



CEC Group, LLC

## Mechanical and Electrical Engineering Consultants

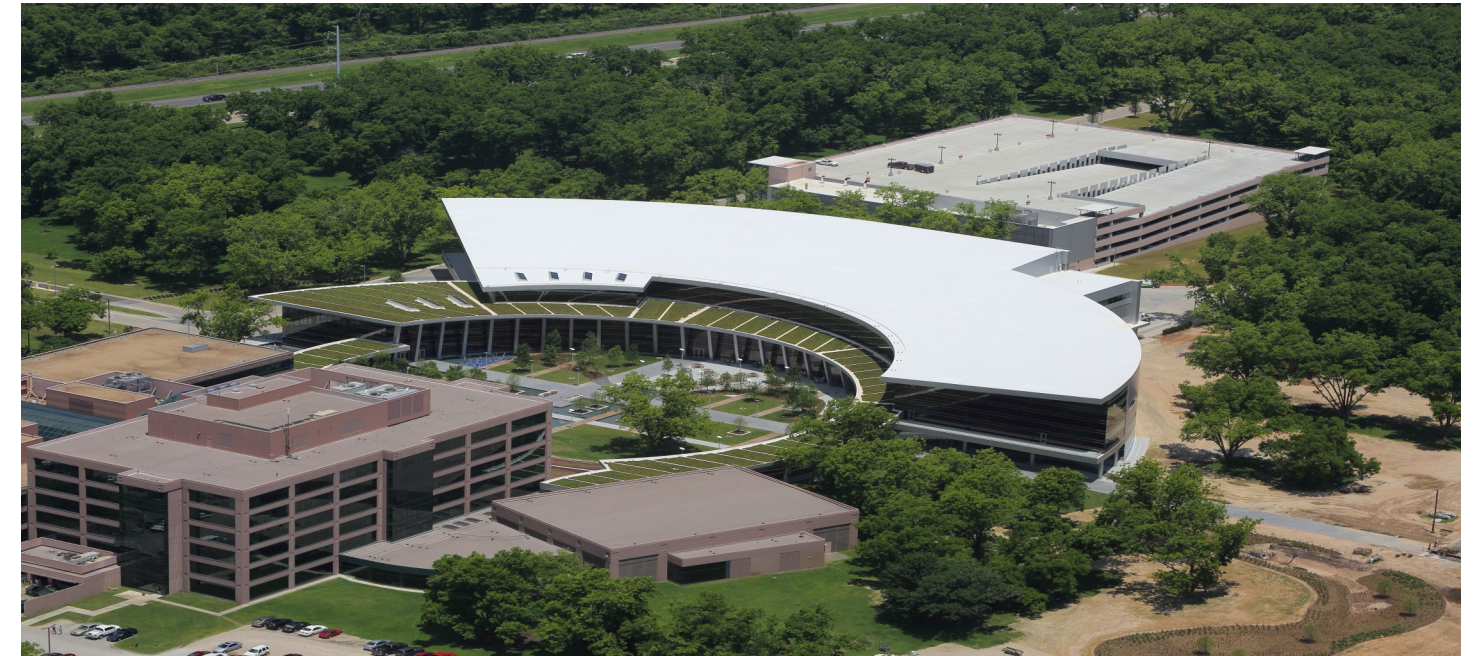
Location

6820 Lauffer Road  
Columbus, Ohio 43231  
Tel 614-392-2902  
Fax 614-392-2907  
[www.ceclimited.com](http://www.ceclimited.com)

## Contacts

Michael Loy, PE  
President  
Direct: 614-392-2902 x 202  
[michael.loy@ceclimited.com](mailto:michael.loy@ceclimited.com)

Ed Geraghty, PE  
Director of Engineering  
Direct: 614-392-2902 x 205  
[ed.geraghty@ceclimited.com](mailto:ed.geraghty@ceclimited.com)

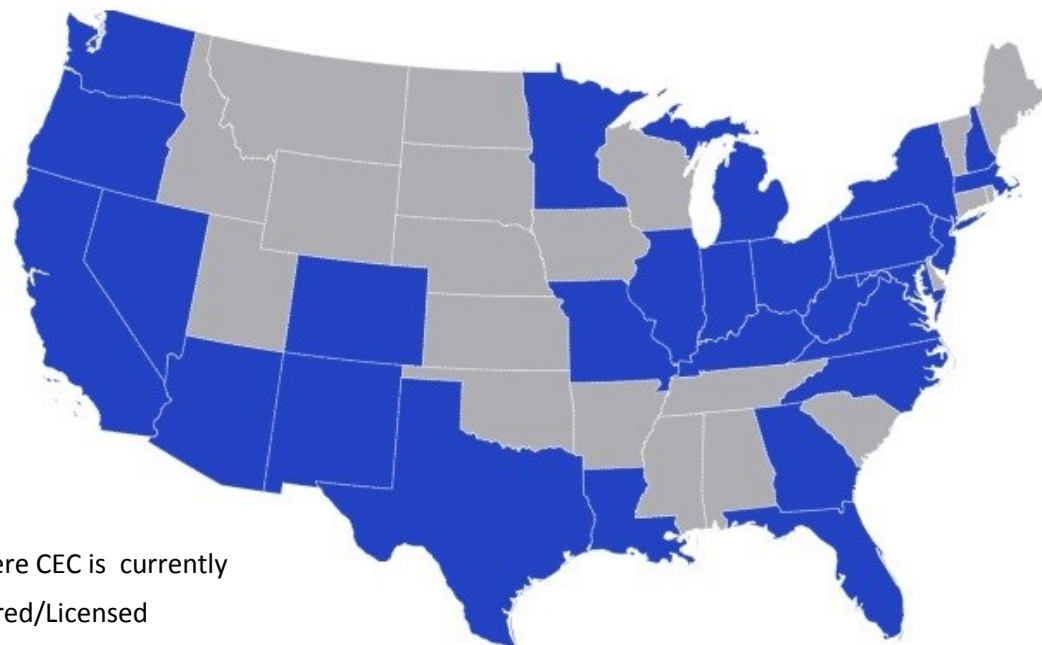


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*Mechanical and Electrical Engineering Consultants*

## MISSION CRITICAL : DESIGN-BUILD : COMMISSIONING

## National Professional Engineering Licensure



■ States where CEC is currently Registered/Licensed





# CEC Group, LLC

CEC Group, LLC was established to provide Turnkey Infrastructure Solutions to the Telecommunications and Data Center Industry. With over 25 years of experience in this field, CEC is a leader in Electrical and Mechanical design.

CEC gives life to new structures and sustains life in existing ones through planning, designing, installing, operating, maintaining, and protecting dynamic systems, which are the foundation of Mission Critical Facility environments. CEC’s services include Electrical, HVAC, Fire Protection, and Plumbing Engineering for a diverse range of businesses and organizations.

Whether it is DC or AC power systems, critical infrastructure systems, communications equipment or power equipment installations, CEC will plan, design and implement according to a client’s needs, regardless of the complexity or size of the project.

CEC prides itself in implementing customers’ needs expeditiously until the successful completion of the project.



## Design Build Services

- ◆ Project Planning and Budgeting
  - ◆ Business Case Preparation and Presentation
  - ◆ Mission Critical Facilities:
    - Data Centers
    - Telecom Sites
    - Cable Hubs
    - Video Headend
  - ◆ Fire Protection
    - Pre-Action Fire Protection
    - Gaseous Fire Suppression
    - VESDA Systems
- ◆ Electrical Infrastructure New or Replacement
    - Electrical Service Upgrades
    - Standby and Emergency Generators
    - UPS, ASTS and PDU
    - 48V DC Systems and Distribution
    - Electrical Power Monitoring Systems
    - Fault Current, Coordination and Arc Flash Hazard Study
    - NETA Testing
    - System Commissioning
- ◆ Mechanical Infrastructure New or Replacement:
    - Chillers
    - Cooling Towers
    - Pumps
    - Air Handling Units
    - CRAC and CRAH Units
    - Fuel Oil Systems
    - Building Automation and Controls
    - Testing and System Balancing
    - System Commissioning

## Construction Services

- Construction Management:**

  - ◆ Contractor Qualification Review
  - ◆ Equipment Selection & Recommendations
  - ◆ Bidding and Bid Evaluation
  - ◆ Procurement
  - ◆ Contract Administration
  - ◆ Scheduling
- ◆ Shop Drawing Review
  - ◆ Field Inspection
  - ◆ System Start Up & Testing
  - ◆ Construction Monitoring—Progress & Quality
  - ◆ Construction Budget Monitoring
  - ◆ Claims/Change Order Management
  - ◆ On Site Field Supervision
- Project Management:**

  - ◆ Engineering/Architectural Services
  - ◆ Budget Monitoring
  - ◆ Cost Estimating
  - ◆ Constructability Reviews
  - ◆ Bidding/Construction Documentation

## Consulting Services

- Electrical Engineering:**

  - ◆ Commercial, Institutional, Telecommunication & Industrial Facilities
  - ◆ In Depth Feasibility/Risk Analysis Studies
  - ◆ Short Circuit & Coordination Studies
  - ◆ Emergency Power Systems
  - ◆ Primary Distribution & Substation Systems
  - ◆ Interior & Exterior Lighting Systems
  - ◆ DC Power Systems
  - ◆ Fire Alarm and Life Safety Programs
  - ◆ Security Systems
  - ◆ Co-Generation
  - ◆ Building Monitoring Systems
  - ◆ Commissioning
- Mechanical Engineering:**

  - ◆ Commercial, Institutional, Telecommunication & Industrial Facilities
  - ◆ Heating, Ventilating & Air Conditioning Systems
  - ◆ Steam & Hot Water Boiler Systems
  - ◆ Central Chilled Water Systems & Plants
  - ◆ Specialized Industrial Process Water Systems
  - ◆ Industrial Pneumatic Conveying Systems
  - ◆ Specialized Exhaust, Ventilation & Make-Up Air Systems
  - ◆ Operating Room, Clean Room & Laminar Flow Systems
  - ◆ Data Center Cooling & Humidifying Systems
  - ◆ Specialized Process Control Systems
- ◆ Automatic Temperature & Humidity Control Systems
  - ◆ Environmental & Air Quality Studies
  - ◆ Life Cycle Cost & Energy Usage Projection Studies
  - ◆ In Depth Feasibility/Risk Analysis Studies
  - ◆ Commissioning

**Fire Protection Engineering:**

  - ◆ Wet Type Sprinkler Systems
  - ◆ Dry Type Sprinkler Systems
  - ◆ Double Interlocked, Pre-Action Sprinkler Systems
  - ◆ FM 200 Systems
  - ◆ Electric or Diesel Type Fire Pumps
  - ◆ Stand Pipes and Hose Cabinets

## Commissioning Services

- Mechanical Systems:**

  - ◆ Chiller/Cooling Tower Systems
  - ◆ Computer Room Air Conditioning (CRAC) Units
  - ◆ Dry Cooler/Glycol System
  - ◆ Floor Air Pressurization
  - ◆ Air & Water Balance Review
  - ◆ AHU/RTU Systems
  - ◆ VESDA Systems
  - ◆ Fire Alarm & Protection Systems
- Electrical Systems:**

  - ◆ Standby/Emergency Systems
  - ◆ Generator Paralleling Systems
  - ◆ Automatic Transfer Systems
  - ◆ Uninterruptable Power Systems (UPS)
  - ◆ Switchgear and Switchboards
  - ◆ Revenue Grade Metering
  - ◆ Short Circuit/Coordination Arc Flash Study
- ◆ Battery Monitoring System
  - ◆ BMS/EPMS
  - ◆ Emergency Power Off (EPO) Systems