

Outlook

"Your project. Our passion."

A quarterly publication by:



Fall 2023

In This Issue:

LEE HEALTH CARDBOARD SIMULATIONS AID IN DESIGN OF NEWEST FORT MYERS HOSPITAL

Life-sized 3D cardboard mock-up of rooms for the new Fort Myers Hospital allows Lee Health to test the most efficient use of space prior to design and construction.

The new state-of-the-art Lee Health hospital and medical destination will sit on 52 acres along Challenger Boulevard, between Colonial Boulevard and Winkler Avenue, in the City of Fort Myers. It's slated to open in the fall of 2027 and will potentially offer up to 120 beds.

When designing and planning something as important as a hospital, you want to ensure you are creating the safest, most efficient, and effective facility possible. The best way to do this is through



The cardboard setup allows clinicians to move doorways, walls, and equipment around to ensure both personnel and tools are optimally placed to provide the most efficient patient care possible.

creating real world simulations that allow doctors, nurses, and other healthcare personnel to test out the proposed physical space, floor plans, and flows of various departments prior to design and construction. Lee Health staff and clinicians constructed 3D models of specific areas of the facility by using large pieces of freestanding cardboard to recreate realistic rooms. This allowed the staff to touch and feel as if they were truly in a patient exam room and adjust the layout accordingly.

The room prototypes included patient check-in areas equipped with full workstations, patient exam rooms with exam tables and sitting areas, laboratory and pharmacy layouts, as well as full replicas of the emergency center, and more, all crafted out of cardboard.

CONTINUED ON PAGE 2

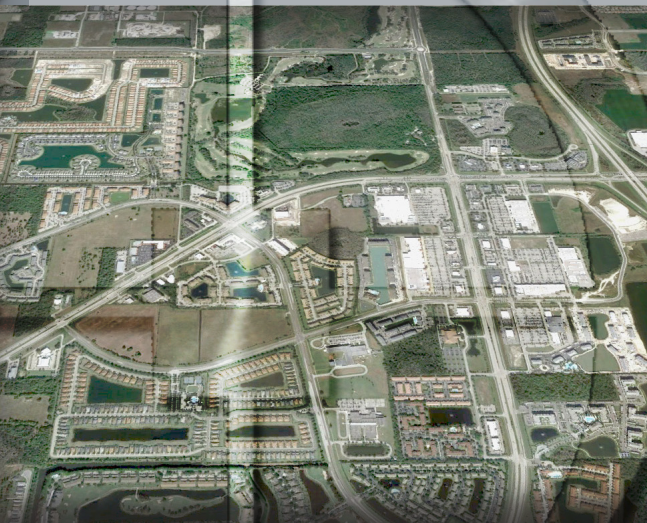
Cardboard Simulations Aid in New Hospital Design



Lined Lake Rehabilitation in Puerto Vallarta, Mexico



School Supply Drive



PEOPLE & PROJECTS: ON THE MOVE



Ryan Bell, PE, PTOE
Director of our Transportation team has been selected to serve as the District 1 consultant representative on the Florida Greenbook Advisory Committee.



Chris Barrett, EI
an Engineer Intern on our Land Development team was recently elected as treasurer for the Calusa Chapter of the Florida Engineering Society.



Danyelle Thorson
joined our team as a Human Resources Manager. Dani earned her bachelor's degree in Human Resource Management and brings 29 years of HR experience.



Jon Wadas, PE
recently joined our Land Development team as a project engineer. Jon has a bachelor's degree from the University of Florida and brings 15 years of experience.

In order to increase efficiency, the team looked at everything, as small as a location of gloves and supplies, to as large as the most proficient location of the surgical equipment, monitors, and booms over operating tables. The team also evaluated the size of the rooms and doorways to ensure they had enough space to bring in any needed large equipment to provide the necessary medical care during critical moments. Handwritten notes on the cardboard walls indicate clinicians' recommendations for where specific items should be located in the final design.

The simulations provided a first-hand experience to test if the new facility's design would work in the real world and not just on paper. Reenacting various medical scenarios gave healthcare professionals the opportunity to shape the delivery of care and improve upon the design, based on their own experience working in a clinical setting.



After the simulations, the staff debriefed and assessed the space to propose various modifications to the design, which is then evaluated for feasibility to incorporate into the final design. The simulations help determine the arrangement and organization of interior spaces to maximize utility and efficient delivery of service. Flad Architects uses this information to refine the building functions and form, and engage with our Johnson Engineering planners, engineers, and landscape architects throughout the process so the design of site features including access, parking, water management, and open spaces are in harmony and lend to the quality of experience for those who work in and visit the facility.

This isn't the first time our team has walked down the cardboard halls. The creative idea of a cardboard simulated facility helped this same team successfully design the Lee Health Coconut Point in Estero in 2016. Having worked on countless other projects with Lee Health, it's rewarding to see their consistent strategy for health, wellness, and well-being. Watching these simulations used so early on in the design phase shows their patient-based, patient-focused design, and their continued commitment to wellness by building the safest, most efficient medical facility possible.

For more information contact Dana Hume at (239) 461-2471 or dhume@johnsoneng.com.



ENGINEERING ON AN INTERNATIONAL LEVEL IN PUERTO VALLARTA, MEXICO

In mid 2020, our water resources team was contacted by the property manager of the elite El Blanco resort in Mexico to inquire about our past experience with lined lakes, which are designed to prevent water percolation and seepage.

El Banco, Puerto Vallarta Mexico's premiere beachfront property, is situated just 30 minutes from downtown on what is arguably the bay's most gorgeous white-sandy beach. The community celebrates the pristine natural beauty of sand and sea with a low-density, high-luxury setting. Included within the community is the recently completed Susurros del Corazón, a member of the Auberge Resorts Collection and featured on Condé Nast Traveler and the Michelin Guide.

Ahead of the resort's opening, the owners of El Banco were looking to rehabilitate an existing 4-acre lined lake located at the entrance to the community. Johnson Engineering was selected to review the existing lake and facilitate its rehabilitation based on our experience designing lined lakes in tropical and subtropical regions. Specific tasks included evaluating the existing lake design and providing design alternatives, including the lake configuration, lining, water supply, and aeration.

Following an initial site visit to investigate the subsurface conditions of the lake and its interconnectedness with the surrounding resort, our engineers prepared a preliminary design report. The report included design improvements and an annual water budget to estimate existing and future potential freshwater sources to keep the lake full for aesthetic purposes and use the lake for treated reuse water storage for irrigation.

Our multilingual design team worked in a cross-cultural setting with a team of engineers in Mexico (who took ultimate ownership of design and construction) to create plans for the new lake. Design elements included a 48-inch reinforced concrete bypass culvert, lake lining material imported from a US-based manufacturer, soil cover that facilitated littoral plantings, lake bottom shape, subgrade preparation, and aeration recommendations. Two additional site visits were made by our team during construction to review progress and check conformance with the project's design intent.

Now complete, the refurbished lake plays an important role in water conservation by storing excess wet season water for irrigation use during the dry season and its banks have become attractive foraging habitat for migratory wading birds.

Throughout this project, the field of engineering and design proved to be universal no matter what country we were working in. This was a rewarding experience for our team and one we hope to be able to duplicate and expand on in future international endeavors.

For more information contact Jordan Varble, PE at (239) 461-2431 or jvarble@johnsoneng.com.



Outlook

Prsrt Std
US Postage
PAID
Ft. Myers, FL
Permit #215

Volume 50, Issue 84



Office Locations

Corporate Headquarters
2122 Johnson Street
Fort Myers, FL 33901

2350 Stanford Court
Naples, FL 34112

17833 Murdock Circle
Port Charlotte, FL 33948

251 W. Hickpochee Avenue
LaBelle, FL 33935

17900 Hunting Bow Circle
Suite 101, Lutz, FL 33558

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

Comments, questions or to receive future newsletters electronically, e-mail mkt@johnsoneng.com.
© 2009 by Johnson Engineering, Inc. All rights reserved. No materials or photographs in this publication may be reproduced without written permission from Johnson Engineering.

1.866.367.4400 | www.johnsonengineering.com
Engineers | Surveyors | Planners | Ecologists | Landscape Architects | Geologists | Scientists



JOHNSON ENGINEERING EMPLOYEES "SUPPORT OUR SCHOOLS" WITH MUCH NEEDED SUPPLIES

Johnson Engineering's "Support Our Schools" initiative grew out of our belief that private enterprise has an ongoing responsibility to contribute to the education and learning of the young people in their local communities. We also believe that their teachers, who play such a vital role in their students' growth and development, are truly the unsung heroes of our communities. They deserve every opportunity possible to have whatever supplies and equipment they need to teach effectively. This perspective led to Johnson Engineering's "Support Our Schools" Program, which is designed to benefit K-12 schools in the counties in which we have offices by participating, sponsoring, and donating to a variety of community relations efforts to directly and positively impact the school's teachers and students.

This fall, Johnson Engineering employees donated hundreds of school supplies to the School District of Lee County and the Pasco Education Foundation's Wise Supplies. Community support is such an important resource for our schools. Improving education resources can better prepare our children who will become our future workforce.

We wish the teachers and students a successful 2023-24 school year!
For more information contact Dana Hume, PE at (239) 461-2471 or dhume@johnsoneng.com. ■

