. MPS anticipates approximately the same. The City and MPS will lead training for other users appropriate to the level of access and use.*
7. Does the City prefer a cloud-based or locally hosted solution? *Preference is for application to be accessible via the web, not a desktop app. Data likely to be locally hosted.*
8. As this solution is for WACS with OFSC, and this uses Oracle cloud (OCI) which is tested and proven. Does city still need SSO integration with Azure? *This is for ease of administration so SSO with Azure is still preferred.*
9. When we build CMMS systems for customers, it often includes reporting requirements to be considered, such as State EPA emissions, NFPA 70E/B, NETA, etc. Is this a desired function? *No.*
10. How is the data to be gathered, entered and validated; that is, nameplate information, relay settings, BOM on water work pumps, etc. Would field personnel be needed to collect data? Is this being considered/requested? If so, do you have an idea of how many devices there are? (This should be within your existing GIS system) *For some equipment, this data exists within a current database. For other equipment, this data will need to be collected. City/MPS staff will collect any necessary information. See also the response to question 1.*
11. Please provide the technical requirements (Like security, scalability, Reliability, Availability & Serviceability, Data integrity, Cloud & Managed Services etc.). *To be developed in consultation with the selected vendor.*
12. Does the City of Moorhead have an existing reporting tool that is being used, such as PowerBI, Tableau, Oracle Analytics Cloud, etc. or does one need to be included in the proposal? *The City does not have an existing reporting tool. A reporting tool is desired and should be included in the proposal.*

Section 2: GIS and Asset Data Requirements

13. Although an unlimited number of users is requested, there is also the requirement to allow users to log on to system using ArcGIS portal credentials. Is the City/MPS licensed with unlimited users through Esri? And if not, should we include this pricing within our proposal? *All ESRI licensing will be managed by the City and MPS and need not be priced in the proposal.*
14. Regarding 2.2, would the City be open to connecting to AGOL for user authentication, or is ArcGIS Portal integration required? *The preference is Portal Integration as our production GIS is served up through it internally. Proposals will be scored accordingly.*
15. Point 2.2- Allows users to log on to System using ArcGIS portal credentials. – Need more information on this point. *The City/MPS desire single sign-on capabilities.*
16. Point 2.3- Please share the existing format currently being used in the City's and MPS GIS enterprise. *The City is currently running ArcGIS Enterprise 10.6.1 and evaluating upgrade options.*
17. Would the City require real-time bi-directional feed with ArcGIS? *Yes. See the response to question 18.*

18. Page 9. Requirement 2.3: What does it mean by "not require converting to a different format" *GIS is and will be the asset system of record for the City and MPS. The new solution will not convert GIS data to other formats to be consumed in a vendor platform.*

Section 3: Public Records Management /Citizen Complaints/Future Expansion

19. Page 10. Requirements 3.1: Do you want the ability for the citizen to log in via a 311 system? *Yes, but this functionality is not anticipated for implementation near-term.*

20. Point 3.1-Is there any existing customer tool is used to tracks/log customer or citizen complaints? *Yes, both PubWorks and Tree Plotter have this functionality.*

21. Point 3.4- Please provide more information about current database referred in this point and also provide additional information on the workflow of the use case *The City and MPS have databases that include property owners and customers. These databases are envisioned to serve as the source data to populate property owner/customer information for service requests.*

Section 4: Work Management

22. A "clickable" ability for roofs and HVAC units would be a nominal adder (roof condition, filter reminders, etc.). Is this a desire to have? *Yes*

Section 6: Asset Management and Risk Analysis

23. Point 6.2- Please provide what type of risk analyses, the city and MPS are looking for. Are there any predefined objectives/parameters with respect to assets/infrastructure? *Risk analyses will vary by City/MPS functional group and will be specific to asset/infrastructure type. The City seeks to develop asset risk analyses based on an assessment of available asset parameters that can be used to represent the probability of a failure and the consequence of failure. The desired solution will allow City staff to define which asset parameters are utilized and how they may be combined to define probability and/or consequence of failure. Risk ratings and/or rankings will be developed from the probability and consequence data for individual assets within each asset type. These analyses are not expected to be fully developed at or with implementation.*

24. Point 6.7- Please provide more information as what data are we planning to export and from which applications. *The City and MPS are seeking the ability to export any and all data.*

Section 7: Pavement Management System Modeling

25. Point 7.5- Please provide more information on how segments are divided/identified according to the assets. *Segments are divided into sections by the "street name" followed by a "to" and "from" designation (example: Center Avenue from 4th to 5th St S). Each segment is identified with a unique GISID.*
26. Point 7.7- Please provide more information on what type of analysis is required. *The City is seeking the ability to conduct various analyses on user-defined networks (for example, networks defined by street functional classification, pavement type, etc).*
27. Point 7.8- Please provide more information on pavement performance curves, rehabilitation curves. *See the RFP, specifically 7.9. These curves may be derived from technical literature and/or developed separately by City staff.*

Section 8: Fleet Management

28. Point 8.5- please provide more information on the workflow. *Vehicle mileage and gallons of fuel are tracked in Gas Boy. The City is interested in interfacing with the new system.*

Section 9: Facilities Management

29. Could you provide an example of the data you wish to capture and analyze for "Environmental & energy performance analysis" (Page 13. Requirement 9.3) and "Ability to perform environmental performance analysis" (Page 16, Requirement 10.23)? *The goal for the new system is to either be compatible and read, or replace, the existing Builder program in tracking age and condition of facilities and their systems and also read, or replace, the B3 Benchmarking program that tracks electrical, water and gas use*
30. Are there existing workflows that define business processes related to the maintenance of various asset types? *No*
31. Is the City currently using an energy management solution? If so, please provide system currently in use. *A program through Missouri River Energy Services called Bright Energy Solutions is used to help track renewable energy projects. The City and MPS are not using an energy management solution for City/MPS facilities.*
32. Point 9.5- Any specific requirements regarding vendor management. *The City is seeking the ability to track bids, contracts and project documentation.*
33. Point 9.7- Document management – Does City has any existing document management tool in place (Sharepoint, SVN etc) – *Laserfiche is the official document repository. The City also has Sharepoint on premises and is migrating to Microsoft 365 in 2023.*

Section 10: Electric, Fiber, & Water Management

34. Could you provide an example of the data you wish to capture and analyze for "Environmental & energy performance analysis" (Page 13. Requirement 9.3) and "Ability to perform environmental performance analysis" (Page 16, Requirement 10.23)? *The goal for the new system is to either be compatible and read, or replace, the existing Builder program in tracking age and condition of facilities and their systems and also read, or replace, the B3 Benchmarking program that tracks electrical, water and gas use*

Section 11: Integration/Migration – City Systems

35. What needs to be converted/migrated from Builder? (and is this e-builder?) *Builder is a program used by the Department of Defense to perform a building condition assessment (performance-based) and facility condition assessment (financially-based). All data needs to be migrated. It is not e-builder.*
    a. What is the back-end database? *MS SQL Server 2016*
36. What needs to be converted/migrated from PubWorks? *PubWorks is a cloud-based system and all existing data and history for fleet vehicles and customer requests needs to migrate into the new system.*
    b. Which functional areas (Water, Sewer, Streets, etc) have existing historical data in the PubWorks system? *Fleet vehicles, sanitation, and park maintenance.*
    a. What type of historical data (work orders, preventive maintenance, asset inspections, etc) are to be converted from PubWorks? *Work orders, preventative maintenance, asset inspections, and service requests*
    b. What is the back-end database? *MS SQL Server 2016*

37. What needs to be converted/migrated from ICON 7/Goodpointe Technology? *All raw data related to pavement condition from the past approximately seven years including the measured pavement distresses for each road section. The new system must be capable of applying ASTM standards to determine the pavement condition index (PCI) using the distress data. Ideally, the calculated PCIs from ICON could be transferred over without a recalculation and new PCIs would be determined using the method mentioned above. Other important information to be transferred includes the entire street project history (Year 1900 to present) including, but not limited to, project number, pavement survey date(s), street project strategy types, functional classification, road segment lengths and widths, etc.*

    a. What is the back-end database? *SQL Server (Unknown Version, hosted off site)*

38. What needs to be converted/migrated from MaintenanceView? *Equipment ID, equipment nameplate data, preventive maintenance schedule and maintenance history to the extent available.*

    a. What is the back-end database? *MS SQL Server 2016*

39. Can you elaborate on the required integrations of Tree Plotter:

    a. What data points need to be integrated? *Points for individual trees, athletic field layouts and extent of buckthorn infestation.*

    b. To what extent is the City looking to use data from Tree Plotter? *The intention is to give all GIS users the ability to view data from Tree Plotter in the asset management program. In AutoCAD speak, the Tree Plotter data becomes a viewable "layer" of the GIS.*

    c. Is the integration Uni-directional or Bi-directional? *Bi-directional. Service requests generated in the asset management system would be visible in Tree Plotter and allow users to close work orders from Tree Plotter.*

    d. Does the integration require real-time data transfer or batch import? *Real-time or daily batch import.*

    e. Is there a Rest API available for the integration? *Inventory API*

    f. What is the version of Tree Plotter that is being used? *It is web-based and continuously updated.*

    g. Is the city open to replacing Tree Plotter? *The preference is to retain tree plotter and integrate with the new asset management system, but the City is open to seeing other options if the new solution meets all current workflows in Tree Plotter.*

40. Can you elaborate on the required integrations of BS&A:

    a. What data points need to be integrated? *Employee pay rates. Potential integration of vendor invoices.*

    b. Is the integration Uni-directional or Bi-directional? *Uni-directional from BS&A*

    c. Does the integration require real-time data transfer or batch imports? *Does not need to be real time; batch imports are acceptable.*

    d. Is there a Rest API available for the integration? *No*

    e. What is the version of BS&A that is being used? *BS&A is on a monthly release cycle and the City is and will likely remain up-to-date.*

41. What is the form and format of existing asset data to be migrated into the new platform (Work Order information, photos, related data)? *Widely varied. Asset data that is currently tracked are in various systems and various formats. The goal of this effort is to integrate all of these assets (and many more that are currently not tracked in a system) into one uniform system.*
42. What City business systems would you need the new Asset Management system to integrate with? Are the integrations bi-directional? *Refer to RFP for a list of business systems that will require integration. Integration directionality will be determined during implementation*.
43. What is the current Inventory Management system for supporting Work Orders? *None*
44. Is there any need to integrate the inventory system? *N/A*
45. How many warehouses are used to store and manage the inventory? *Multiple smaller locations tied to specific functions.*
46. What is the expected (existing) volume of ad-hoc and PM work orders? *Public Works creates approximately 2,400 service requests annually not including approximately 500 work orders created by Forestry and several thousand by the mechanics in the fleet shop. Engineering (primarily Wastewater and Stormwater functions) generates up to 100 preventive maintenance work orders daily and 10 corrective maintenance work orders weekly.*
47. Does the City plan to implement new or existing workflows? *Workflows will be developed in consultation with the selected vendor.*
48. Does the City have an existing library of PM procedures to be loaded into the system? Are they available for all asset classes? *An electronic library of PM procedures does not exist.*
49. Will data surrounding the assets be available to migrate/integrate? This would include, but not limited to, 1-lines, coordination studies, pH reports, etc *Some, but not all, data may be available for integration and varies among departments/functions.*

Section 12: Integration/Migration – MPS Systems

50. Can you elaborate on the required integrations of Harris Infinity CIS:
    a. What data points need to be integrated? *Customer data, meter data, and service order information*
    b. Is the integration Uni-directional or Bi-directional? *Primarily data to be pulled from Harris, with some data being pulled and sent back to Harris, i.e. service order and meter information. Bi-directional.*
    c. What information is the City looking to gather from integrating with Harris Infinity? Is the City looking to use that information to auto populate service request information? *The intent with the integration with Harris Infinity would be for service order requests and access to customer address and parcel information for other business functions within the City. The idea behind service order requests is to complete the current service order workflow process in a digital environment…from start to finish. MPS is not looking necessarily at creating new service orders from the field, but rather provide a method for receiving service orders digitally, (in a queue, on a map), allowing the workers to receive the request, complete the work, submit for review and approval, etc.*

       Integrating GIS with Harris Infinity provides staff with near real-time customer address and parcel information. Providing a secure way to VIEW this information in a GIS format is key.

d. Does the integration require real-time data transfer or batch imports? *Real-time or near real-time*

e. Is there a Rest API available for the integration? *No*

f. What is the version of Harris Infinity that is being used? *V3*

51. Can you elaborate on the required integrations of MS Great Plains:

a. What data points need to be integrated? *Materials and other assets*

b. Is the integration Uni-directional or Bi-directional? *Uni-directional, no plan at this time to incorporate real-time inventory / supply tracking.*

c. Does the integration require real-time data transfer or batch imports? *Batch import of available materials and other assets to pick from.*

d. Is there a Rest API available for the integration? *No*

e. What is the version of MS Great Plains that is being used? *V18.4.1384*

Miscellaneous

52. Did the City and/or MPS write the RFP on their own, or did they use a consultant? If a consultant was involved, will they be involved in the decision-making process? *The City did not use a consultant to develop the RFP and a consultant will not be used in the selection process.*

53. Has the City and/or MPS visited or spoken with surrounding communities to see how they are using Asset Management software? *Yes*

54. What is the anticipated project start date and desired go-live date for the solution? *The desired project start date is the second quarter of 2023 with select to-be-determined functions in a phased implementation developed in consultation with the selected vendor.*

55. How many work groups do you have? *Two City departments (Public Works, Engineering) and MPS (Electric, Water) with multiple groups within each department. Specific user groups to be developed in consultation with the selected vendor.*

a. Who is a priority to start in the project first? *A phased implementation is anticipated and will be developed in consultation with the selected vendor.*

b. What infrastructure or assets do they work with? *Will be guided by the phased implementation plan.*

56. Are you open to a phased implementation? *Yes. Phased implementation is desired.*

57. Page 8. Exhibit A, #4: What is intended for "data documentation for map and unmapped facilities"? *Unmapped refers to assets not in GIS database (mostly vertical assets).*

58. The City identifies multiple areas where there are reporting needs. Is there a defined list of business requirements that can be shared or would a discovery workshop be part of this project to identify those requirements? *There is not a defined list, requirements are TBD.*