

Cape Design Engineering Co.

RED LINES

Company Newsletter - Winter 2016

Advancing Healthcare

Eastern Florida State College's new Health Sciences
facility aims to improve healthcare education - Page 3

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REDLINES

Winter 2016

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The Executive Message

Change.

While acknowledging that change is a scary proposition to most people, we also have to acknowledge that we're all in for a year of change.

Perhaps the most dramatic change many of us will ever witness is scheduled to take place on Friday, January 20, 2017, when real estate tycoon Donald J. Trump will be sworn into the highest office of the land. Regardless of personal opinions, most will agree that as recently as a year or two ago, even the notion of uttering the words President Trump would be as shocking as jumping into an icy cold lake in the middle of winter. Some might find that sensation to be exhilarating, while others find it miserable.

Either way, change has come. And more changes are coming. Change is inevitable.

For us here at CDE, this has been a year of change, too.

While not all change is bad, it does require effort from those whom it affects. In January 2016, Lou and Kannan implemented a new management team to handle the company's day-to-day operations. Jokingly we call our little collective the "Brain Trust 5" or "BT5" for short. I know I speak for the rest of my colleagues in the BT5 when I say that it was a change that we each had to adapt too. While we are still employees of CDE, we are also employees who must now lead our family of teammates and this business to future successes.

That wasn't the only change. Really, it is just the tip of the iceberg.

Another major change occurred in August, when CDE moved to a new location. Many of you who have visited our former offices witnessed that it wasn't glamorous or over the top. In fact, I'd say that the best word for both – nine years at the first home and a decade at the second – would be that it was "efficient". CDE called the City of Cape Canaveral home for those 19 years and leaving was tough. However, the decision to move to our new Merritt Island office was based on the need for a positive change. It was time for CDE to graduate into an office space that exudes professionalism and confidence, while also giving us an office with enough space that would enable us to grow. Our new address does just that. CDE is now located in the premier



Sami Mized serves as the Director of Marketing and Information Technology for CDE.

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Moving On Up - CDE Relocates Corporate Headquarters

When CDE was in its infant stages, looking to find its footing first as an engineering company and then as a design-and-build operation, cofounders Lutfi Mized and Kannan Rengarajan thought it prudent to project an image of a hard-working, up-and-coming company, knowing that CDE needed some time to prove itself and build a reputation.

Toward that end, CDE housed itself in humble, working class offices without the frills and panache a client would normally expect from an engineering firm. Lutfi and Kannan especially didn't want to project to potential clients that part of their cost for doing business was propping up plush offices.

So CDE began the first nine years of its life at a modest office building on North Atlantic Ave., before moving around the corner in Cape Canaveral to equally modest digs tucked behind parking lots off Center Street, where it spent the next decade of its life.

But now, 19 years down the road and with its reputation firmly intact and so much of its work coming from repeat clients, CDE earlier this year charged its Director of Marketing, Sami Mized, with finding a new home for the firm, one that projected professionalism without adding to its bottom line cost of renting office space. They especially wanted something with higher visibility, at a better location, with an upgraded use of office space.

"With where we were as a company, our old home was no longer appropriate," Sami said. "It served a purpose and served it very well. We're very appreciative. But we needed something new that conveyed a more professional persona. We really needed something that presented itself better to clients. In the past, people were driving through old parking lots with potholes just to get to us. We needed something that projected an established, professional engineering company."

It took months and a lot of shoe leather and negotiating, but Sami closed in on a gorgeous new home in what is perhaps the premier office building on Merritt Island – the Financial Center At Merritt Square, which is situated in front of the Merritt Square Mall at 775 East Merritt Island Causeway. CDE now proudly occupies Suite 230 on the second floor.



*A View of Previous Locations
TOP 7001 N. Atlantic Ave. (1997-2006)
MIDDLE: 191 Center St. (2006-2016)
BOTTOM: 775 E. Merritt Island Cswy. (2016-)*

The feedback from friends and clients, and especially from its Open House on

Continues on Page 9

Advancing Healthcare

CDE's association with Eastern Florida State College continued this past year with an innovative new Health Science facility the school is building on its Melbourne campus.

The project, which is approximately 60,000 square feet, will teach future nurses, radiologists, physical therapist and other much-needed disciplines in the health and medical fields. But it will be more than just classrooms. The two-story building will house a hands-on educational facility, incorporating hospital rooms and other features that will either simulate or replicate what exists in actual hospitals.

Architectural work for the project was done by Melbourne's BRPH, while CDE provided the electrical, mechanical, and plumbing.

"It's nice to be involved with projects that are local," said Philip Thomas, CDE's Director of Engineering. "When you drive by, you can point to the building and say, 'That was our project. That's what we do.'"

Through the years, CDE has done a handful of projects with EFSC, going back enough years to when the college was still known as Brevard Community College.

Recently, there was the Titans' softball facility at the Melbourne campus, which included, in addition to the actual softball field, public restrooms and a concession stand, locker rooms and the coaches offices. In past years, there have also been classroom additions and a 500-ton chiller replacement at the Palm Bay campus. CDE and the college are also in the early process of what is hoped to be a systematic 10-year renovation of the Maxwell King Performing Arts Center on its Melbourne Campus.

"We really enjoy working with Eastern Florida State College," Philip said. "They've been a good client to work with. They're forward thinking, especially when it comes to building energy efficient structures. With them, it's not just about getting the project completed. More and more, we're seeing a movement toward energy efficiency, and they are at the forefront of that,

which is something we like to do and take pride in. Like us, they're thinking long-term about the environment. So it's nice when everybody has the same goals and they're all aligned."

CDE, after all, has developed a burgeoning reputation in developing energy efficient structures. CDE's design efforts resulted in a LEED Certified Platinum building at Palm Beach State College's Belle Glades campus, a project where CDE increased square footage while reducing energy consumption.

But again, the local new Health Science building at EFSC has a nice personal feel. As Philip pointed out, not only is it gratifying to drive by a facility in your home county and know that you had a part in its existence, but this particular project will also train future health professionals, many of whom will likely forge their careers locally.

"There is such a need in the nursing and the medical profession field," Philip said. "So it's nice to know that we're contributing to that need being met, especially here in Brevard County with our local hospitals and medical facilities." ■■■



The new 60,000 Sq. Foot Health Sciences Teaching Facility at Eastern Florida State College's Melbourne Campus will usher in a new era in medical training to Brevard County students thereby improving the healthcare practice and standards in the community.

A Change Is Brewing

Cheers! Literally and figuratively.

Have you ever wondered how somebody might learn to operate a microbrewery that does double duty as a pub and restaurant? It's a growing entrepreneurial field, one in which Daytona State College is tapping into (no pun intended).

The college wants a hands-on classroom environment where a real pub and microbrewery can be replicated, and it has turned to CDE to repurpose a 2,500-square foot classroom area for just that reason. By the way, the classroom was already repurposed once before by CDE, where it was turned into a lab of sorts that replicated hotel rooms with kitchenettes. And all of it is housed at the college's Mori Hosseini Center College of Hospitality Management, which also happens to be a CDE design-and-build project from back in 2006.

With its School of Hospitality and Beverage Science, Daytona State College's goal is to create a positive community impact with a first of its kind facility in Florida, thus moving its hospitality program into the 21st century by – in the college's words – “taking alcohol design seriously.”

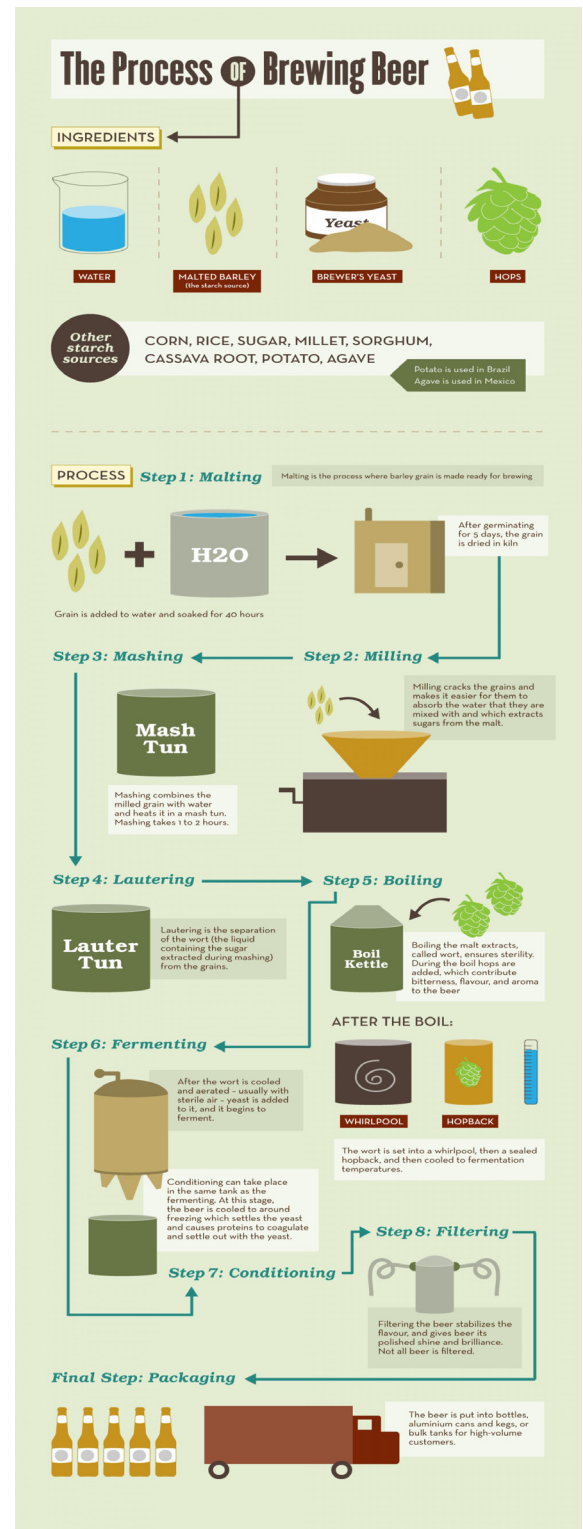
As part of the repurposing project, CDE will do all the electrical, mechanical, plumbing and fire protection. The new classroom will simulate a pub at the front-end, and then, at the back-end, will have all the equipment needed to mass produce beer.

“Basically, the college wants a local brew pub,” said Philip Thomas, CDE's Director of Engineering. “People want to get into that field. Microbreweries are popping up all over the country. Short of going to people who are already doing that as a business, how do you learn that industry? Daytona State College is forward-thinking in that regard. They're a client that is looking to the future and bringing actual jobs to the state. By putting an education and a science behind it, you're providing a fast learning curve.”

Victor Diaz, CDE's Senior Electrical Engineer, is taking the lead on the project, which started in November and is scheduled to be completed by August of 2017, in time for the fall semester.

“What they have now is a classroom and portable cart with the equipment needed to brew beer,” Victor said. “This will be a neat project, as it will simulate an actual pub with the permanent equipment needed to actually brew beer in quantities that you would need if you were running an actual microbrewery.”

Stay tuned for a taste testing. ■■■



Employee Spotlight: CDE Welcomes new Faces!

We desire our friends and colleagues to know that CDE is not just a design and construction firm, but that we really feel like one big family. We would like to introduce you to some new members of our family and some that are familiar!

Ms. Rebekah Reynolds - Anyone who encountered the cheery disposition and unmistakably British accent of Laura Varley, who served for years as CDE's Office Administrator, knew that when she moved up the company ladder to become an Engineering Project Coordinator she was also leaving behind a big desk to fill.

Enter Rebekah Reynolds, perky, pleasant and the first friendly face you see when you enter CDE's new office building.



Rebekah, 20, joined the team at the end of July. After working as the hostess at the famous Bern's Steakhouse in Tampa and then as a Starbucks barista, Rebekah was looking to grow into a new job, and preferably an office job.

"I consider myself to be a very organized person, and an office job where I could use that skill is something I always wanted," she said.

As CDE's new office administrator, Rebekah handles the scheduling – managing the company cars, site visits, luncheons, and in between that she works on the company's specifications. Initially, it seemed overwhelming, but she applied herself and has learned well.

"It was a lot to take on," she said. "Laura made it look so easy. But she's also been a great mentor to me."

"She's a hard worker and she asks a lot of questions," Laura said. "She's grown steadily into the job. She's really been brilliant."

Born in Tampa and raised in the Temple Terrace

area, Rebekah eventually followed her two older sisters who left the city life to move across the state to Melbourne. She quickly fell in love with the smaller city's historic downtown area.

"I love the artsy feel of it, the coffee shops, the festivals, the concerts at night," she said. "It's within walking distance of where I live and I spend a lot of time there."

She also enjoys the nearby beach, sometimes taking runs on 192 across the causeway to Indialantic Beach.

"Since I run and not drive there, I feel like it's okay when I get there to get a pizza," she said with one of her easy laughs.

Mostly, she's enjoying her new job.

"I like that my job is to associate and interact with everybody and help keep everyone on track," she said. "For an office full of braniacs, everyone is very nice. They're all very positive. I'm real happy with my job."



Mr. Trevor Baumann - When Trevor Baumann heard through his friend and Construction Superintendent David Roelandt that there was a construction opening at CDE, he knew it was something he wanted to pursue. He talked to Mark Lueders, CDE's Director of Construction Operations, who liked the young

man. At the same time, though, Lueders needed someone with an OSHA 30-Hour Construction Course certification along with a certification in Construction Quality Management for Contractors.



"Mark told me to get those certifications and then we'll talk," Trevor recalled.

That was going to take time, and Trevor was also engaged at the time, with his marriage just a couple

of months away. Still, he found time to plow into the course work and eventually got the necessary certifications. When he returned to talk to Lueders a few months later, he was happy to learn that the opening was still there – and even happier that CDE offered it to him.

“I always wanted to get into the bigger commercial part of construction,” said Trevor, 21, who has now been with CDE for several months.

Growing up in Titusville, Trevor became interested in construction as a boy. More to the point, a general contractor in his congregation named Tim Smith took an interest in him, seeing that young Trevor could also benefit from a father figure.

“Tim taught me a lot,” Trevor said. “He could see that I wanted to learn, and not just be a guy who could swing a hammer. He gave me books to study and read. I wanted to get a bigger picture of construction, to see what goes into a building project and not just one job, one aspect of it. I wanted to see how all the areas were connected.”

Working for a company like CDE is what he had been looking for. Early in his construction career, Trevor figured out that residential construction wasn’t what he really wanted to do. A bad experience working for a general contractor in New Smyrna Beach also soured him on the tenuous nature of looking for construction work, going from job to job. Being a part of an established company skilled at engineering and construction sounded appealing. So did the words from his friend David Roelandt.

“David told me about all the different things CDE does, especially the bigger commercial stuff the company works on,” Trevor said. “I thought it would be cool to get into. I’d already done some construction on the commercial side, and knew that I liked it. Plus, David told me that CDE was a really good company, and how they treat him really well.”

When he isn’t working, Trevor enjoys being active in his congregation, as well as surfing, fishing and doing anything that involves being outdoors. ■■■

Mr. Steve Steven, P.E. - When Kannan Rengarajan, one of CDE’s cofounders, called Steve Steven a couple of years ago and told him he had a job and could he come in, Steven happily accepted the invitation. After all, Steve knew exactly what he was getting into.



Steve had worked at CDE before, from 2006-12, and knew it was a good company to work for. And Kannan, a Senior Mechanical Engineer himself, knew what a good worker Steve is.

In his time away, Steve had worked for a couple other companies in South Florida, while living at Sunny Isles Beach.

“With larger companies, the style of work is start and stop,” he said. “You have to start immediately and complete everything quickly. Here with CDE the workflow of each project is organized much better. I have a schedule that I can steadily work with. We all work as a team and I like that. With a smaller company, I know that my position is important, and also that what everybody else does is important. Everybody here does their portion of the work properly and we’re very coordinated.”

Steve also was happy that returning to CDE meant escaping the traffic and congestion of South Florida.

Steve, 51, grew up in Belarus, once a part of the former Soviet Union, where he earned a degree from Radio Engineering University of Minsk. He came to America in 2005 and received his citizenship in 2009.

Through the years he has continued to learn his craft and, in general, just kept learning. He can speak five languages with varying degrees of proficiency – Russian, Belarusian, Ukrainian, German, and English. This past year, he also became licensed as a professional engineer in the State of Florida.

“My motivation has always been to be an engineer,” Steve said. “I’ve always felt that I was an engineer. Now I have the paperwork to prove it. But that doesn’t mean I’ve stopped growing. I want to continue to learn. I still have open books on my table at my home.”

With CDE, Steve

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Continued from Executive Message

office building in the heart of Merritt Island, directly in front of the Merritt Square Mall. Please, if you were not able to come for our open house, stop by and say hello. We'd love to show you our new home.

This is now the end of our first year managing the company as the BT5. Honest evaluation of our performance for year one was that we did okay in that transition. With change comes a learning curve, and there certainly was a lot of learning for us to do. But as we learned we also grew and pinpointed things we will be doing better in 2017. It is our goal to ensure that years two, three, and beyond are going to be excellent! Simply put, expect additional changes, all for the betterment of our clients, employees, and the community we serve.

As Director of Marketing, and on behalf of the rest of the BT5 and my fellow teammates, we look forward to makings more changes for the positive. We look forward to reaching new milestones and replacing the status quo.

Yes, change has come. And more changes are coming. Change is inevitable.

In our case, it's been change for the better. ■■■

Continued from Employee Spotlight

specializes in HVAC systems along with plumbing. He's come a long way from his first job as a drafter with the company.

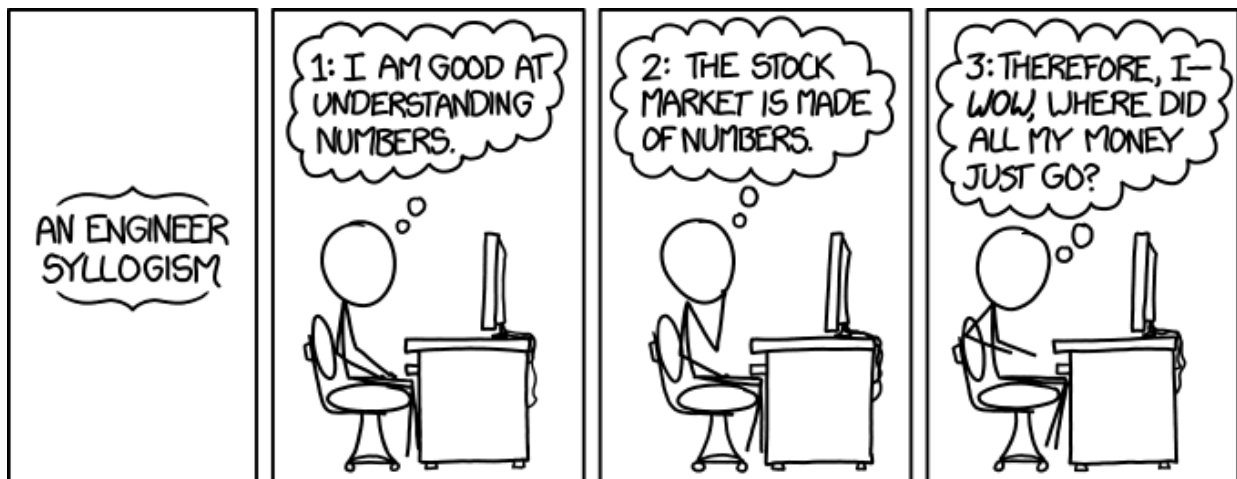
Living in Cape Canaveral means Steve has easy access to the beach, which he's come to especially enjoy. He also likes to work out and searching the Internet for a good movie to watch, whether it be a Russian movie or one made in America.

One thing, however, remains constant: he likes to work.

"Of course I have to work because I am not a king or a prince." Steve said with a smile. "But at the same time, I like engineering work and I cannot imagine my life without it." ■■■

Engineering Humor

xkcd



www.xkcd.com

Construction Stories: Tales From The Field



Not all jobs are sexy. Some are simply necessary. For instance, what would be a building without a proper roof? You don't normally think about a roof until you need one – or, in the case of the Space Station Processing Facility, you need a new one.

It might not sound like much, especially considering it's a flat roof. But when you consider that the new roof needed at SSPF, located at the Kennedy Space Center, covers 220,000 square feet and is atop a two-story structure reaching as high as 75 feet ... well, it's quite an undertaking.

CDE did the design for the new roof and is now overseeing its installation. The project started in the design phase in mid-2015, with construction beginning about a year later. It will be finished in 2017, with CDE ensuring that it is completed in accordance with design drawings, specifications and contractual provisions, while also providing inspections to maintain contract quality control for safety while the project is active.

For CDE, that falls under the watchful eye of veteran Construction Superintendent David Roelandt.

"I serve as the voice between the government and the contractor, while overseeing the whole installation process," he said. "It's a large project. You might think of it as re-roofing a whole mall. And given that it's up so high, it can be challenging to do things like just getting hot tar up there. We also have to make sure we meet updated code changes since the structure was last re-roofed, back in 1991. That meant taking it down to the metal deck. We also provide structural engineering support for unforeseen site conditions that arise during construction."

SSPF is an important structure, housing vital Space Station equipment. ■■■



*TOP: Safely replacing damaged decking
MIDDLE: Prepare roof surface with the VAB in the foreground
BOTTOM: This roof protects millions of dollars of scientific equipment destined for outerspace*

Continued from Moving On Up

October 26, was immediate and overwhelming.

“Everybody was very impressed,” Sami said. “The common comment we heard was that it had a real feel of a professional engineering firm.”

Again, CDE would never want to minimize its former homes. They served an important purpose, sort of like a starter home, and are a memorable part of the company’s history. But it was time to project an image of an established company without the worry that the cost of an upgraded home would be passed on to repeat or future clients.

And it needed to be accessible, because not only wasn’t CDE’s old address not easily accessible, the former digs were spread out over two floors, which created a choppy working environment and likely detracted from time being used in the most efficient and productive way. So even though CDE’s new home is roughly 500 square feet smaller – from 7,600 to 7,100 – it feels much bigger. The smart, economic layout of the new office flows. Plus, other than adding infrastructure to make one extra office, CDE didn’t have to do anything more before moving in.

“I love this place,” said Kannan. “The common feedback I’ve heard from our clients is, ‘Finally, you guys have moved into a real engineering office. This really looks like a professional office.’ Personally, I like the layout. It’s more productive, more interactive.”

Lutfi added that with a three-year lease that includes daily office cleaning and the electricity costs rolled in, “it’s almost a wash from what we were paying before to what we’re paying now. That was important to me. I wanted to keep our overhead low so that it would not impact our clients in any way.

“It also projects a good image. It’s professional looking. Now that we’re an established company, we have a reputation, and we needed a new home that would match that reputation. And we also have room to grow. We could add six to eight new employees right now without having to change anything.”

Not to be overlooked – but to be looked out – is that CDE’s new home has windows, and lots of them, something its old home didn’t have. It creates a more open feel for an office environment, with a bright, sunny atmosphere. Studies show that natural light is always better than artificial light.

“Just having windows with outside light coming in improves employee morale,” Lutfi noted.

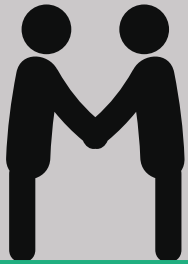
Many other little things mean a lot. There is a professional conference room that can hold up to 20 people. A nice break room. Restrooms on the same floor. An inviting reception area. All in all, CDE’s new home has 16 closed-door offices, two conference areas (which includes the large conference room), a production area with work stations available for 10 people and plenty of sunlight streaming in.

And last, but certainly not least, is that given its location in the heart of Merritt Island, there are plenty of lunch options. There is everything from the food court at Merritt Square Mall to Outback Steakhouse, Bonefish Grill, Chili’s, Applebee’s, sub shops, sushi restaurants, the typical fast-food fare and a whole host of other gastronomical offerings, as well as a nearby Starbucks. Several are even within walking distance.

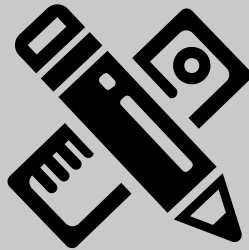
“This feels right on so many levels,” Sami said. “It also feels like it will be the final home for CDE.” ■■■

The Project Board

It's been a very busy year here at CDE for both the Engineering and Construction divisions. We thought that we would share a little infographic with some information about new projects, projects underway, and those that have recently been completed. Of course, this isn't all that CDE has done this year, but these are the most recent happenings at our offices.



JUST AWARDED



UNDER DESIGN



BEING BUILT



FINISHED PROJECTS

- Eastern Florida State College Palm Bay Campus Generator Replacement Design
- Daytona State College Building 300 Renovation
- Chilled Water Master Plan for Palm Beach State College Lake Worth Campus
- ITL Ordinance Area Pavement Modification and Stormwater Permitting for United Launch Alliance
- Inspection Services for Pinecastle Range Towers
- Upgrade PWD Office Spaces for Naval Support Activities Orlando

- Ditz Commercial Office Building Renovation Project
- Eastern Florida State College Melbourne Campus New Student Union Building
- Gas Piping Modifications at numerous building for UCF
- School of Hospitality and Beverage Science Remodeling at Daytona State College Mori Hosseini Center
- Building 20 HVAC Renovations for Eastern Florida State College Cocoa Campus

- Construction Services for NASA SSPF Roof Replacement
- 500 Ton Chiller replacement at Eastern Florida State College Palm Bay Campus
- Design/Build Complex 25 Ranch House
- Chiller replacement at Palm Beach State College Eissey Theater
- UCF Engineering II and Bioscience Lab Exhaust Fan Renovations
- UCF Education Building Boiler and AHU Replacement Project
- Historic Springs Park Pool at Green Cove Springs

- UCF Wayne Densch Facility Sports Complex Expansion Design
- New Health Sciences Building at Eastern Florida State College Melbourne Campus
- UCF Research Optics Laboratory Renovations
- UCF Engineering I Liquid Nitrogen System Design
- REEF Boutique Resort Hotel at Anguilla BVI
- NASA VAB High Bay 3 Stairway Tower Evaluations

Cape Design Engineering Co. would like to thank all of its clients and partners for their continued patronage! We look forward to another great year working with all of you as we accomplish great things!

CDE COMPANY

engineering :: design/build
construction

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