

Outlook

"Your project. Our passion."

OUR NEW EYE IN THE SKY DRONE ALLOWS US TO SEE THE BIG PICTURE

Johnson Engineering is now offering aerial drone services to our clients, enabling us to see entire projects from above.

Having our own in-house drone pilot allows us to create cost-effective, high-quality drone-based aerial images and video, data for analysis, surveying, aerial mapping, and more. David Isley of the firm's environmental group was the first to receive the required Federal Aviation Administration (FAA) 107-Certified Unmanned Aircraft Systems (UAS) pilot certification.

Our drones use a 12-megapixel camera mounted on a three-axis gimbal, which provides the stability and resolution required for high quality imagery and map production. Drone-based imagery and videos can be used for a variety of applications in the engineering, environmental, construction, mining, and agricultural industries. Examples include:



Johnson Engineering's David Isley, is a Federal Aviation Administration (FAA) certified drone pilot.

- Project and construction progression aerial imagery on a regularly scheduled basis;
- Documentation of pre-construction versus post-construction property conditions for client/contractor protection and liability matters;
- Accurate, cost-effective vegetation and habitat mapping of large properties, sites with difficult terrain, or where site access is limited;
- Documentation of damage from emergencies or natural disasters, such as wildfires or shoreline, canal or lake bank erosion, to expedite Federal Emergency Management Agency (FEMA) reimbursements and support agency permit applications;

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A quarterly publication by:



Summer 2019

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Now Offering
Aerial Drone
Services



2019 FDOT
Transportation
Symposium -
Greenbook
Update



North Fort Myers
Residents Get
New Community
Pool



\$100K Worth
of Equipment
Donated to the
School District
of Lee County



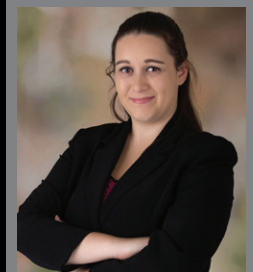
PEOPLE & PROJECTS: ON THE MOVE



Zachary Stone, PE
in the company's Development market group, has successfully earned his Professional Engineering license from the Florida Board of Professional Engineers.



Jess Schroeder
has joined our Water Resources team as an Environmental Scientist. Jess is expected to receive her Master's in Environmental Science from Florida Gulf Coast University this summer.

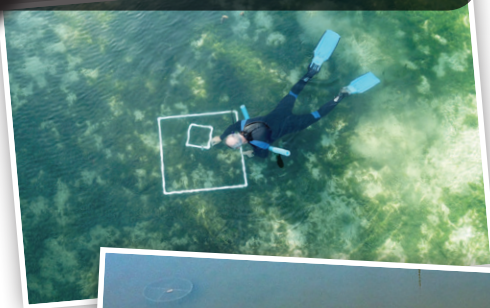


Jessica Westhafer, El
has joined our Transportation team as an Engineer Intern. Jessica earned her Bachelor of Science degree in Civil Engineering from Florida Gulf Coast University.

- Real-time assessments of utilities, mining, silviculture, and agricultural project status;
- Project planning using low level aerial imagery unavailable from traditional sources; and
- Marketing or advertising of recently completed projects.

Drone services are currently being used for the Lee County Department of Transportation (DOT) proposed widening of Corkscrew Road from Ben Hill Griffin Boulevard to Alico Road. The drone-based aerial imagery obtained for this project provides a detailed and accurate depiction of pre-construction conditions within the 4.5-mile roadway corridor. Since the project is near the Southwest Florida International Airport (SWFIA), flight authorizations were handled automatically through the "Autopilot" application, which is directly linked to the FAA air traffic control system and maintains real time authorizations from 24 airports throughout the state of Florida. The mission totaled nearly 10 miles and over 1,000 photographs were taken at an average altitude of 250 feet to produce the final map. Additional drone missions are planned in August or September 2019 to document current drainage and water level conditions along the roadway corridor during the wet season prior to construction.

Senior Ecologist David W. Ceilley performing aquatic monitoring at King's Bay in Crystal River.



We recently employed drone-based aerial photography to monitor the progress of the King's Bay Restoration Project in Crystal River, Florida. The drone obtained captivating low-level aerial photographs of the native aquatic tape grass restoration, which effectively illustrated the monitoring methods performed by our team to the Florida Department of Environmental Protection (FDEP), who is providing funding for this environmental restoration project.

Our Construction Engineering and Inspection (CEI) department is also currently using the drone on the Lee County Division of Natural Resources Nalle Grade Hydrologic Restoration project in North Fort Myers, Florida. Due to the relatively large project size, drone-based aerial imagery provides a more efficient and cost-effective means to monitor the monthly construction progression and verify contractor pay applications. A monthly aerial photo of the entire site more effectively illustrates the project status in a fraction of the time compared to numerous traditional ground-based photos or a narrative description.

If you're interested in adding drone-based aerial or video production services to your existing project or have a new project that would benefit from drone-based aerial imagery or videos, please contact your Johnson Engineering project manager or our Marketing Director, Juli Kern, at (239) 334-0046 or mkt@johnsoneng.com, to discuss how we can best serve your specific needs. ■

The drone captures some locals hanging around the tape grass protective enclosures recently installed in the Caloosahatchee River.



Drone imagery provides an efficient and cost-effective means to monitor monthly construction progression and verify contractor pay applications at Lee County's Nalle Grade Hydrologic Restoration project.

Drone imagery can capture pre-construction, active construction, and post-construction conditions.



Using drone reconnaissance for Phase I Environmental Site Assessments on large properties saves time and money.



NORTH FORT MYERS RESIDENTS GET NEW COMMUNITY POOL

The North Fort Myers Community Pool has served County residents and visitors for nearly 60 years. Lee County Parks and Recreation staff identified that the aging facility required an overhaul to bring it up to codes and meet the needs of the growing community. Our engineers and landscape designers worked with Lee County Parks and Recreation, Lee County Community Development, and Wright Construction Group to put a new community pool in service in an aggressive one-year timeframe.

The ribbon-cutting ceremony for the pool was February 2019, within one year from the first site meeting that brought together team to assess the pool and facilities. In addition to meeting an aggressive schedule, the project came in under the initial estimated budget of \$2 million with actual cost \$1.7 million at completion. Meeting the project goals required seamless coordination with Lee County Parks and Recreation staff and the aquatics engineer to understand how the community uses the pool and what amenities should be included.

The result of that effort is a new pool certified for competition, with an increase from three to eight lap lanes and new lighting for night swims. The design also included repair and replacement of shade structures, new covered pool equipment, accessible pool lift, removable starting blocks, slide, fencing, and gates.



The conceptual plans received unanimous approval from the North Fort Myers Planning Panel, and we moved swiftly into construction plans. In addition to the pool itself, the project included improved site grading and expanded detention areas for site drainage. Parking improvements, a new dumpster area, and new landscaping helped round out the improvements to the facility. The Community Pool not only exemplifies the success of the project team's efforts to complete the improvements on time and under budget, the project is an example of exceeding expectations, and sets the stage for the facility to meet community needs for many more years to come.

For more information, contact Dana Hume at (239) 461-2471 or at dhume@johnsoneng.com and Jeff Nagle at (239) 461-3312 or jnagle@johnsoneng.com. ■

The ribbon cutting ceremony with the key design team and County officials was held at the pool in February 2019.



THE 2019 FDOT TRANSPORTATION SYMPOSIUM

Johnson Engineering's Director of Water Resources, Andy Tilton, PE, recently presented at the 2019 Florida Department of Transportation (FDOT) Transportation Symposium in Orlando. Andy sits on the Florida Greenbook Advisory Committee, so he was able to share updates to the 2020 Greenbook Drainage chapter, which identifies the uniform minimum standards for design, construction, and maintenance for all public roads that are not part of the State Highway System, or FDOT controlled roads.

For more information, contact Andy Tilton, P.E. at (239) 334-0046 or atilton@johnsoneng.com. ■



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Office Locations

Corporate Headquarters
2122 Johnson Street
Fort Myers, FL 33901

2350 Stanford Court
Naples, FL 34112

17829 Murdock Circle, Suite B
Port Charlotte, FL 33948

17900 Hunting Bow Circle
Suite 101, Lutz, FL 33558

251 W. Hickpochee Avenue
LaBelle, FL 33935

201 S. Berner Road, #3
Clewiston, FL 33440

1031 Ives Dairy Road, Suite 228
Miami, FL 33179

Comments, questions or to receive future newsletters electronically, e-mail mkt@johnsoneng.com.
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Engineers | Surveyors | Planners | Ecologists | Landscape Architects | Geologists | Scientists



JOHNSON ENGINEERING DONATES \$100K WORTH OF EQUIPMENT TO SCHOOL DISTRICT

Johnson Engineering donated 45 workstation cubicles and flat file cabinets to the School District of Lee County (SDLC), valuing more than \$100,000. Throughout our last 73 years in business, we have accumulated quite a collection of workstation cubicles, shelves, and accessories. When we built our new corporate office, the adjacent mid-century brick building we originally occupied, became more of a storage space housing decades of office supplies and equipment. Today, a portion of the space is being rented by Lee Health for their cultural transformation training center. We soon realized that this space could be better utilized for our community, so it was time to stop storing and start donating the extra equipment to those who could use it.

The SDLC seemed like the most appropriate choice, knowing it would benefit the students and staff by providing much needed working areas that could be used throughout the school district. The SDLC Maintenance Department spent a better part of a week carefully inventorying and loading up all the workstations and flat files. With donations like this, it's one less thing the District will have to purchase, meaning more funds available to spend on important needs like student safety.

For more information, contact Juli Kern at (239) 334-0046 or mkt@johnsoneng.com. ■

