

City of Aurora, Illinois

INDOOR MAPPING SOLUTION

RELEASE DATE: November 18, 2022

RESPONSE DEADLINE: December 13, 2022, 5:00 pm



RESPONSES MUST BE SUBMITTED ELECTRONICALLY TO:

<https://secure.procurenow.com/portal/marketplace-city>

City of Aurora, Illinois
Indoor Mapping Solution

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1. INTRODUCTION

1.1. [Summary](#)

The City of Aurora, Illinois seeks a partner to build a "Digital Twin" of City buildings through accurate mapping and modeling of its infrastructure. This will be a multi-step engagement, beginning with imaging all in-scope rooms/floors/buildings before using modeling software to build the 2-Dimensional or ideally 3-Dimensional Digital Twin. The City prefers to find a partner to perform both elements, but may choose to split the work amongst qualified vendors.

1.2. [Timeline](#)

Release Project Date	November 18, 2022
Proposal Submission Deadline	December 13, 2022, 5:00pm

2. COVER PAGE

2.1. [Introduction](#)

Title: Indoor Mapping Solution

Background: Technology Procurement

The City of Aurora is a city of 200,000 located in the Fox Valley in northwest Illinois. Aurora is known as the City of Lights because in the 1800s the leaders of our city were implementing the latest technology when they decided to use electric streetlights throughout town – making Aurora one of the first cities in the nation to do so.

Part of the current strategic plan to continue Aurora’s growth is to be a leader in technology and innovation, embracing new ideas and initiatives to change. Mayor Richard Irvin’s goal is to make Aurora the technology leader of the Fox Valley region and the State of Illinois.

As part of that plan, Aurora has a [Technology Strategic Plan](#) to guide us through those initiatives and programs. Our guiding principles for the technology strategic plan are straightforward and align with the vision for our city – 1) to create and embody One IT, through shared products, processes, people, and partners; 2) Customer Experience, through providing quality solutions and services that ensure customer confidence and satisfaction; and 3) Agility & Smart Sourcing, by using the most efficient and effective blend of resources to meet our city’s ever changing business demands. Our mission is to deliver innovation, smart solutions, services and provide first class customer service.

In supporting those plans, Aurora has partnered with Marketplace.city to support technology procurements. For technology topics areas, Marketplace.city manages the process to provide Aurora with the market landscape of companies and solutions, comparable implementations, contracts and pricing options, and various procurement options. The City of Aurora then picks the solution, vendor and procurement vehicle that best fits their needs.

This process helps us achieve our goals to use technology to best serve our citizens while providing use with speed, efficiency, and transparency throughout the process. Through it we seek to shorten timelines, lower the resources used by both The City and the vendor community and achieve fair partnerships. Intergovernmental (piggybacking) language is included as part of our standard contract, to increase scalability for the market via Marketplace.city, and avoid other governments having to perform the same due diligence. Aurora seeks to use piggyback contracts and buy directly wherever possible.

The following is an opportunity overview and associated vendor response form for interested vendors to read and complete to be included in the reporting and selection process. Thank you in advance for your participation in the process.

Aurora requires all awarded vendors to be registered with the city and additional information may be requested at the time of the award. An overview of the process and information can be [found here](#).

Please see here for [complete bidding information](#) for the City of Aurora.

An example of a standard City of Aurora contract can be [found here](#).

The City of Aurora may cancel any or all parts of this bid and reserves the right not to proceed with a contract. The City has the right to terminate any agreement with the vendor, in whole or in part, for any reason or if sufficient funds have not been appropriated to cover the estimated requirement of the Services not yet performed, by providing vendors with thirty (30) days' notice specifying the termination date.

Any information shared with The City of Aurora through this process is subject to the Illinois Freedom of Information Act.

For any questions about the content or the process, please email hello@marketplace.city.

3. OPPORTUNITY OVERVIEW

3.1. [Goal](#)

The City of Aurora, Illinois seeks a partner to build a "Digital Twin" of City buildings through accurate mapping and modeling of its infrastructure. This will be a multi-step engagement, beginning with imaging all in-scope rooms/floors/buildings before using modeling software to build the 2-Dimensional or ideally 3-Dimensional Digital Twin. The City prefers to find a partner to perform both elements, but may choose to split the work amongst qualified vendors.

3.2. [Partner Overview](#)

This city-wide initiative is led by Aurora's Information Technology Department.

3.3. [Background](#)

The evolution of Aurora's building infrastructure is no longer well-represented by original blueprints. City Hall, for example, has had multiple additions made over the last 70+ years, and there is no cohesive, accurate map of the building as it stands today. Additionally, across City buildings, there are numerous unrecorded instances of walls removed or installed, doors added or removed, among other alterations.

City stakeholders lack a centralized, accurate schematic of its building stock - and seek a partner to help build one.

3.4. [Opportunity Overview](#)

This major overhaul of Aurora infrastructure records includes all City buildings, excluding the public schools. This represents approximately 80 structures ranging from wells to City Hall to the Aurora Police Department headquarters. Qualified vendors will receive an exact building list and estimated square footage at a later stage.

Project leaders envision a partner bringing 360-degree cameras to each building/floor/room at the outset. Once these images have been captured over some scheduled period of time at each in-scope location, they hope these to be "stitched" together to create a "doll-house" digital schematic. This Digital Twin will ideally be 3-Dimensional.

Beyond employee ease-of-use and record-keeping, project stakeholders imagine this as a major public safety effort. They have developed a list of "linked assets" that they would like to be tied to the Digital Twin. Some examples of these assets include:

- First, the City wants to link all of its currently installed Genetec security cameras to their accurate "Digital Twin" location, such that live video feeds can be accurately parsed from their real-world location. Within the current software environment, all City Hall cameras are stacked on the same pinpoint latitude/longitude location as City Hall, rather than their particular niche and corner.
- Second, the City hopes to link door locks to this digital model, allowing remote control of critical access points in the event of emergency.

- Last, stakeholders would like fire extinguisher locations to be listed within the model corresponding to their real-world location for ease and speed of access.

Project leaders may choose to bring these linked assets online in phases depending on the chosen solution's capabilities and cost structure.

3.5. [Evaluation Criteria](#)

- Capabilities
- Prior Experience
- Price & Model
- Approach, Implementation
- Value-added Services

3.6. [Approach & Timeline](#)

This request for qualification was released on Friday, November 18, 2022.

We will be accepting responses through Tuesday, December 13, 2022 at 5:00 pm.

3.7. [Partnership with Marketplace.city](#)

The City of Aurora has partnered with Marketplace.city to support technology procurements. For selected topics areas, Marketplace.city shows The City of Aurora the market landscape of companies and solutions, comparable implementations, contracts and pricing options, and various procurement options. The City of Aurora then picks the solution, vendor and procurement vehicle that best fits their need.

For this support and access to Marketplace.city, The City of Aurora has an MOU with Marketplace.city that they will include language in their contracts developed through the Marketplace.city process stating the vendor will pay Marketplace.city an administrative fee of 7% of the initial contract value, collected when vendor receives payments. [The complete MOU can be found here.](#)

Marketplace.city will confirm that agreement through a separate agreement with selected vendor(s).

4. **VENDOR INFORMATION AND RESPONSE**

4.1. Solution

Overview of your offerings and solution

*4.1.1. Please provide a 1-page overview of how your solution fits the City's need.**

*Response required

*4.1.2. Please select which of the two component parts of this project you are able to accomplish:**

Select all that apply

On-site City Building Imaging

Software Development to build "Digital Twin" of City Buildings

*Response required

4.1.3. If you selected only one of the prompts in Question 1.2, do you have a preferred partner to provide the other half of the project?

Maximum response length: 300 characters

4.2. Functional Questions

Specific Functional Questions

*4.2.1. Please select which type of Digital Twin you are able to provide the City of Aurora?**

Select all that apply

2-Dimensional

3-Dimensional

*Response required

4.2.2. If you selected both 2D & 3D in question 2.1, please describe the difference in process for these respective captures.

Maximum response length: 300 characters

*4.2.3. Please provide a list of "Linked Asset" types you have integrated in your solution before. **

For example, security cameras, printers, fire extinguishers, door locks, etc.

Maximum response length: 300 characters

*Response required

4.3. [Technical Questions](#)

Specific Technical Questions

4.3.1. *Please describe the day-of technical process for imaging a given space.**

Maximum response length: 500 characters

*Response required

4.3.2. *Will your final Digital Twin be compatible with Esri data files?**

Maximum response length: 300 characters

*Response required

4.3.3. *Please describe the process of linking key assets and data feeds to your Digital Twin.**

Do you have a pre-set integration list? City stakeholders are particularly interested in linking Genetec security camera feeds and electronic door-locking mechanisms.

Maximum response length: 600 characters

*Response required

4.4. [Prior Experience and Case Studies](#)

4.4.1. *How many comparable government engagements do you currently have for your proposed solution?**

- None
- 1-10
- 10-25
- 25-100
- 100+

*Response required

4.4.2. *Please Provide References for the City of Aurora.**

Please download the below documents, complete, and upload.

- [Marketplace.city Reference ...](#)

*Response required

4.5. [Pricing and Model](#)

4.5.1. *Please describe your proposed pricing model.**

- Solution as a Service
- Software Sale and Maintenance
- Time & Materials
- Other

*Response required

*4.5.2. Please describe your Pricing Drivers.**

For Example, Number of Buildings, Combined Building Square Footage, City Size, Flat fee etc.

Maximum response length: 300 characters

*Response required

*4.5.3. Please describe your cost structure for "Linked Assets." **

For example, with the Genetec camera integration, is this a one-time connection fee or per-camera?

Maximum response length: 300 characters

*Response required

*4.5.4. Based on your understanding of the scope of the 80 buildings Aurora needs to image, please provide a price estimate. **

This estimate will be further refined if Aurora stakeholders wish to learn more about your proposal.

Maximum response length: 300 characters

*Response required

4.6. Implementation

*4.6.1. Please describe your process of developing a calendar for imaging a broad number of city buildings as is the case with Aurora. **

Do your teams typically come on weekends? Who from the client typically accompanies the teams?

Maximum response length: 500 characters

*Response required

*4.6.2. Given that Aurora needs to image some 80 buildings in its inventory, please provide an estimate of how long it would take you to perform the on-site imaging process.**

Maximum response length: 500 characters

*Response required

4.6.3. *From the completion of the imaging process, approximately how long does it take to deliver the Digital Twin?**

Maximum response length: 300 characters

*Response required

4.7. Other

4.7.1. *Please indicate any Business Designations you have.**

Select all that apply

- Minority-Owned Business
- Woman-Owned Business
- Veteran-Owned Business
- Small Business Classification
- Local to Aurora, Illinois
- Not Applicable

*Response required

4.7.2. *Link to your Marketplace.city Profile Page*

Enter your marketplace.city profile, if applicable.

Maximum response length: 200 characters

4.7.3. *Anything else you want to tell us?*

Is there anything else important we should know about your solution, company or proposal.

Maximum response length: 500 characters

4.7.4. *By submitting, I understand that the City of Aurora and Marketplace.city will receive this information. I have read and understand the terms of this Opportunity.**

- Please confirm

*Response required