Hover Visions provides low-altitude aerial photography throughout Oklahoma and surrounding states in the American West. Owner Dale Parrish was tasked with surveying an 18-acre construction site for four oil tanks, where accurate progress reports are key to keeping the project on track.

**CHALLENGE:**

The fields around Cushing, Oklahoma are the oil crossroads of the world, with new infrastructure under constant construction. Overworked project managers regularly jump from one company to another, making it hard to keep consistent oversight of critical tasks.

For one company building four oil storage tanks, tracking progress of the tanks wasn’t enough. Federal environmental safety regulations require earthen containment berms to be in place before the tanks can be put into service – making the berms just as mission-critical as the tanks themselves.

Monitoring berm progress from ground level on an 18-acre construction site is no easy task, so contractors typically do it with manned helicopter flights. Each flight costs $600 to $800 to generate just a handful of images – and they must be repeated twice a month over five months.

Aerial Data Service, Inc., which monitors the site’s construction, needed better data at a lower cost. To get it, they reached out to Hover Visions owner Dale Parrish, a licensed pilot with a fleet of DJI drones for aerial imaging.

**SOLUTION:**

Parrish used the DroneDeploy software suite to automate the process of collecting, processing and sharing aerial data. He launched his DJI Inspire 1 for a 15-minute flight on a predetermined route controlled by the DroneDeploy Android app, gathering 66 images from 350 feet aboveground.

When the Inspire 1 landed, Parrish uploaded those images through a web browser into DroneDeploy’s Map Engine for processing. Barely an hour later, the processing was complete, allowing Parrish to click an email link to view the results in his browser – or even on a mobile device.

HD 3D dirt on the construction site, available in 66 minutes

“A 15-minute Inspire 1 flight and the DroneDeploy software suite provide better site data than hours of helicopter time, at a fraction of the cost.”

- Dale Parrish, licensed pilot and owner of Hover Visions
RESULTS:

Parrish delivered four products to Aerial Data Services by sending a link to DroneDeploy’s output: Raw images, digital elevation models, a high-resolution orthomosaic and an interactive, zoomable 3D reconstruction of the entire site.

With the same products in hand, they were able to converse directly on the data with threaded text exchanges, upload geotagged images taken from mobile devices on the ground, and make necessary measurements to understand progress on the entire construction site at once.

“DJI really stands apart in their ability to deliver robust, reliable, safe drones for construction sites. The DJI and DroneDeploy partnership makes it dead-simple for project managers to deliver rapid results. Thanks to automated drone flights and scalable, cloud-based image processing—distributed teams can now measure construction progress from accurate maps and 3D models, calculate stockpile volumes, analyze elevation models, and have conversations on the maps themselves—from any mobile device.”

-Ian Smith
Drone Deploy

$5,000 cheaper than comparable manned helicopter flights

Automatic elevation models, orthomosaics, and 3D reconstructions

Superior Price

Superior Product
With nine more flights scheduled over the duration of the project, Parrish expects his drone services will cost $5,000 less than the client would have paid for similar helicopter flights – while providing richer data on a same-day turnaround.

“As this project progresses, we can use the same consistent data formats from each flight to ‘scroll through time’ and ensure construction is meeting deadlines,” Parrish said. “Time and money are on the line on this project, and DJI and DroneDeploy ensure the client gets it done with maximum efficiency.”