



Passion

Excellence

Dependability

Thoughtfulness

Full-spectrum contracting solutions with a human touch.

Experience:

CDE is your trusted design-build partner for innovative energy, sustainability, and LEED compliant projects in Florida.

Cape Design Engineering (CDE) is a certified EDWOSB in Melbourne, FL. We deliver service excellence in Design Engineering, offering on-time, budget-friendly solutions in MEP and structural engineering, building, and property renovation. Since 1997, we've been dedicated to delivering quality engineering and construction services across various disciplines. CDE is committed to turning your concepts into reality efficiently and effectively.

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Design Engineering

- MEP Engineering
- Structural Engineering
- BIM Modeling / Energy Simulations
- LEED / Energy Conservation
- PV / Solar Designs
- Peer Review
- Wind and Seismic Analysis
- Failure Analysis
- Renovation / Retrofit / Modernization Design
- New Construction Design
- Special Inspections
- Investigations / Forensics
- Cost Estimation / LCCA
- Post-Catastrophe Response
- Dune Walkover Designs

Construction

- New & Existing Construction
- Contract Management
- Demolition
- Vertical / Horizontal
- Government / Private
- Commercial / Industrial
- Underground / Infrastructure
- Safety / Communications / Logistics Planning
- A&E Support
- Constructability Study
- Estimating / Design Budget Validations
- Quality Control Services
- Inspection Services
- Facility Stabilization
- Emergency Response

Florida Certified General Contractor

- ✓ Fully integrated inhouse design and build
- ✓ Successful environmental compliance and management
- ✓ Over 200 construction projects managed
- ✓ Over 3,500 completed design projects
- ✓ Project size from \$200K to multi million dollars
- ✓ CQM-C certified managers and superintendents
- ✓ Quality assurance and control plans for the design and construction phases
- ✓ Currently operates in 10 states and the District of Columbia (DC)
- ✓ Past performance of over \$120 Million Dollars in support of the US Military, the DoD, NASA and other federal agencies
- ✓ DCAA-audited financial system
- ✓ Integrated safety planning, training, and controls
- ✓ Specialized services and products available

Contact Us

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Our Clients



8-koi® is a dynamic woman-owned small business ready to help you meet your government contract procurement and delivery goals.

Innovative Sustainable Design Engineering & Construction



Palm Beach State College

Belle Glades Technical Education Facility and Chiller Plant

The Technical Education Center (TEC) at Palm Beach State College, spanning 33,982 square feet, stands as the institution's inaugural LEED Platinum Certified Project, consolidating vocational training and certification programs. Designed by CDE, the building encompasses vocational classrooms, administrative offices, and support services for programs like Welding, Construction Trades, Law Enforcement, and Cosmetology, with provisions for future expansions including Heavy Duty Truck and Bus Mechanics. CDE's contributions extend to plumbing, fire protection systems, electrical distribution, and renewable energy integration, including a greywater system for rainwater collection and energy-efficient design elements. Moreover, CDE's enhancements to the Belle Glades campus chiller plant, such as replacing chillers and upgrading cooling towers, have notably reduced campus energy consumption, showcasing a commitment to sustainability and efficiency.



Daytona State College

Daytona State College Thermal Energy Storage System

CDE was tasked in 2012 with studying a thermal storage system (TES) for Daytona State College's Daytona campus, aiming to implement a system that produces ice or chilled water during off-peak hours to cool buildings during peak demand periods. Following a review of options, CDE recommended a 2.5-million gallon chilled water storage tank based on energy cost savings and lifecycle analysis. Daytona State College secured funding for the \$3 million project estimated by CDE, with construction starting in 2013 under CDE's oversight. The project, commissioned by CDE in the summer of 2014, achieved annual energy cost savings exceeding \$200,000, leading to Florida Power & Light offering incentives totaling over \$1.1 million. The project's success was celebrated with a ribbon-cutting ceremony on November 20, with praise for Pond and company's architectural design blending the tank's appearance with the campus aesthetics. Overall, the installation marked another successful TES implementation, showcasing the collaboration's effectiveness and cost-saving benefits.



NASA / Kennedy Space Center

NASA's SSPF Science Annex

The SSPF Science Annex, situated near the Kennedy Space Center, functions as a vital science laboratory supporting manned space missions. Constructed and commissioned by CDE, the building boasts comprehensive design and construction, ensuring 100% system redundancy and resilience against single-point failures, with all aspects modeled using BIM. Challenges included maintaining precise temperature and humidity control across diverse spaces within a constrained area, requiring innovative solutions like a mezzanine to house extensive mechanical systems. Architecturally, the building had to be airtight and moisture-proof, with pressure relationships maintained over varying airflow rates. Commissioning involved rigorous testing of systems to address potential failure scenarios. Energy-saving measures, including chilled water systems, VFD controls, occupancy sensors, demand-controlled ventilation, and high-efficiency boilers, were incorporated, resulting in a 35% energy savings compared to conventional designs, with the building achieving LEED Silver Certification.



University of Central Florida

UCF Wayne Densch Expansion Building

CDE contributed design engineering support to this 2017 university athletics project consisting of a new 40,000 square foot building located between the existing Wayne Densch Athletic Offices and the Nicholson Field House. This two-story building includes training rooms, classrooms, locker rooms, and offices. Constructed in multiple phases, CDE's design team worked within UCF's budgetary constraints and university design standards with sustainability in mind. CDE designed the first phase "shell building" with first and second floors, exterior walls, windows, doors and storefront systems and roof. The design also included interior fire-rated corridors to provide egress from the Wayne Densch Center to the exterior on the first floor and similar corridors leading to the egress stairs on the second floor.



Indian River State College

Brown Center for Innovation and Entrepreneurship

As preferred structural engineering partner, CDE collaborated with Florida Architects, Inc. to complete the design of a 65,000 square foot educational facility for Indian River State College in Fort Pierce, FL. Completed in 2012 at a construction cost of \$14M, the building focuses on Alternative Energy and Sustainability, housing technical facilities, laboratories, offices, and conference rooms within a two-story wing and a three-story administration area. It serves as a hub for academic, technical, and entrepreneurial learning in green industries like Nanotechnology and Photonics, featuring open-air classrooms, multimedia classrooms, and laboratories for hands-on training. The facility earned LEED® Gold certification for its use of green building materials, energy-saving solutions like photovoltaic roof panels, LED lighting, wind turbines, solar panels, and eco-friendly landscaping.