



KUEGLER ASSOCIATES

consulting engineers

DESIGNED RIGHT = BUILT RIGHT

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KUEGLER ASSOCIATES, LLC

Kuegler Associates, LLC is a diversely experienced company with offices in Connecticut and Massachusetts, offering professional engineering services to clients throughout the Northeast for the past 16 years. At Kuegler Associates we are committed to providing the personal attention and responsiveness required to make your project a success. We have the expertise, experience and facilities to take on projects of any scope or magnitude, and a professional commitment to completing them in a thorough yet timely manner.

Diversity of Experience

Kuegler Associates takes great pride in the diversity of experience we offer our clients. We have provided engineering services for projects ranging in scope from the construction of private residences to 140,000 square foot multi-phase government projects. We have a wide range of expertise, including fire protection, medical gas, plumbing, HVAC, electrical, and other disciplines. We have served a diverse client base including: private individuals, corporations non-profit organizations, local municipalities, federal agencies, school districts, housing authorities and health care providers. Every client and every project receives responsive, professional service regardless of size.

A Personal Commitment to Excellence

At Kuegler Associates, every member of our staff knows that they play an important role in our success and in the success each project. Everyone, from engineers to CAD designers to office staff, has a personal investment in his or her work. The end result of this philosophy is work of consistently high quality delivered in an efficient manner. The principals of our firm are directly involved with most phases of every project and maintain close contact with each client from inception to completion.

In the following pages, you will find resumes of our principals, listings of services and facilities offered, and descriptions of our past projects and clients. If you require further information, please feel free to contact us at (860) 945-6955.

We look forward to contributing to the success of your upcoming project.

Regards,

Kurt W. Kuegler, P.E.

Eric R. Kuegler, P.E.



KURT W. KUEGLER, P.E.

Professional Engineering Registrations

- Connecticut
- Rhode Island
- New Hampshire
- New York
- Florida
- National Council of Examiners for Engineers and Surveying (NCEES)

Education

- Rochester Institute of Technology, MSME 1990
- Rochester Institute of Technology, BSME 1989

Continuing Education

- Automatic Sprinkler Seminar (3 days) - NFPA
- National Electrical Code Seminar (4 days) - NFPA
- Forty Hour Value Engineering Work Shop (5 days)
- Building Controls and Energy Management System Seminar (3 days) - AEE

Professional Memberships

- Connecticut Society of Professional Engineers
- National Society of Professional Engineers (NSPE)
- Connecticut Engineers in Private Practice (CEPP)
- American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)
- National Fire Protection Association (NFPA)

Summary of Experience

15 years of experience of project design and engineering management for:

- HVAC
- Plumbing
- Fire Protection
- Industrial Ventilation
- Energy Management Systems
- Cost Estimating
- Involved in both new construction and renovation projects.
- Prepared reports for building evaluations and energy audits.

Other Activities

- Snow boarding and skiing.



ERIC R. KUEGLER, P.E.

Professional Engineering Registrations

- Connecticut
- Massachusetts
- New Hampshire
- Rhode Island
- Florida
- National Council of Examiners
for Engineers and Surveying (NCEES)

Other Certifications

- Class 4 Massachusetts Industrial Waste Water Operator

Education

- Northeastern University, BSEE 1986

Continuing Education

- Magnetix Design course, University of Wisconsin, Madison
(3days)
- Novell admin. and advance admin. course (7days)

Summary of Experience

Fourteen years experience in the design and development of power systems, control systems and communication systems for Military, Government and Commercial customers. Eric has a firm understanding of the requirements of these complex systems and can provide the required expertise for the design development of these systems.

Eric's primary responsibilities include

- Project management
- Electrical systems engineering including power, lighting, fire alarm, security, telecommunications, process control and clean agent fire suppression systems
- System conceptual design and specifications
- Hardware design, development and documentation
- Cost estimates and planning

Other Activities

- Project Engineer, Northeastern University Engineering Alumni Society
- Aircraft pilot (SEL), sailing and skiing
- Active Adult Committee Member for a Local Scout Troop



DIVERSITY OF CLIENTS

Kuegler Associates provides engineering reports, evaluations, design services, contract drawings and specifications, engineering construction cost estimates and construction period services for various clients.

Diversity of Clients

The principals have been involved in providing engineering services for the following clients:

- New London Submarine Base
- Newport Naval Station
- US Coast Guard Academy
- US Coast Guard Locations in CT, RI and MA
- General Service Administration, New York
- General Service Administration, Boston
- V.A. Medical Centers
- US Postal Service
- Connecticut Department of Public Works
- Municipalities
- Public Utility Companies
- Wireless Cell Phone Companies
- Housing Authorities
- Library Associations
- Universities
- Boards of Education
- Private Schools
- Hospitals
- Convalescent and Nursing Homes
- Assisted Living Facilities
- Architects
- Banks
- Commercial, Office and Retail
- Industrial
- Residential
- Developers
- Contractors
- Owners



PROJECT EXPERIENCE - LAST 5 YEARS

The principals have participated in a large number of projects.

A majority of these projects involve renovation, upgrading, or replacement of various building systems. Planning construction work and maintaining client building occupancy during construction is an important element in our design.

The following lists the number of projects we have worked on by client sectors over the **last 5 years**:

- 96 Commercial** (offices and warehouses)
- 28 Educational** (schools, colleges and libraries)
- 64 Governmental** (local, state and federal)
- 42 Health Care** (hospitals, convalescent homes and medical centers)
- 9 Lodging** (hotels and motels)
- 33 Industrial** (industrial, laboratories, computer facilities)
- 9 Recreational** (sports facilities and playing fields)
- 17 Religious** (Churches)
- 53 Residential** (apartments, condominiums and housing authorities)
- 24 Retail** (stores and restaurants)
- 10 Studies** (building evaluations and energy studies)
- 35 Utilities** (cellular phone companies and water utility companies)
- 34 Telecommunications** (cellular phone companies)



ENGINEERING SERVICES PROVIDED

Mechanical

- Heating, Ventilation and Air Conditioning Systems
- HVAC Control Systems (Energy Management Systems)
- Industrial and Laboratory Ventilation and Makeup Air Systems
- Boiler Upgrades or Replacements
- Chiller Upgrades or Replacements
- Steam and Chilled Water Distribution Systems
- Industrial Compressed Air Systems
- Industrial and Medical Gas Systems
- Dust Collector Systems
- Paint Spray Booths
- Rifle and Pistol Ranges
- Kitchen Hood Exhaust Systems
- Fuel Oil Systems and Tank Replacements
- Natural Gas and Propane Systems

Plumbing

- Potable Water Systems including Hot Water Generators
- Sanitary Waste and Vent Systems
- Storm Water Drainage Systems
- Irrigation Systems

Fire Protection

- Fire Protection Systems:
 - Sprinkler Systems, Wet pipe/ dry pipe
 - Pre-action
 - Fire Pumps (Electric, Diesel)
 - FM 200 Clean Agent
 - Flow testing
- Fire Detection Systems:
 - Addressable and Non Addressable Fire Alarms
 - Pre-Action, Agent Release
 - Notification (ADA and Other Codes)

Electrical

- Building Electric Service Upgrades and Replacements
- Building Power Distribution Systems
- Primary and Secondary Sub Stations
- High Voltage Distribution Systems
- Electric Load, Fault Current and Coordination Studies
- Interior Lighting and General Power Systems
- Lighting Upgrade or Replacement including Lighting Control Systems
- Site Lighting including Photometric Analysis



Electrical Continued

- Fire Alarm, Call For Aid and Nurse Call Systems
- Emergency and Standby Generators
- Uninterruptible Power Supply (UPS) Systems
- Telephone and Data Communication Systems
- Phone and Network, Horizontal Cabling and Backbones
- Battery / Rectifier rooms and DC loading analysis
- Specialty grounding and bonding Systems
- Security, Video Surveillance and Access Control Systems

Telecommunications

- Wireless Switch Migration Engineering Support
- Onsite Project Management
- Digital Area Cross Connect Transport Planning
- Digital Area Cross Connect Provisioning
- Live Traffic Facility Migrations
- Xpercom Circuit Layout Reconciliation to As Built Configuration
- Xpercom Path Revisions Creation and Port Equipment Build and Mapping

Miscellaneous

- Energy Conservation and Management Reports
- Elevator Upgrade or Replacements
- Building Surveys
- Building Additions and Renovations
- Lighting protection systems.



COMPUTER DESIGN SOFTWARE

Kuegler Associates uses advanced computer based software and personal computer technology. Software includes:

Computer Aided Drafting

- AutoCAD MEP 2009
- Revit MEP 2009

Engineering Design Programs

- Heating and Cooling Load Analysis – Elite CHVAC and Carrier HAP
- Ductwork Design – Elite DUCTSIZE
- Hot and Chilled Water Piping Design –HVAC Solutions
- Hydraulic Sprinkler Piping Design – Elite FIREW
- Photometric Analysis
- Electrical Fault Current Analysis
- Electrical Generator System Design
- Various Vendors' Equipment Selection Software

Word Processors and Specifications

- Microsoft Word
- SpecsIntact – Federal Government Consolidated Specifications
- Kuegler Associate's Guide Specifications

Cost Estimating and Mathematical Analysis Programs

- Microsoft Excel
- Microsoft Access
- MathCAD - Advance Mathematical Program
- Means CostWorks

These capabilities allow for faster and more accurate design and production of reports, contract documents, and cost estimates, providing our clients with a cost effective design at a reasonable engineering fee.



RENOVATION TO THE SURGICAL INTENSIVE CARE UNIT

Hospital of Saint Raphael
New Haven, CT

KA Construction Value*: \$550,000

*Construction values are based on Kuegler Associates portion of the work.

Area: 10,000 SF

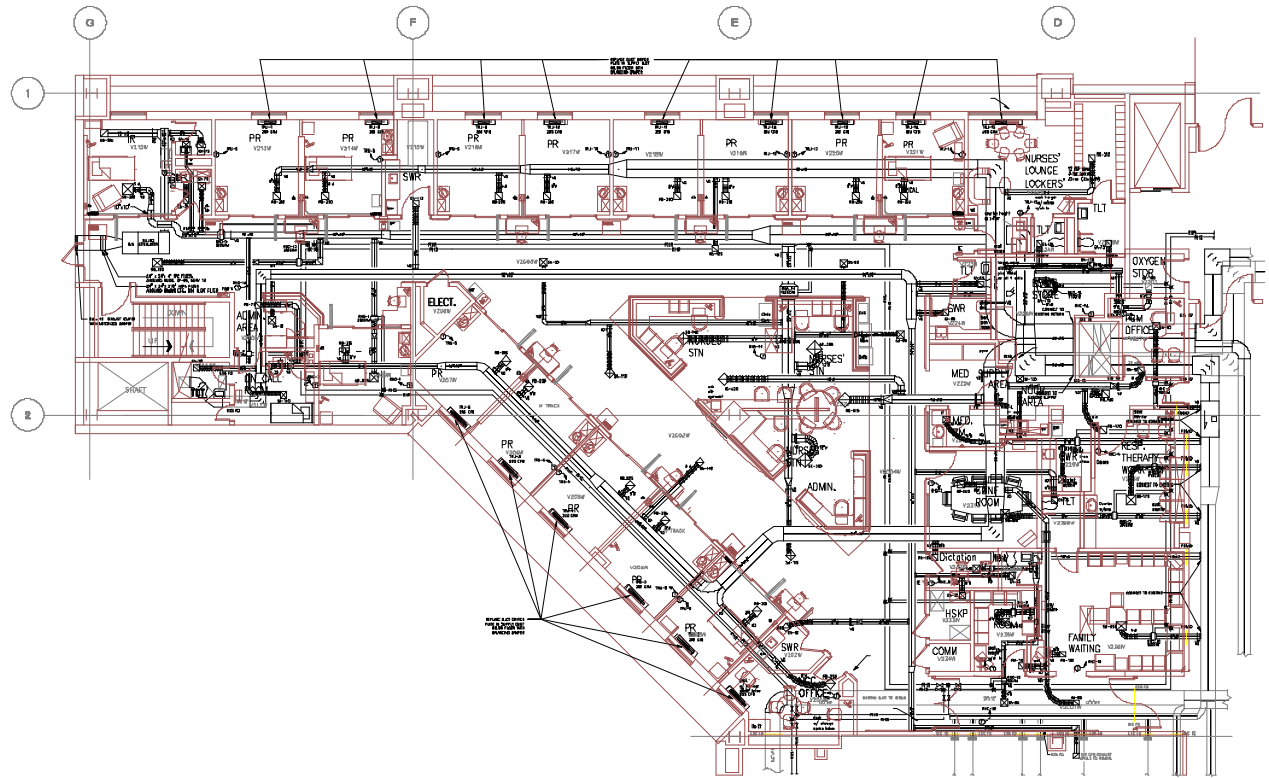
General: Complete renovation of the existing surgical intensive care unit (SICU). Work included reconfiguring common spaces, replacing patient room head walls, installing new nurses station, and providing isolation room.

Fire Protection: Complete replacement of sprinkler heads and branch piping.

Plumbing: Replacement of branch medical gas piping including oxygen, medical air and vacuum. Replacement of branch cold water, hot water and tempered water piping. Sanitary and vent piping replacements. Replacement of plumbing fixtures.

Mechanical: Complete replacement and reconfiguration of all ductwork, diffusers and grilles. Reconfiguration of hot water piping and reheat coils. Replacement of controls. Installation of exhaust fan and HEPA filters for isolation room.

Electrical: Replacement of all branch wiring and extension of existing hospital distribution systems. Extensive coordination with architectural for interior lighting. Modifications to the following hospital systems: fire alarm, call for aid, medical gas monitoring, nurse call, paging (hospital wide and local), TV, data and patient monitoring.



RENOVATION TO BUILDING 83

New London Sub Base, US Navy
Groton, CT

KA Construction Value*: \$4,800,000

*Construction values are based on Kuegler Associates portion of the work.

Area: 105,000 SF

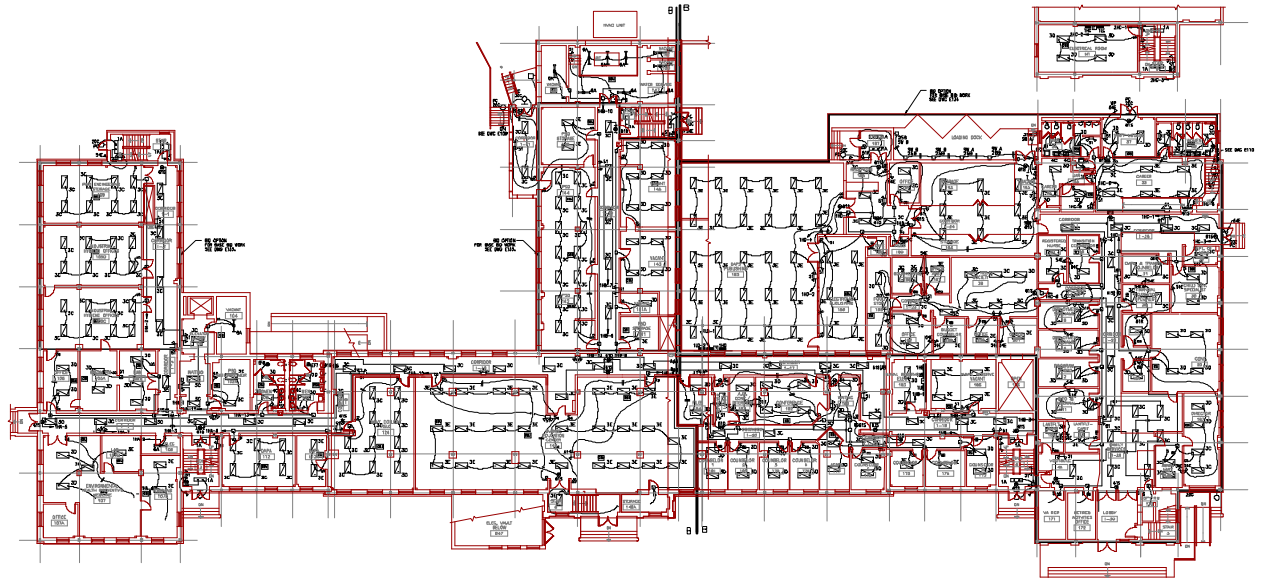
General: Complete fire protection, plumbing, mechanical and electrical renovation of a 4 story office building with attached gymnasium. The navy requires design analysis with detailed construction cost estimates.

Fire Protection: Complete replacement of sprinkler heads mains and branch piping. Installation of an electric driven fire pump.

Plumbing: Replacement of all plumbing fixtures, equipment and piping.

Mechanical: Complete replacement of the HVAC system. Replacement system was based on VAV system with roof top units, series VAV boxes and perimeter baseboard heat. The building was provided with a complete DDC control system.

Electrical: Complete replacement of the building electrical system from the base high voltage network, including specification of transformers, interior power and lighting. A 480 volt distribution system was utilized for all mechanical equipment and lighting loads reducing the electrical system cost. Step down transformers were provided in each electric room for the receptacle loads. An addressable fire alarm system with a radio link was provided to the base central station. Telephone and data back boards were provided throughout the building with power and grounding means.



Westbrook Honda Car Dealership

Westbrook, CT

KA Construction Value*: \$1,400,000 est.

*Construction values are based on Kuegler Associates portion of the work.

Area: 40,000 SF

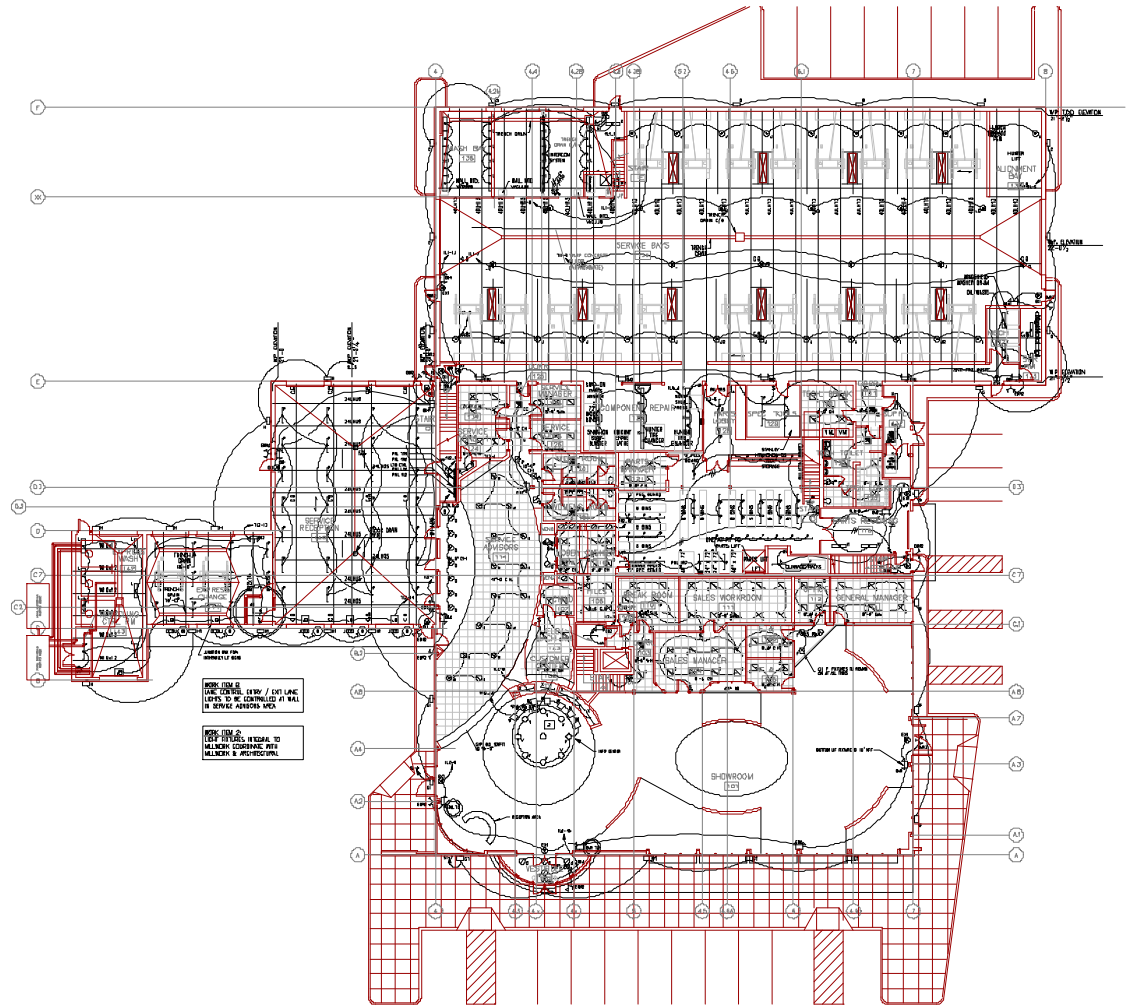
General: New 2 story Honda car dealership with showroom, service garage, drop-off area, carwash, quick lube and 2nd floor corporate offices.

Fire Protection: Design of both a wet pipe and dry pipe systems.

Plumbing: Design of plumbing systems including fixtures, equipment, domestic, sanitary, vent, oil lubrication, waste oil and compressed air piping.

Mechanical: Design of HVAC systems including constant volume, overhead radiant heating, and general and underground vehicle exhaust systems.

Electrical: Design of the complete interior electrical systems including power, light, fire alarm, data and telephone. Extensive site lighting design was required for planning and zoning approval.



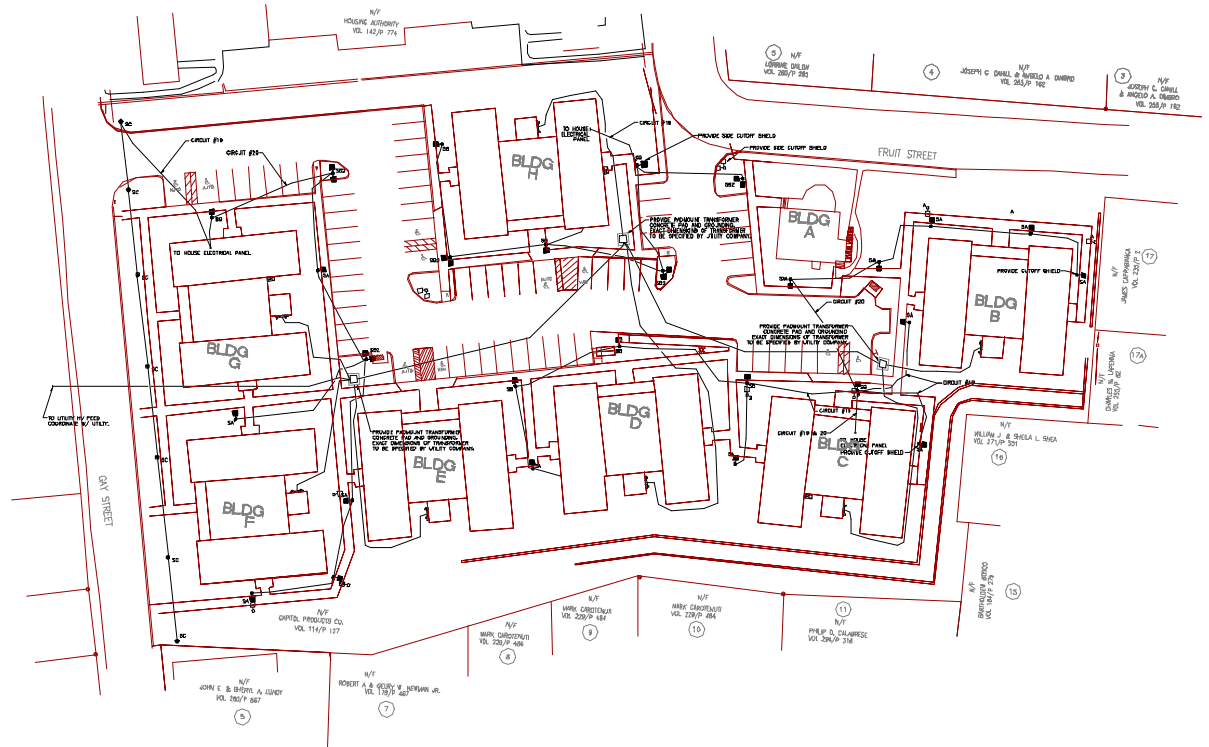
Winchester Housing Authority
Winsted, CT

*Construction values are based on Kuegler Associates portion of the work.

General: New elderly housing complex consisting of 7 new one story building with each building housing 6 apartments. Renovation of an existing duplex apartment house.

Mechanical: Design of a hot water baseboard heating system and through-the-wall air-conditioning units. Design included two central boilers for each building.

Electrical: Design of the complete electrical system including power and light. Each building has a single modular metering center with separate meters feeding each dwelling unit and house panel. A central addressable fire alarm system was designed and covered the complete complex providing interior fire/smoke detection, notification and call for aid functions meeting ADA and handicap accessibility requirements. Telephone and cable TV distribution systems was also provided throughout the complex. Site lighting design was also performed which included photometric analysis for town planning and zoning approval.



Waterbury City Hall
Waterbury, CT

*Construction values are based on Kuegler Associates portion of the work.

Design of the replacement of one existing cast iron steam boiler with 3 flexible tube steam boilers for an 86,000 SF 3 story city hall building. Each boiler was rated for 2,500 MBH input. Boilers were designed to be converted to hot water in the future.

A temporary boiler was specified to serve the building while the work was being performed.

