

An aerial photograph of a city skyline, likely Sydney, Australia, featuring the Sydney Tower Eye and various high-rise buildings. The image is split horizontally: the top half shows the skyline against a clear blue sky, and the bottom half shows a dense green park area with trees and a road. A large yellow banner is overlaid on the bottom half, containing the title text.

VISIONAIR

The Guide to Architectural & Construction Development

Why Visionair Media?

Visionair Media's arm of specialist pilots, technology partners and data specialists unite to deliver revolutionary turnkey imaging solutions for the architectural industry, including some of the world's most prestigious architectural firms.

With over thirty years of expertise and numerous design projects, both locally and internationally, Visionair's professional architectural services extend to interior design, urban strategies, retail centres, iconic buildings, hotels and resorts, business precincts and newer housing developments.

Visionair's often, iconic architectural contracts have been a result of ongoing partnerships with numerous leading realtors, developers, government departments and architectural firms, including, Crone, Architectus, Tzanes, SOM Chicago and KPF New York.

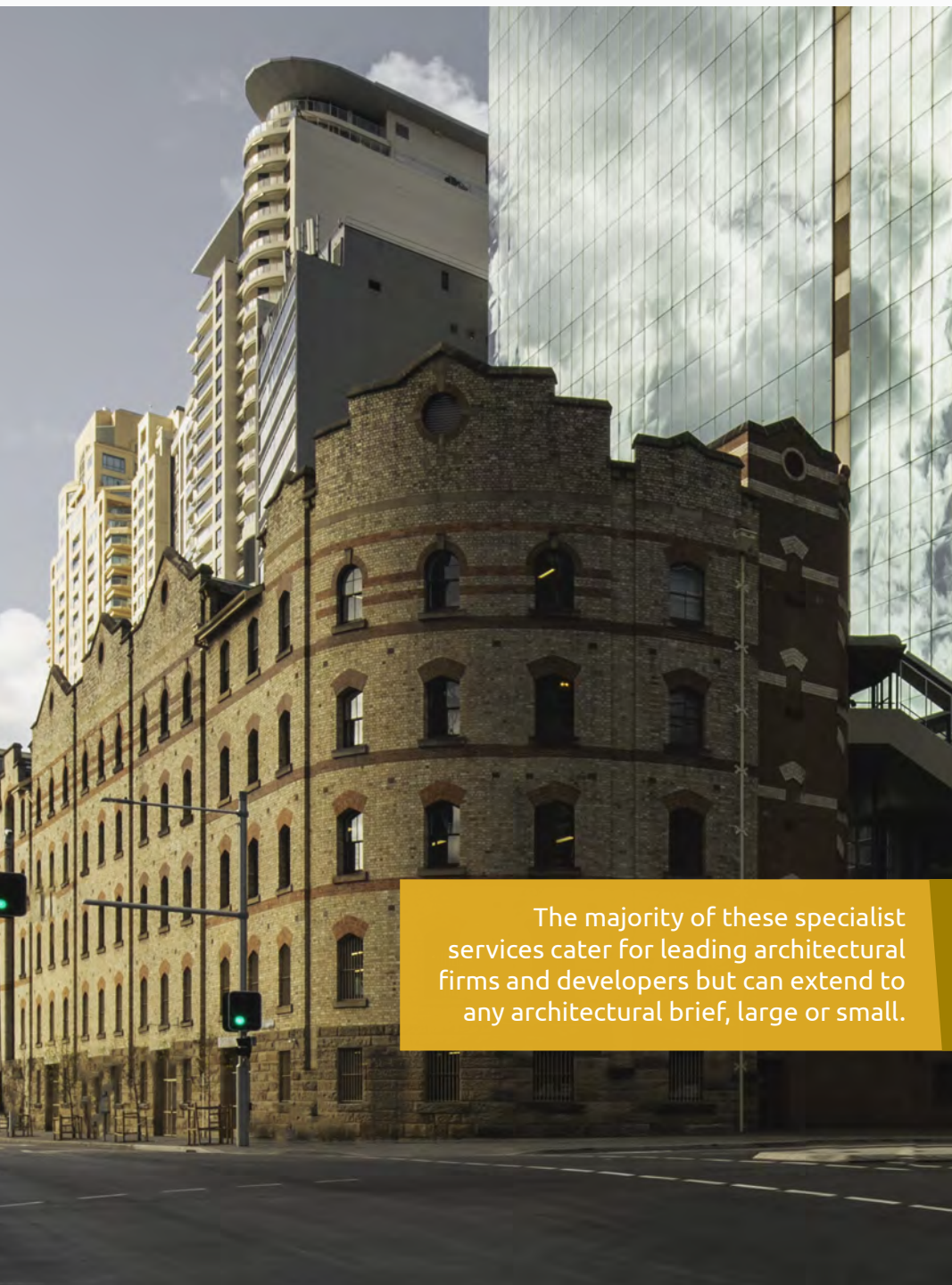
Upon our first consultation, our reliable team can develop a plan to photograph and film any interior or exterior facade from the ground, or air, ensuring the vision reflects the high calibre of quality expected from such an industry.

Our ground-based professional DSLR architectural services can include:

- » Utilising tilt-shift lenses to capture isometric, distortion-free interior and exterior portfolios
- » Artistic and textural elements for marketing and design use
- » Pole based aerial photography and videography

In addition to ground-based services, our qualified aerial photography team can even assist clients with a myriad of highly desirable deliverables from our custom-built drones which offer superior photographs and videos. These specialist architectural services include:

- » Photogrammetry and aerial mapping
- » Detailed CAD design with centimetre accuracy
- » Highly precise, georeferenced 2D maps and 3D models
- » Undistorted, true-orthomosaic maps
- » 3D Modelling for overlaid artistic impressions



The majority of these specialist services cater for leading architectural firms and developers but can extend to any architectural brief, large or small.

Consultation and Meeting

Visionair's Director and Producer, Jim Moustakas can meet with lead architects or project managers to discuss the architectural brief and analytic service requirements. In the initial meeting, we can discuss the architectural design of the space and provide decisive consultation on any photography, videography, mapping or specialty aerial documentation requirements that may suit the job.

Using a plethora of technical capabilities, Visionair can advise your organisation on how to circumnavigate common obstacles which often arise from existing buildings to newly planned designs.

For example, as the industry has many governed laws surrounding altitude and access, our experienced CASA (Civil Aviation Safety Authority) certified pilots can access often tricky or restricted areas with authority and ease. With this sort of industry clearance, hard-to-access sites like Baranagroo, the Sydney CBD or new housing developments quickly become possible with our experience and qualification.

Importantly, we understand environmental factors and the need for discretion when working on large-scale architectural projects, which is why we work discreetly to minimise impact and disruption to a space.

How will the architectural photography/video project unfold?

During the first initial meeting with the Visionair team, we can formulate a plan. Our team can then pursue a portfolio of images based on the architectural brief and planning stage.

Based on the brief contrasted in the planning stage, we focus on sourcing media from within the proposed or existing space with the aim to assist Architects with 3D renders for future developments.

Our team takes these predetermined images using professional DSLRs with

mounted wide-angle tilt-shift lenses for an accurate representation of vertical lines and perspective.

Specialist architectural portfolios can also extend to include photogrammetry, true-orthomosaic mapping and 3D models as well as any other custom requirements that can assist in developing a proposal for an independent panel of design professionals and stakeholders.

To implement our strategy, we employ the latest technology in aerial mapping systems.

A photograph of three professionals in a modern office setting. Two men and one woman are gathered around a table, looking at documents. The man in the center is wearing a blue hard hat. The woman on the right is holding a blue folder. The background shows a large window with a view of a city.

Our Strategy and your Project

VAt Visionair Media, we strive to enhance the design strategy process by incorporating innovative methods. This is accomplished through the application of fresh techniques partnered with the latest technology.

Using professional DSLRs rigs with tilt-shift lenses, or specialist aerial platforms, our architectural team can ensure strategic planning is in place to minimise any risks before undertaking the project.

How our specialist aerial, architectural division can add to your brief

No matter the size of the project the Visionair team can capture a vast array of images with high accuracy to ensure the most detailed 3D render is processed, within budget and on time.

In comparison to lower quality satellite imagery, Visionair's incorporates methods which can produce $\pm 40\text{mm}$ of high accuracy that can be replicated many times over for development and measurement purposes.

Significantly, every aerial mapping pass we conduct collects multiple sources of data for later evaluation.

The benefit of specialised architectural photography saves time, as surveyors and architects who are often on-site multiple times can obtain specific measurements during the excavation and build. The ability not to have an additional human presence on the site ensures site work continues uninterrupted and negates safety risks for those who would typically be present.

Our specialist aerial, architectural division use the industry technology standard, RAYCLOUD™ by Pix4D, which assists with automatic inspection and accurate measurements.

Once our team captures image data for a planned flight, it can be read and measured in many ways.

Point to point accurate line measurements can be studied on cloud-based renders, or calculation of surface area is also possible. Volumes and mass of a subject can also be understood no matter where the location of the building, even when built on uneven terrain.

The image data we collect is true-orthomosaic due to the tilt-shift lenses and lack of lens distortion in all our drone setups. It is for this very reason we can create a precise digital surface model from a defined point cloud that is accurate in every way. Extracted ground points or DSM can also automatically generate a DTM with or without contour lines.

The 3D models produced by Visionair include high-resolution photographic texture, capturing a magnificent level-of-detail for models and large-scale diagrams. This level of detail combined with our cloud-based connectivity service combines for instant collaboration and analysis.



Will the 3D renders work with our existing software?

The design of the 3D renders supplied by either our ground-based or aerial teams can be modified to suit your architectural firms existing workflow. Marketing teams generally work with particular colour spaces and file formats, and here at Visionair, we understand why it is important to provide flexible designs. Images can, therefore be supplied in RGB or class colours to uphold the standard of colour management profiles.

The technology we adopt is an excellent marketing tool. With state-of-the-art photogrammetry mapping at your fingertips, you can be sure our system works with a wide range of existing architectural applications and software.

What file formats are used and how will they be delivered?

The Visionair ground-based architectural team and specialist aerial team use a vast number of inputs to collect data. Our professional equipment processes images in two main formats; .Tiff and RAW, with the latter reaching a higher resolution. Video formats record in either .mp4, .mov, .wmv, .avi and can also be used to obtain seamless renders of 3D models.

Once the images are processed for any geometric distortion and corrections

have been reviewed and orthorectified, the orthomosaics instantly become accessible via our secure cloud-based service, enabling architects and project collaborators to work instantaneously with each render.

Upon completion, Visionair sends all deliverables via the cloud, so they work with various 3D architecture software and BIM software programs such as CAD/CAM for further development of 3D models.

The Type of Equipment we Use

The equipment Visionair utilises consists of professional full-frame DSLRs combined with specialist tilt-shift lenses. This equipment then mounts on a custom-built heavy lifting drone. The fact our pilots and vision operators use tilt-shift lenses negates any chance of geometric distortion ensuring accurate orthomosaic images and 3D models.

Additional to the full frame DSLR aerial lineup, the Visionair equipment arsenal can cater for custom requirements extending to DSLR thermal cameras capable of recording multispectral images as well as camera rigs for recording 360-degree VR overlays.



Architectural Photography using Professional DSLRs and Tilt-Shift Lenses

With over thirty years of experience, the Visionair team can capture both interior and exterior facades with excellent exposure and colour correction no matter what the lighting conditions. Our team can feature any areas of interest for general purpose use or additional 3D renders.

As our team adopts specialist wide-angle tilt-shift lenses, you can rest

assured all vertical lines remain vertical, plus perspective remains consistent with the plans.

Visionair can supply images in whatever file format you require, and if something in the photos isn't quite right, we can endeavour to rectify the image by reshooting to ensure you obtain what you require for your successful pitch to local government or council.

Architectural Video Recorded using Professional DSLRs and Tilt-Shift Lenses

Visionair can utilise video to express the experience of the development from start to finish. Our team can consist of a single videographer or larger production crew to record the project for marketing purposes or online prospectus requirements.

Interviews in the form of testimonials or in-depth overviews by essential

personnel often form the best way to tell the story of success, which in turn can capture future clients. Another requested video feature our team can implement is a time-lapse of the building process. Using robust hardware combined with dynamic software the Visionair team can turn multiple images into an engaging time-lapse video.

Aerial Photography and Videography using a Custom-Built Drone

Our unique portable drone system is perfect for people working within the AEC industry. Whether it is capturing views of an apartment or commercial development you can put yourself at ease knowing the Visionair team is certified and experienced to get the job done safely, on time and budget.

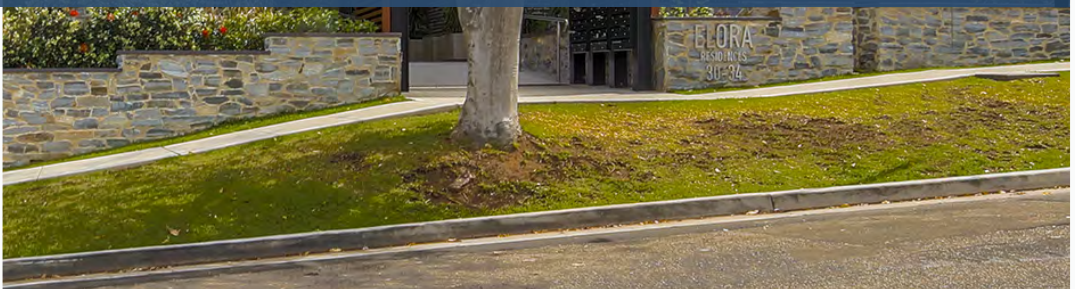
As we explain below, our specialist architectural aerial system can record both high-quality photographs and video up to 4K in resolution. Both formats are often regular requests for surveying land for potential projects as well as supplying aerial mapping for existing projects.

Adding value to a project, real-time monitoring and survey data can be overlaid to ensure BIM models depict high-resolution point clouds for precise drafting. Also, this critical information provides analysis for feasibility studies; which in turn leads to informative client briefings to take place through realistic visual representations of what the finished project may look like.

After the initial development stages, the Visionair team can record repeat drone flights during construction. This crucial cloud-based data can be sent directly to the architect and any assisting project managers for real-time up-to-date inspection and monitoring.

Upon delivery, the firm's marketing department and sales team can access pre-rendered drone content to create 3D and VR walkthrough promotional material to assist in vision, sales and environmental evaluation and ongoing assessments.

We can also supply a multitude of imaging data to assist clients; even if it is as simple as a birds-eye view of a completed project for marketing purposes, to more advanced true-orthomosaic images for 3D renders.



Contact us

Not sure where to begin, or need a tailored service? Ask us. We encourage you to contact us today for a free consultation where we can learn more about your project and consult what architectural photography or aerial imagery is appropriate for your brief.

Contact us today on **1300 557 099** or **info@visionair.com.au**.

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