


AERIALSPHERE WHITEPAPER

# How to Strengthen your Oblique Imagery RFP with OmniCardinal Imagery from AerialSphere



Share more than maps.  
**Share experiences.**

**AerialSphere®**

A light gray background featuring a stylized map of a city grid. A prominent river or waterway flows from the bottom left towards the center, with several smaller tributaries branching off. The grid lines represent streets and blocks, creating a complex pattern of rectangles and irregular shapes.

Developing and managing the request for proposal (RFP) process is critical for ensuring that your imagery and data were collected, processed and delivered with the best features and quality possible.

# Introduction

Finding an aerial photography/mapping solution that meets your organization's needs can be daunting.

A well-written RFP, however, can put your organization on the path to success by effectively documenting program goals; features, functionality and services required; scoring criteria; and implementation details.

Your organization likely operates many computer applications that rely on GIS technology to provide information to staff, businesses, citizens, to augment the organization's professional ability to analyze data. Your current applications may likely display traditional orthogonal or vertical (straight down) images that are extremely useful for their spatial accuracy, however, they do not provide the visual information that OmniCardinal oblique imagery can provide. OmniCardinal oblique imagery technology from AerialSphere provides more than four cardinal direction static oblique high-resolution views of most properties, buildings, highways, landmarks, and more, from different angles or directions enabling users to see every aspect of the world below as its true built environment.

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*The XP360 web application from AerialSphere can also be leveraged to browse, navigate, upload vector data and much more. (see page 12)*

Most states, cities, counties, cities, towns and co-ops choose to outsource their aerial photography and GIS needs to a third party. Developing and managing the request for proposal (RFP) process is critical for ensuring that your imagery and data were collected, processed and delivered with the best features and quality possible.

This white paper provides guidance on how to properly write and manage your aerial photography RFPs ensuring qualification criteria are well-defined and your performance requirements are clearly communicated.

Our overall goals of this guide are to help you deliver an RFP that:

1. *Saves you time and money*
2. *Makes you aware of the latest and greatest options for aerial photography*
3. *Helps you select the best vendor for the job*

# The Purpose of an RFP

The purpose of an RFP is to communicate requirements, define the vendor qualification criteria, and to solicit complete and detailed responses that enable an objective, thorough evaluation. Specificity is the key to success when writing an RFP.

**A good RFP is clear and concise.** It explains expected outcomes with sufficient detail to allow accurate pricing while leaving room for potential innovation and helpful suggestions by the participating vendors. Ineffective RFPs, on the other hand, often lack detail which prolongs the process or makes it fail to deliver expected results. Poor RFPs, in some cases, might offer too much detail without explaining the expected results. This over-specification makes it very hard for vendors to show any creativity or to highlight their value or innovation. Over-specified proposals have the ill-effect of making all vendors look the same.

*RFPs should be broad enough to draw out the differences in respondents, but not completely open-ended*

When assembling an RFP for Aerial Photography, it is important to know not only the basics of your requirements, but what new technologies or features are available to make your job or project more successful.



# Issuing an RFP

Some points to consider in your process:

## **Become informed**

Without detailed knowledge of aerial services available, you might not ask the right kind of questions.

## **Analyze your needs**

What are the main pain-points in your current aerial photography/mapping needs? Who will need to use the services and which features are important to the users?

## **Contact providers**

Contact service providers, ask them about their services and solicit their input to help you write the RFP.

## **Pre-qualify**

The more RFP responses you receive, the more your review periods will require significant time and effort. You may wish to pre-qualify your business partners and only send the RFP to those that have made a favorable impression.

## **Determine award criteria**

The best price might not necessarily give you the best value or lowest overall cost of ownership. Determine what is important to you and communicate this to the business partners.

## Pro Tip #1

Bigger isn't necessarily better

**RFP's have enough content in them, don't ask questions that don't matter to your organization.**

Eliminate questions you think you should ask, but don't have a need for the answers. The basis for an RFP is to collect as much relevant information as possible. Don't confuse "as much" and "relevant" – keep all of your questions directly applicable to the needs of your organization.

A well-written RFP can make a big difference – it really is important that you use good syntax, clean and concise messaging and make sure your t's are crossed and your l's are dotted. Miscommunicating your information may not result in the responses you are looking for.

## **Pro Tip #2**

The informed bird catches the worm

**By clearly understanding and outlining your needs, you give potential partners straightforward direction to build their proposals.**

Do your homework. Have a strong knowledge of the aerial photography/mapping deliverables you are requesting. Consult with vendors to understand the current technologies. Do not become too attached to a specific technology, manufacturer, processor, etc. unless you understand fully what it means for your requirements.



## Pro Tip #3

Allow for the use of “alternate bids”

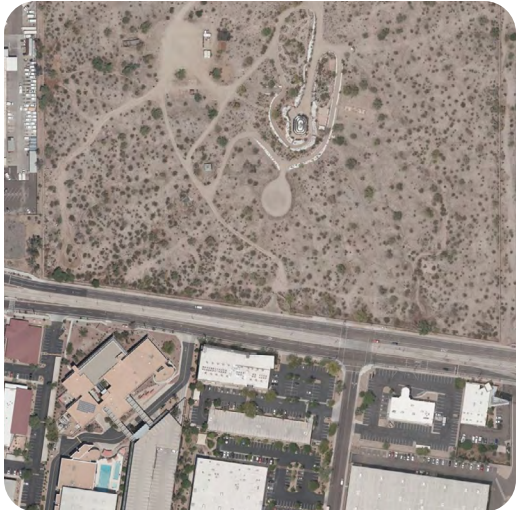
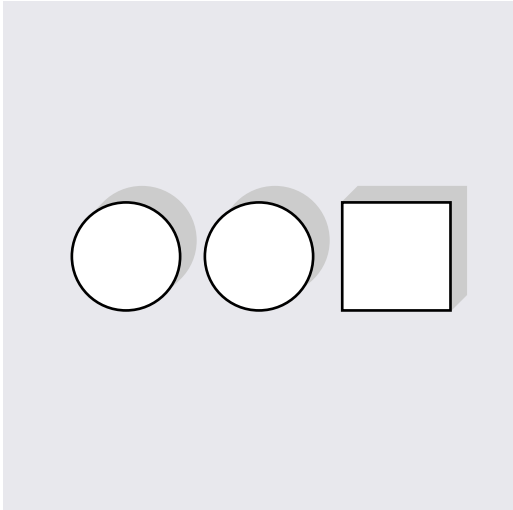
**Accepting alternate bids will allow you to compare bidders competitively while still allowing the bidder to propose alternates... perhaps a new solution that you hadn't thought of.**

It can benefit your organization if you allow the opportunity for a new innovation in the Aerial Photography or Mapping industry to be included. With consistent advances in the aerial photography industry, it is always a good idea to let people propose something completely new for your requirements that may not necessarily fit the way your RFP is written. With features such as resolution, perspectives, delivery mechanisms, data integration, etc. improving on a daily basis, give your organization the best chance at having the best solution possible.

# Spotlight Technology: OmniCardinal Imagery

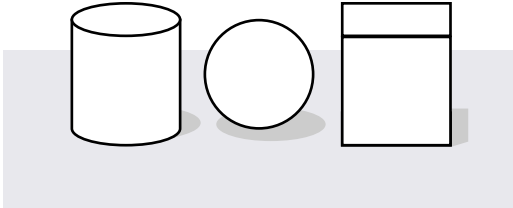
As we have alluded to earlier in this guide, it is essential to be informed of the technology and services that are available to you. Most aerial imagery is limited to nadir (straight down) views, which really limit the information you can get from a photo. Even if you have high-resolution views, you are missing out on seeing the target from multiple vantage points.

*Sometimes called "Vertical Imagery", nadir photos are akin to maps, offering little in the way of vertical information or perspective.*



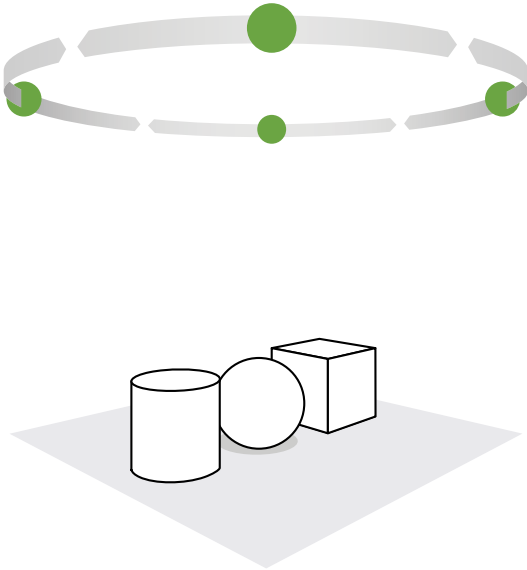
Some aerial imagery has adopted oblique views, but those are typically relegated to 45-degree angles. Obliques are good for measuring distances, and definitely better than nadir.

*Obliques offer more vertical information than nadir images, but are limited by cardinal directions and unaturally isometric.*



For many projects, it is important to have both perspectives, but why limit yourself to those two angles when you can gain an increase in detailed knowledge of a location from utilizing **OmniCardinal imagery**?

One of the bigger developments in the aerial photography space is the availability of high-resolution 360-degree aerial panoramas that provide both vertical and oblique perspectives and allow for completely immersive experiences of the world below. This technology is referred to as “OmniCardinal Imagery”, as this imagery knows no directional bounds and is viewable from every possible direction, surpassing the common cardinals – North, South, East & West, regardless of the perspective of the sphere. In addition to a more natural perspective, you can easily navigate through the viewer as if you were controlling the aerial camera yourself.



*OmniCardinal Imagery offers users more options and provides viewers with a more intuitive perspective.*

# Introduction to AerialSphere and XP360

AerialSphere provides its immersive aerial imagery via the XP360 platform, which consists of an intuitive web app and an easy to use API.

Our full-color, georectified 360-degree aerial panoramas are delivered as spheres, giving the user a fully immersive experience of the world below. XP360 can assist your organization in meeting its various requirements pertaining to land inspections, property appraisals, economic development, crisis management and more.

XP360 will enhance the existing Geographic Information System (GIS) enterprise infrastructure maintained by your organization by accessing the dataset through our API.

## What is a Sphere?

Aerial imagery is traditionally delivered as a top down view, or in some cases, the image is captured at a 45-degree angle (oblique). An AerialSphere “sphere” allows you to experience the world below from any angle, with no vantage constraints or degradation in resolution.

## Area, Frequency of Coverage and Resolution

AerialSphere offers high resolution color 360° oblique (angle), interactive and immersive panoramic images, **from every single degree of direction (360°)**, available in more than 65 major US markets. Our high-resolution, 360° oblique imagery has an effective ground sample distance of up to 4 inches. Our national image set is captured annually, as weather conditions permit. Solar angles are chosen at the discretion of the AerialSphere Flight Operations team, so as to minimize shadows.

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*AerialSphere owns six patents pertaining to the capture and display of 360-degree aerial photography*

Our imagery is captured on predetermined flight lines every one-half mile, on the one-half mile mark. Typical height above ground level (AGL) is approximately 2,500 feet, with variances allowed in each market due to accessibility, weather, air traffic control and other factors.

### **Imagery Quality**

AerialSphere XP360 imagery is captured when the majority of the ground is not obstructed by clouds, smoke, dust or fog or when cloud shadows appear on no more than 5% of the area of any individual photograph – however no guarantees can be made for every panoramic image. AerialSphere imagery aspires to never contain defects such as out of focus, dust marks, scratches, or inconsistencies in tone and density.

### **Georectification**

Not only do our spheres deliver an incredibly engaging experience, they are fully georectified, which means they are linked to a coordinate system (latitude & longitude) so datapoints can be accurately located on a map. Through a patented process, our platform is able to reference our immersive panoramas to a spatial grid, so that every pixel in our sphere can be used for associating points of interest within the spatial grid.

### **XP360 Functions**

#### ***Viewing Tools:***

- Zoom in and zoom out
- Directional select view (360° in every direction)

#### ***Navigation Tools:***

- Display compass on image
- Display pane window on Map
- Display location (coordinates) of selected point on map or image
- View window on Map

### ***Other GIS Tools:***

- Overlay GIS features
- Info tool to bring data from GIS layers on 360° panoramic images
- Zoom Map to image footprint
- Display image footprint on Map
- Allow user to select Fly Here feature, on any pixel, to automatically display the closest panoramic image associated to the location of the selected result.

### **Annotations**

Create annotations and pop-ups on 360° panoramic images with text, lines, arrows, and more.

### **Attachments**

Place hotlinks/hyperlinks to associate documents to given locations on 360° panoramic images.

### **Delivery & Licensing**

AerialSphere provides access to its digital geo-rectified 360° oblique aerial imagery, with access available either by way of XP360 API and/or XP360 web application. The XP360 platform may assist your organization in meeting its various requirements pertaining to land inspections, property appraisals, economic development, crisis management and more. AerialSphere offers its XP360 API subscriptions for an initial one (1) year term, with multiple year options to renew. The XP360 web application subscriptions are offered on a monthly basis, with year terms available. In no way does AerialSphere Customers, Resellers and/or Partners own the imagery.

## Documentation

System documentation in digital format for the following types of users can be provided by AerialSphere:

**End User:** Detailed description of the purpose of every software component including options and step by step instructions of how the functionality is to be used.

**Software Developer:** Detailed explanation of interfaces, objects, object fields and methods, APIs, code or similar components needed by developers for the customization and integration of applications with 360° panoramic imagery technology.

**System Administration & Support Staff:** Configuration instructions, architectural design, common problems and solutions of the 360° panoramic imagery API, detailed instructions on how to configure the touch points in the integration of the 360° panoramic imagery with other products.

## Support

- Telephone, chat and email technical support
- Technical support representative available
- Support during normal business hours from 8:00 am to 5:00 pm Arizona mountain (MST), Monday through Friday.



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**Share experiences.**

For more information on how AerialSphere can differentiate your business, email us at [sales@aerialsphere.com](mailto:sales@aerialsphere.com) or visit us at [aerialsphere.com](http://aerialsphere.com).