AIEIC Consulting, Forensics, Management

Architecture | Engineering | Construction | Environmental

Solving complex problems for the built environment

Healthcare Facilities Management Society of New Jersey

Introduction

- Who is CCA?
- CCA's BAS Mission
- Building Automation Services
- Healthcare HVAC Control
- What makes us different?

Who is CCA?

CCA, Construction Consulting Associates LLC

- Offices on East Coast – Licensed Professional Engineers across multiple states.
- Over 30 years in business
- Complete Evaluation, Design, Construction:

  Engineers, Architects, Building Experts, Construction & Project Managers
- Assessments – Building envelope, facades, structural, civil, mechanical etc.
- Emergency Response – Root cause analysis
- Litigation Support - Qualified Expert Testimony

SOLVING COMPLEX PROBLEMS FOR THE BUILT ENVIRONMENT

TRUSTED ADVISORY FROM PROBLEM TO SOLUTION

CCA's BAS Mission

- Our goal is to provide vendor and product agnostic solutions that support our clients' needs and goals.
- An extension of customers engineering team when they need additional support.

We represent you!

A/E/C Consulting, Forensics, Management
Architecture | Engineering | Construction | Environmental

Building Automation Services

Engineering & Software Reviews

Energy Savings & Cx

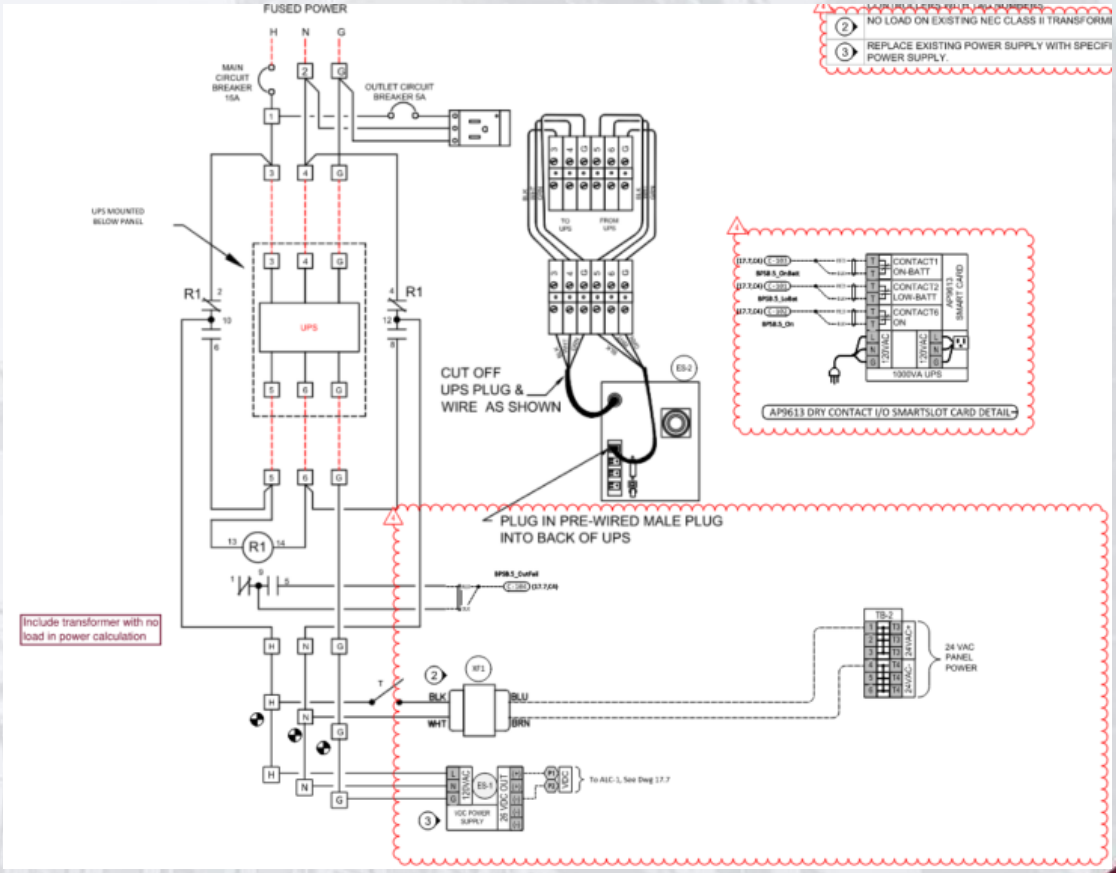
Owners Project Manager

Single System Overlay

OT Security

Engineering & Software

- Review system engineering or as-built documentation to ensure alignment with client standards.
- Work with customer to create standards if they do not exist. CCA will create standard points-list requirements, interlock wiring etc.
  - Graphics
  - Trending / historians
  - Scheduling
- Alarm rationalization, we will work with your team to get control of the alarm log.
- Redundancy requirements and back up power, N+1, back up data bases etc.

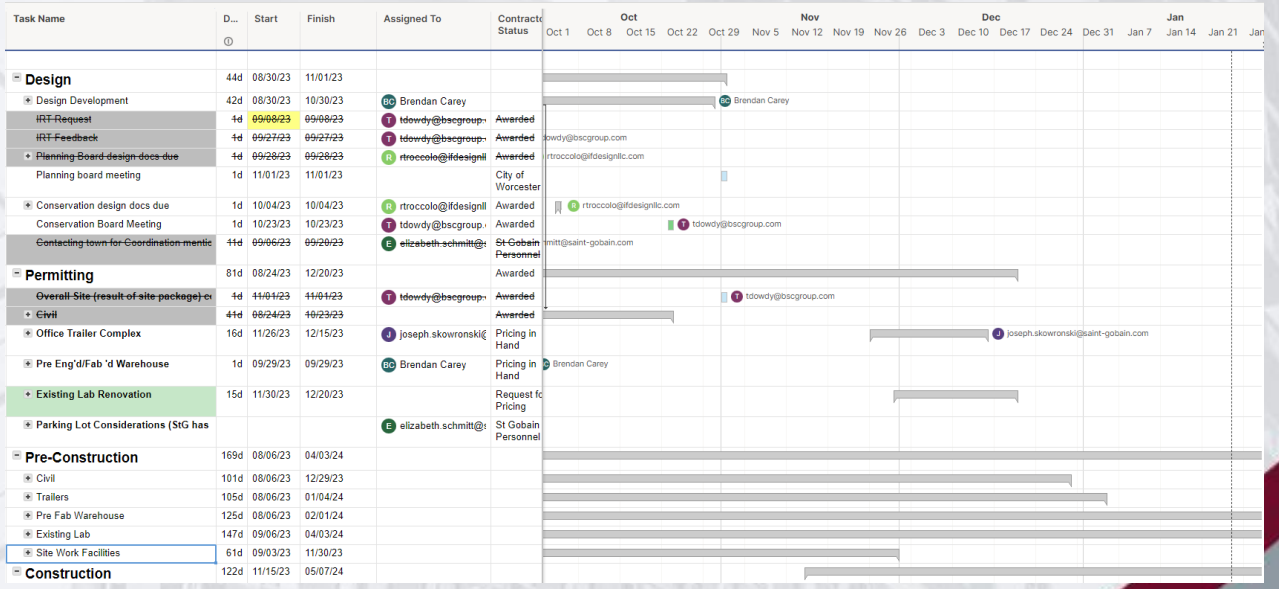


Energy Savings & Cx

- Traditional point to point Commissioning
- Digital Commissioning & Digital Retro Commissioning
- Sequence of operations reviews
- Identifying energy saving measures
- Creation of commission documents

Owner's Project Management

- Project Management services as client representative with BAS/EMS expertise.
- CCA performs this service with mechanical and electrical installs as well as software upgrades.
- If a Project Manager is already assigned, CCA can stand in as a technical resource to support PM if needed.



Task Name	D...	Start	Finish	Assigned To	Contracte Status
Design	44d	08/30/23	11/01/23		
Design Development	42d	08/30/23	10/30/23	Brendan Carey	
~~IRT Request~~	~~1d~~	~~09/08/23~~	~~09/08/23~~	~~tdowdy@bscgroup.~~	~~Awarded~~
~~IRT Feedback~~	~~1d~~	~~09/27/23~~	~~09/27/23~~	~~tdowdy@bscgroup.~~	~~Awarded~~
~~Planning Board design docs due~~	~~1d~~	~~09/28/23~~	~~09/28/23~~	~~rtroccolo@ifdesignll~~	~~Awarded~~
Planning board meeting	1d	11/01/23	11/01/23		City of Worcester
Conservation design docs due	1d	10/04/23	10/04/23	rtroccolo@ifdesignll	Awarded
Conservation Board Meeting	1d	10/23/23	10/23/23	tdowdy@bscgroup.	Awarded
~~Contacting town for Coordination mentic~~	~~11d~~	~~09/06/23~~	~~09/20/23~~	~~elizabeth.schmitt@s~~	~~St Gobain Personnel~~
Permitting	81d	08/24/23	12/20/23		Awarded
~~Overall Site (result of site package) c~~	~~1d~~	~~11/01/23~~	~~11/01/23~~	~~tdowdy@bscgroup.~~	~~Awarded~~
~~Civil~~	~~41d~~	~~08/24/23~~	~~10/23/23~~		~~Awarded~~
Office Trailer Complex	16d	11/26/23	12/15/23	joseph.skowronski@	Pricing in Hand
Pre Eng'd/Fab 'd Warehouse	1d	09/29/23	09/29/23	Brendan Carey	Pricing in Hand
Existing Lab Renovation	15d	11/30/23	12/20/23		Request fo Pricing
Parking Lot Considerations (StG has				elizabeth.schmitt@s	St Gobain Personnel
Pre-Construction	169d	08/06/23	04/03/24		
Civil	101d	08/06/23	12/29/23		
Trailers	105d	08/06/23	01/04/24		
Pre Fab Warehouse	125d	08/06/23	02/01/24		
Existing Lab	147d	09/06/23	04/03/24		
Site Work Facilities	61d	09/03/23	11/30/23		
Construction	122d	11/15/23	05/07/24		

Single System Overlay

- Provide a single solution to monitor and control all systems within a facility ex. Software and hardware upgrade paths and planning.
- Dealing with multiple vendors systems in one building.
- Dealing with only one vendor, single point of failure.

OT Security Planning

IT = Information Technology

- SQL
- Cloud
- Marketing data (CRM)
- Business data (ERP)
- HTTP Internet

OT = Operation Technology

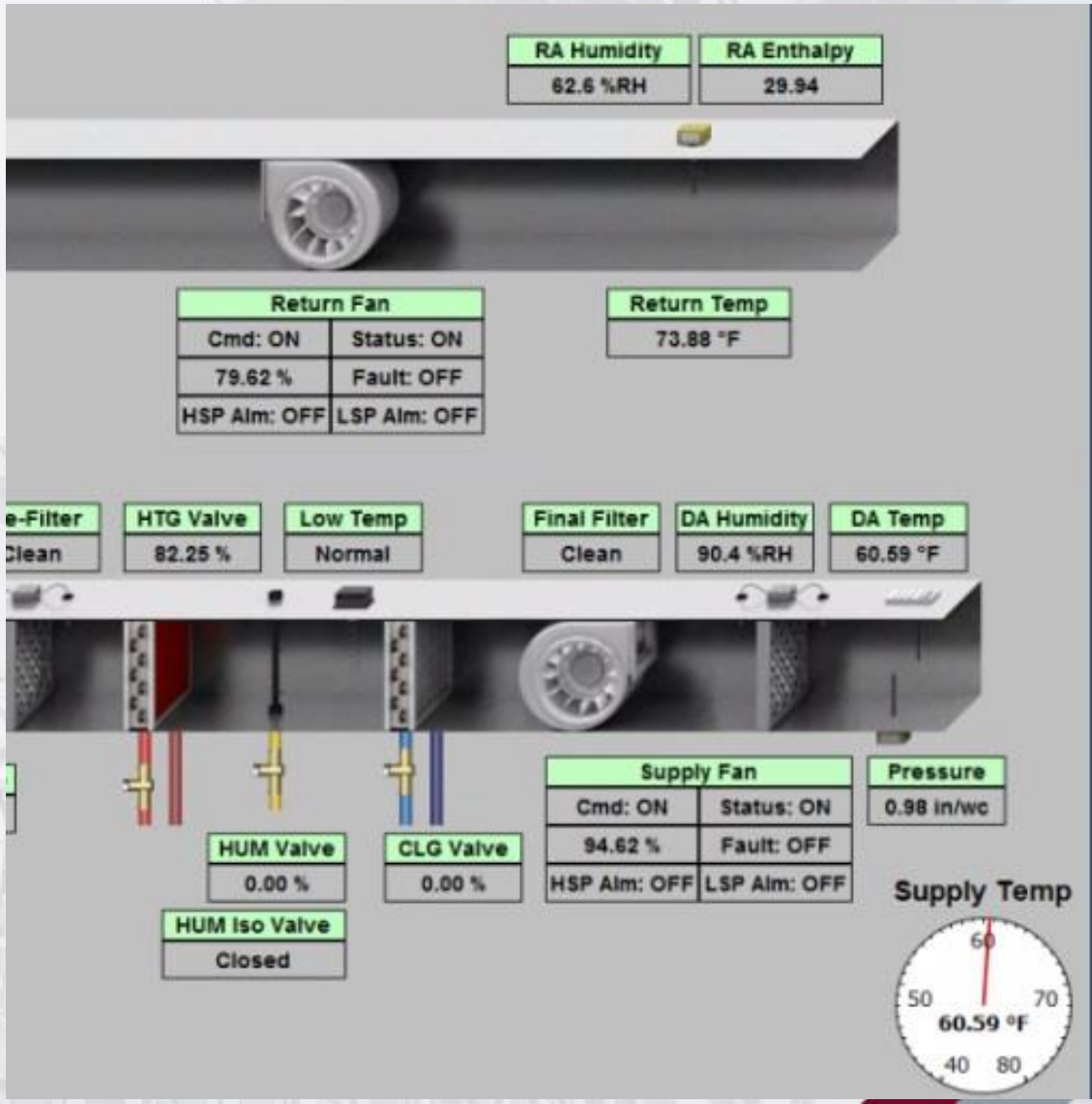
- Internet of Things (IoT)
- Boilers/ Chillers/ AHU's
- SCADA
- BACnet/ Modbus/ Lon
- Electrical & Gas Meters

OT Risk Management

- Network Switches
- Outdated devices
- Open Ports
- File back ups
- Unlocked panels
- Wireless data

Healthcare HVAC Control

- Positive and negative room pressure control sequences ways to increase reliability.
- Healthcare minimum ventilation rates ASHRAE Standard 170
  - Post Pandemic ASHRAE Standard 241
    - IRMM- Infection Risk Management Mode
    - Requirements for equivalent clean airflow rate- CFM and fresh air intake changes
    - Requirements for use of filtration and air cleaning technology
    - Planning and Commissioning- Building Readiness Plan

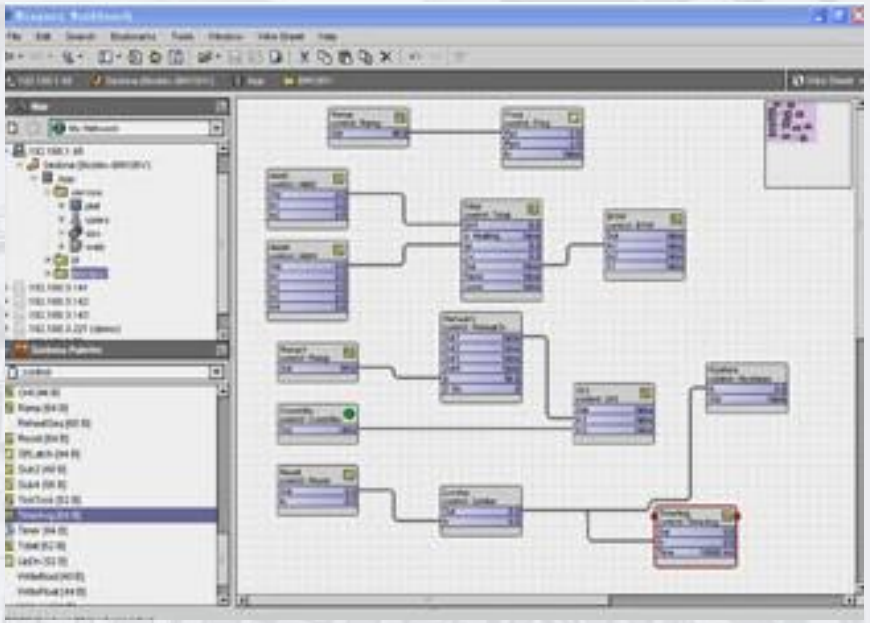


Why are we different?

Former system integrators, programmers and technicians.

- We are not interested in selling products.
- We are not a design engineering house.
- True neutral 3rd party

One stop shop for BMS, Architecture, Engineering and Construction assessment needs.



SUMMARY

- Product agnostic
- Digital commissioning
- Single system overlay
- Project management
- Energy auditing

Any building system, anywhere, anytime!

(Some of the products we serve)

Honeywell SIEMENS TRANE

Johnson Controls Schneider Electric Delta Controls

TRIDIUM ABB MITSUBISHI ELECTRIC

Question?

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www.ccaco.com

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