



# The 7 Most Popular Use Cases for Drones in Construction

The construction industry is changing, why haven't you?



# How are Drones Used in Construction?

- Lowers physical risk to workers
- Provides firms affordable aerial photography and video
- Helps contractors map lots and project areas
- Can be an effective tool for material management
- Makes communicating and updating projects simpler
- Provides straight forward analysis
- Excellent tool for evaluations and post-construction marketing



# Reducing Risk to Workers

Some of the most noteworthy risk that drones reduce include:

- Workers falling from great heights
- Injury due to trench collapse
- Accidental injury resulting from unseen hazards
- Traversing scaffolding for building façade inspections
- Workers attempting to get the perfect project camera shot from altitude



AVTDRONES

# Work Smarter not Harder Using Drones

Sending a drone into an unsecured or hazardous area before sending in workers can prevent a wide variety of injuries or fatalities. By deploying a drone into an unknown area managers can investigate and be made aware of potentially dangerous conditions and better equip workers to navigate an area.

- Missing areas of flooring or stairs
- Exposed electrical wiring
- Asbestos identification
- Potential falling or unsteady walls and debris



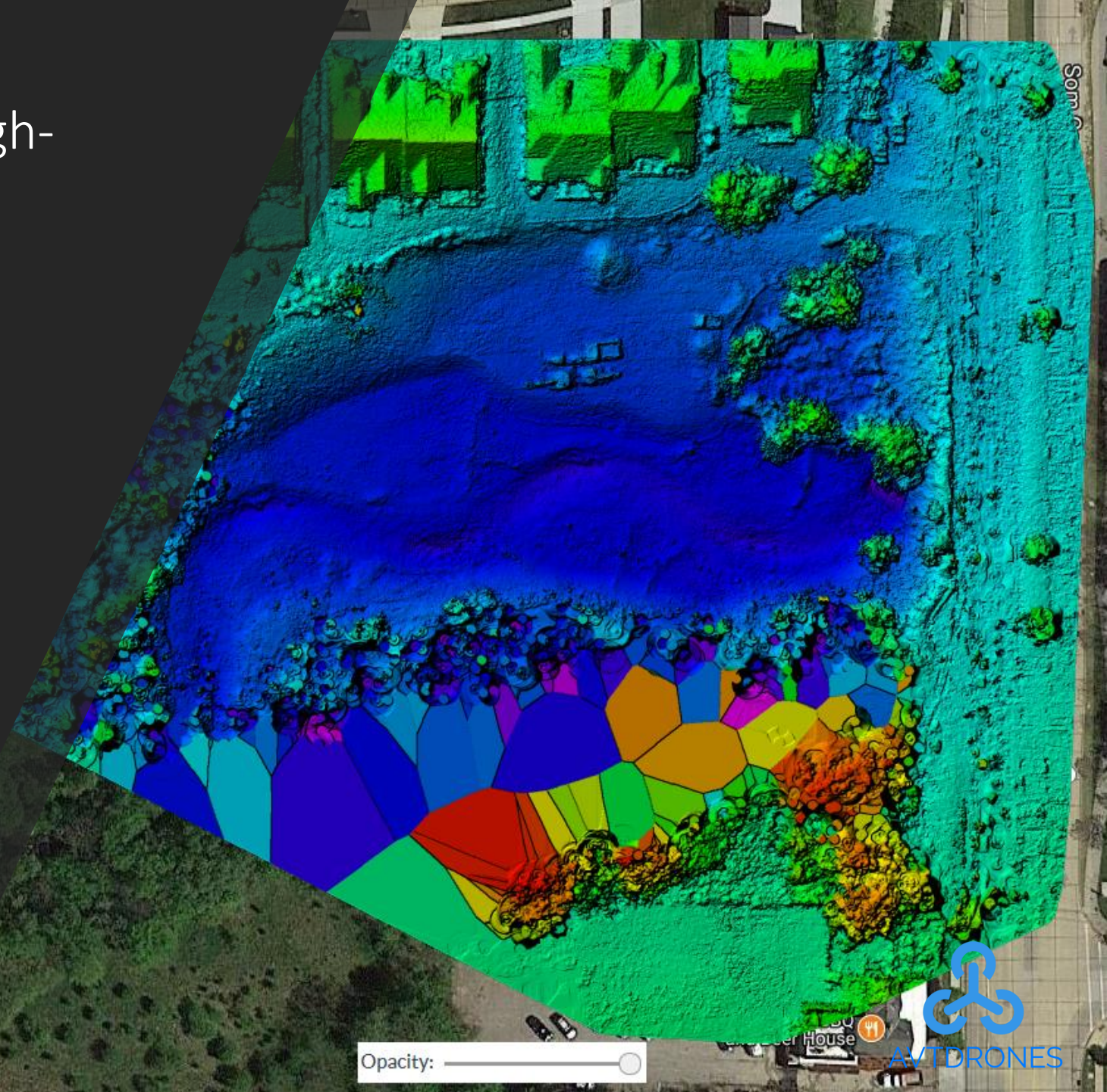
# Drones Provide High-Quality Photography

- 4K aerial video
- HD photography
- Ability to access dangerous areas
- Most quality drones provide Wi-Fi streaming
- Images are geo-tagged for accuracy
- Offers clear evaluations with aerial shots
- Drones can be used to photograph and film both indoor and outdoor



# Drones Generate Accurate, High-Resolution Scans and Maps

- Scan and map multiple acres of land at a single time
- Reduction in terrestrial survey cost
- Generation of high-quality accurate surface, terrain and 3D twin maps
- Hire fewer workers for terrain mapping
- Reduction in accidental injury
- Aerial scans generate geo-tagged point clouds through photogrammetry
- Real-time surface condition capture for better bidding and planning



Opacity:



# Get The Answers You Need With Aerial Data Insights

- Manage stockpiles and material orders
- Gain insights into the entire project with aerial views
- Keep an eye on workers and various parts of the project simultaneously
- Help contractors stay current on all progress
- Develop goal and process charts to document key information
- Manage multiple projects at once with aerial insights and tracking
- Save time on calling site managers and coordinating task with sharable aerial documents



# Aerial Construction Management

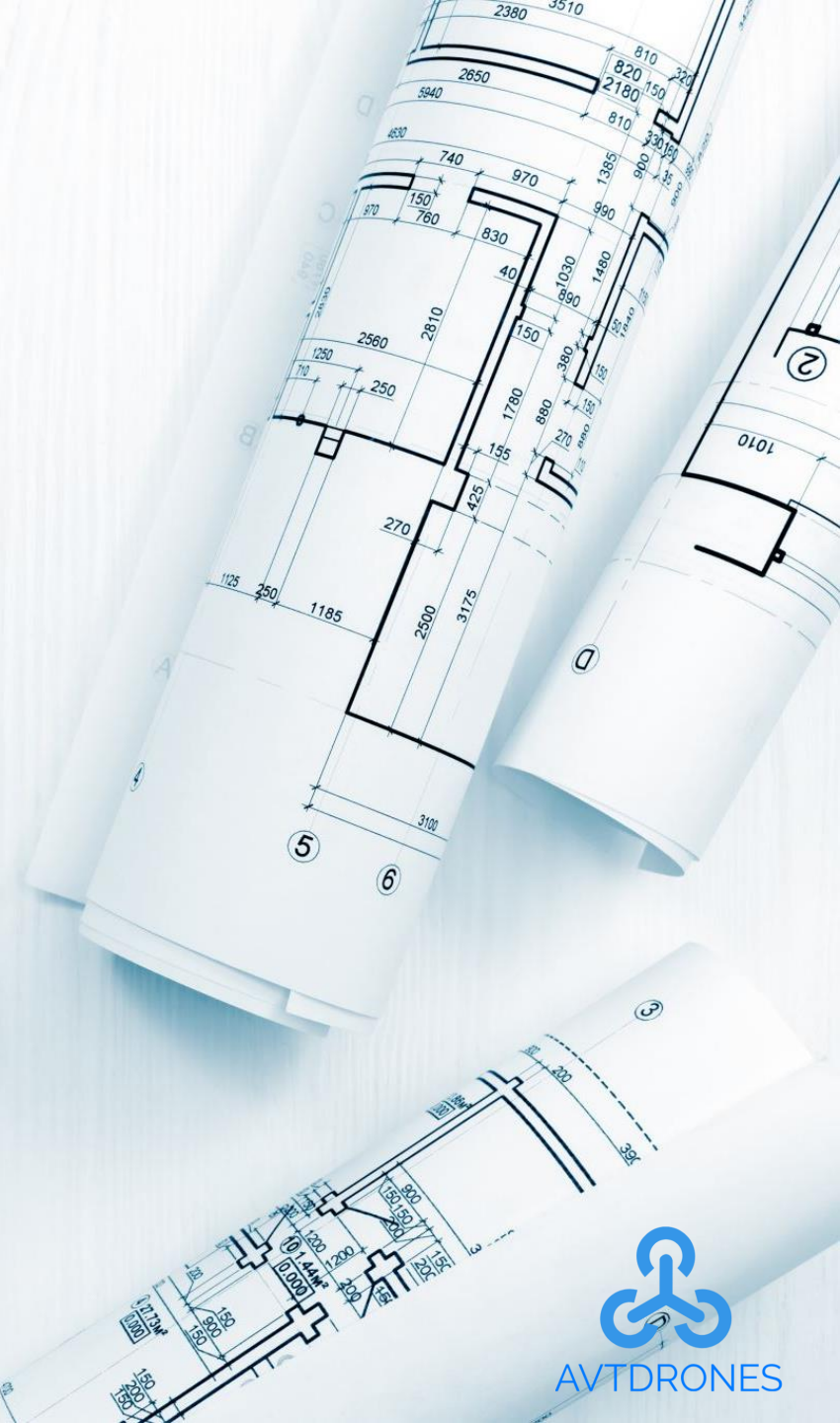
- Projects that typically take hours to survey can be done in minutes
- Visually oversee projects
- Gain better insights into supply orders and material placement
- Ensure that workers are complying with all site safety regulations
- Capture hours of high-quality footage that is easily reviewable from anywhere
- Receive live-stream project updates from the site to your office
- Catch small problems early before they become costly





# Aerial Insights Generate Efficient Updates

- Drones allow for consistent and efficient project updates
- Keep stakeholders, contractors and supervisors informed in real-time
- Drones can take hundreds of photos and video each day
- Aerial data capture is easily managed and stored in the cloud or secured server
- Less effort than walking an entire site in extreme heat or cold
- Drone data is easily sharable between contractors for review and progress monitoring
- Drone footage can be uploaded remotely or on-site



# What Type of Updates Can Drones Provide?

- Consistent project progression imagery to contractors working from home
- Photographic evidence and documentation through all four phases of the construction process
- Drones can be used to scan and analyze the project area and structures
- Generate 3D models and determine terrain levels and types
- Forecast and analyze potential flaws and hazards including sinkholes and prevent naturally-occurring issues from becoming massive problems



# Drones Simplify Project Analysis

## Scan

- Scan surfaces and generate high-quality 3D models and point clouds

## Determine

- Determine terrain levels and types before bid

## Gauge

- Gauge potential hazards, including erosion and unstable terrain surfaces

## Identify

- Identify strange disturbances or bizarre patterns which may indicate subterranean objects or voids

## Drone

- Drone fly-by analysis can prevent expensive repairs and change orders

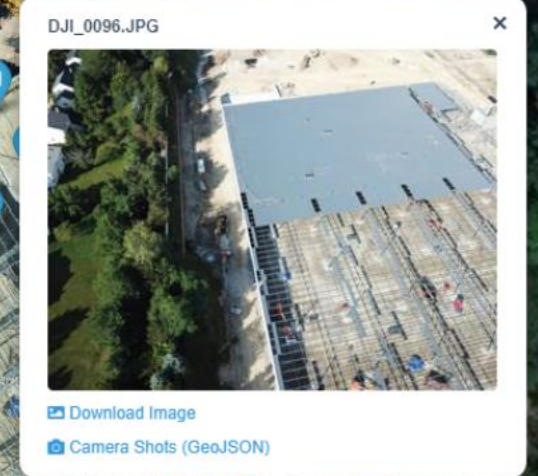
## Haul

- No need to haul heavy expensive terrestrial survey equipment in dangerous areas



# Virtual Evaluations Using Drones

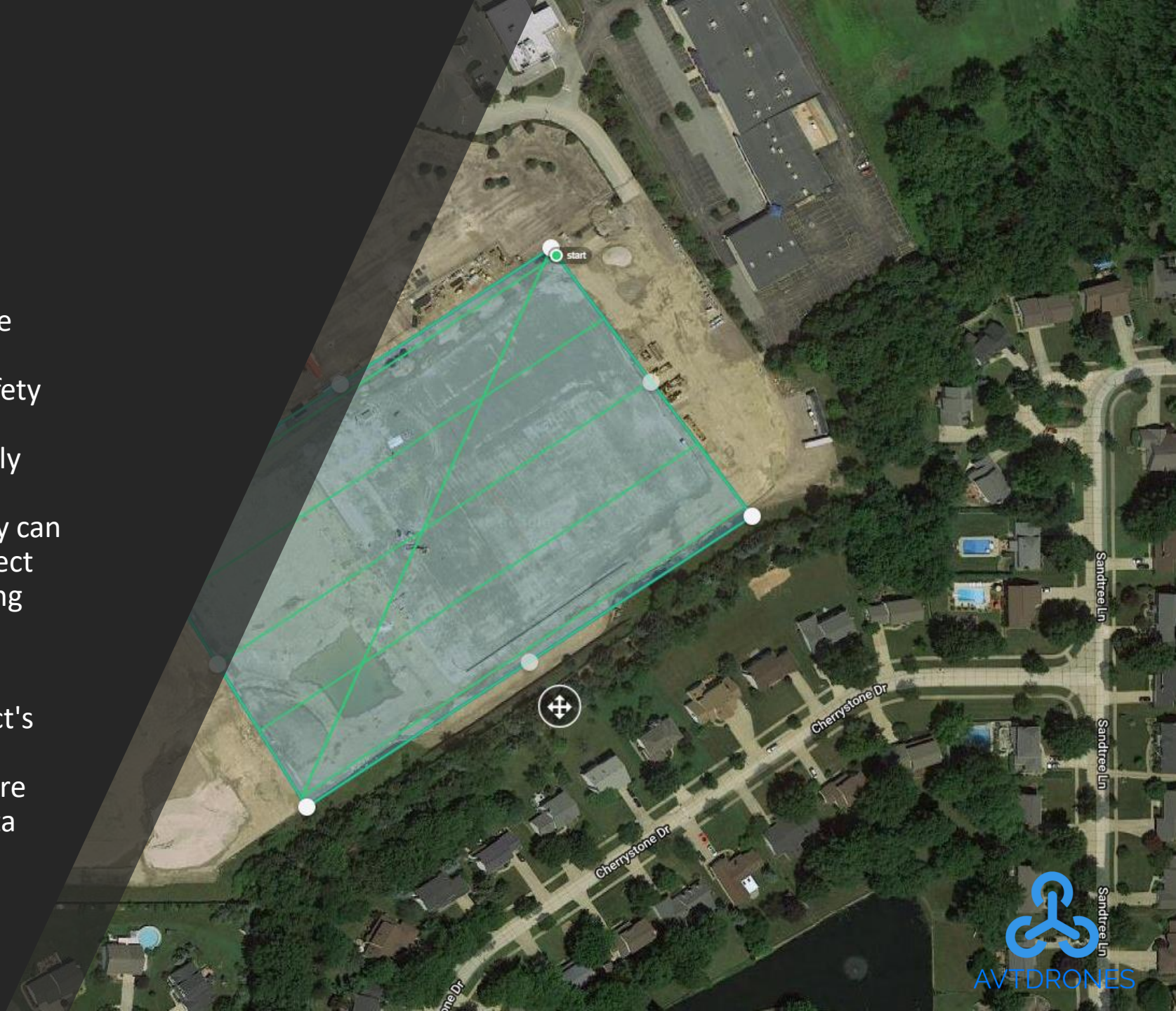
- Site evaluations on foot are time consuming, remote drone evaluations can take only minutes
- Pre and post inspections
- Remotely controlled drones can enter buildings and record high-quality footage of interior and exterior
- Virtual appraisals can be just as successful as an on-site one
- Future appraisals may begin to occur mostly online
- No need for heavy awkward binders filled with paperwork, Drones can digitize the inspection process



# Conclusion

It is very possible for drones to provide multiple benefits to contractors and construction firms. Drones reduce safety risk to workers by flying above or into hazardous or difficult areas significantly reducing the need for workers compensation claims from injury. They can also prove beneficial by mapping project areas, taking aerial images and allowing for quick and easy real-time project updates.

When contractors view all their project's components from the aerial view of a drone, they can take hold of their entire working site and manage workers, data and project task more efficiently.



# Take The Next Step and Speak With Us

---



For Questions or Service Please Reach Out to Us

Robert Nicholson

[robert.nicholson@avtdrones.com](mailto:robert.nicholson@avtdrones.com)

Stephanie Gandy

[sgandy@avtdrones.com](mailto:sgandy@avtdrones.com)

[Click here](#) to schedule an appointment

Phone: 216-545-1397