

A quarterly publication of the Boston Chapter of the National Electrical Contractors Association



The electrical and telecommunications industry news in Eastern MA, ME, and NH

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**POWERPOINTS**

*A Message from the Executive Manager*

**Are Your Building's Electrical and Tel/Data Systems Up-To-Date?**

**The Importance of Keeping Electrical Systems Current in the Present Economy**

Given budget cuts that have resulted from the economic downturn, and the subsequent postponement of major new electrical projects, it is more important than ever to make sure existing electrical systems are running properly and efficiently in 2009. NECA contractors are well prepared to assist building owners and managers in this most important aspect of their building systems. From power systems to life safety systems and from security systems to telecommunications, many members of the Boston Chapter offer cost-effective service contracts to ensure the proper operation of their clients' building electrical systems.

Annual preventive maintenance programs should be implemented by building owners or managers. It is generally recommended that electrical diagnostic tests be conducted once a year. Critical equipment may require semi-annual or quarterly visits. The bottom line is that regular electrical diagnostic testing minimizes the possibility of unexpected power outages and potential life safety hazards.

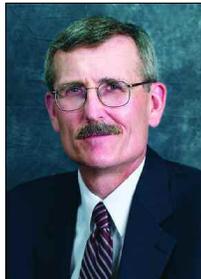
To ensure electrical equipment and systems are both safe and operating appropriately, both de-energized and energized tests can be performed. The two technologies commonly utilized in preventive maintenance testing, both of which are non-intrusive tests, are infrared thermography and ultrasonic testing. Electrical testing can identify hot spots, loose connections, and overloaded or unbalanced circuits that can cause an unplanned shutdown of equipment or a fire.

For tel/data systems, power quality tests should be performed to assure that clean, dependable power serves the tel/data equipment and harmonics are within IEEE guidelines. Proper phase balancing and loading are also very important.

NECA contractors and our experienced teams of union electricians and technicians stay current with all aspects of building electrical systems and systems' testing procedures. Now is the time to ensure your systems are up-to-date. If required, upgrades and renovations are ongoing areas of service that NECA contractors specialize in. Service contracts are cost-efficient and very important in keeping your buildings and employees safe.

For further information, call the Boston Chapter NECA at 617-969-2521, and we'll be pleased to provide a referral list of contractors and their areas of service. Or, visit us online at [www.bostonneca.org/directory.html](http://www.bostonneca.org/directory.html)

Preventive maintenance is the key to reducing accidents, saving lives, and avoiding costly breakdowns and work stoppages. Updated to reflect the latest industry developments and safety strategies, NFPA 70B is the best guide to create an effective Electrical Preventive Maintenance program (EPM).



Glenn Kingsbury

**ELECTRICAL INDUSTRY NEWS**

**NECA Boston Chapter 2009 Board of Directors**

West Newton, MA – At the January Annual Meeting, the NECA Boston Chapter confirmed its 2009 Officers and Directors. President Hugh McLaughlin of Sullivan and McLaughlin Companies is serving the second year of his two-year term.



Front Row (l to r):

- Gregory Sapochetti, Director  
J. F. White Electrical
- Joseph McCluskey, Jr., Director  
E.G. Sawyer Co. Inc.
- Joseph Bodio, Secretary  
Lan-Tel Communications
- Hugh McLaughlin, President  
Sullivan & McLaughlin Cos.
- Lawrence Hurwitz, Vice Pres.  
Broadway Electrical Co., Inc.
- Thomas Driscoll, Governor  
E.S. Boulos, Inc.
- David W. Noon, Treasurer  
J. & M. Brown Company, Inc.
- Not pictured:  
Ronald Koning, Jr., Director  
State Electric Corp.

Back Row (l to r):

- Chad Jones, Assistant Manager  
NECA Boston Chapter
- William Weber, Jr., Director  
Gaston Electrical Co., Inc.
- Michael McDonald, Director  
McDonald Electrical Corp.
- John Corliss, Director  
J. Corliss Electric, Inc.
- John Penney, Director  
John A. Penney Co., Inc.
- Stephen Scarponi, Director  
Scarponi Electric
- Paul Guarracino, Director  
J.M. Electrical Company
- Glenn Kingsbury, Exec. Mgr.  
NECA Boston Chapter

**Sue Mailman, Coghlin Electric, Receives "Volpe-Eagan Safety Award" from The Construction Institute**

Boston, MA – On December 17, Sue Mailman, President of Coghlin Electric, Worcester, MA was presented the Volpe-Eagan Safety Award by The Construction Institute. Coghlin's commitment to sound safety processes for all personnel has resulted in the company's strong safety record. Coghlin Electric is a fourth generation NECA contractor with a long history of safety excellence. Sue's father, Edward "Ted" Coghlin, won the Volpe Safety Award in 1998. ■

**CONNECTIONS**



CONNECTIONS is a quarterly publication of the Boston Chapter of the National Electrical Contractors Association / Electrical Contractors Association of Greater Boston, Inc., 106 River Street, West Newton, MA 02465. Phone 617-969-2521.

Mission: CONNECTIONS is designed to provide information relating to current happenings in the electrical construction industry in Eastern Massachusetts, Maine, and New Hampshire and to report activities of the Boston Chapter of NECA and its members. Your comments are welcome. We can be reached via e-mail at: [info@bostonneca.org](mailto:info@bostonneca.org)



## INSTALLATIONS

An inside look at a recent project completed by a NECA Greater Boston Chapter member

### State Electric Corp. Completes \$1.05M Electrical Construction of American Cancer Society Astra Zeneca Hope Lodge

**NECA Contractor Teams with Architect: CBT/Childs Bertman Tseckares, Boston; GC: Bond Brothers, Everett, MA; EE: Cosentini, Cambridge, MA**

Boston, MA – State Electric Corp. the Woburn, MA based NECA contractor, has recently completed electrical construction of the 56,000 square-foot American Cancer Society Astra Zeneca Hope Lodge on South Huntington Avenue in Boston. The lodging facility for cancer patients is comprised of a fully renovated 100 year-old, 13,200 sf 4-story building, and an adjoining new 42,800 sf building.

State Electric's multi-dimensional project scope entailed providing comprehensive electrical installations for both facilities, including primary and emergency power, lighting systems, fire alarm, security systems, and tel/data systems. The existing 100-year old building required complete gutting and renovation. Unforeseen structural issues in the 1907 building had to be addressed prior to the installation of mechanical systems.

The facility is LEED Certified. Among the various energy saving systems is the lighting package with occupancy sensors controlling 98% of the fixtures.

Advanced security system installations include intrusion detection, card access, video phone, and surveillance cameras throughout the facility.

State Electric's Project Manager Kevin Gaulin and



PHOTOGRAPH: SEYMOUR LEVY

*American Cancer Society Astra Zeneca Hope Lodge*

foreman Kevin DeMarco supervised a crew of six journeymen, two apprentice electricians, and two telecom specialists from IBEW Local 103 during the 13-month project which was completed in September 2008.

Astra Zeneca Hope Lodge Center in Boston, a program of the American Cancer Society, provides free, temporary lodging and other vital services for cancer patients who must travel far from home for outpatient treatment at one of Boston's medical centers. The new Hope Lodge is comprised of 40 private patient suites, a library, courtyards, common areas for meal preparation and dining, as well as the American Cancer

Society Quality of Life Center. Patients are provided transportation to treatment. The new facility will increase lodging capacity in Boston by nearly 70 percent, serving 1,500 guests each year with around-the-clock assistance in navigating their cancer journeys.

*State Electric Corporation, a second generation, multifaceted company, provides electrical construction and telecommunications services to diverse projects throughout Eastern New England. Founded by recently retired Ronald Koning, Sr., the Company is now headed by his sons Ronald Koning, Jr., President and Jon Koning, Vice President. Ronald Koning, Jr. serves as a Director on the NECA Boston Chapter Board of Directors. Prominent projects recently completed include the Heller Building and Schneider Building projects at Brandeis University and the Salem Harbor Control and Integration project in Salem, MA. The Company is underway with the Paramount Center Complex at Emerson College, Vernon Hydro Power Plant in Vernon, VT and nearing completion of Brayton Point Power Plant in Somerset, MA and Logan Airport's Facilities 2 Expansion Phase 1 project. ■*

### Lighthouse Electrical Completes Design/Build Solar System Project at Camp Harbor View, Long Island, Boston Harbor

Boston, MA – Lighthouse Electrical Contracting, Inc. of Rockland, MA has completed the extremely fast track design and installation of a 16.72 kW photovoltaic system at Camp Harbor View in Boston Harbor.

The solar project commenced November 22, 2008 and was completed by December 17, as the NECA contractor met an aggressive project timeline so that the system was fully installed prior to the onset of harsh winter weather.

Lighthouse supervised the three-person installation team from IBEW Local 103, which consisted of one foreman, one journeyman, and one apprentice electrician, headed by company principal and project manager Herbert Aikens and Lighthouse Renewable Energy Division Manager, Newell Thomas. Lighthouse provided its services meeting the budgetary needs of the camp's non-profit owner, Camp Harbor View Foundation, which operates the camp in partnership with the City of Boston and the Boys & Girls Clubs of Boston.

The 12,120 sf camp building, which houses administrative offices, classrooms, an activity room, and kitchen, has a south-facing roof, ideal for the installed solar system. The photovoltaic system comprises eighty-eight (88) 190 Watt Evergreen Solar panels, manufactured by Evergreen Solar of Marlboro,



Massachusetts. Integral to the system are three (3) 5000 Watt Solectria inverters, required to convert the DC power (generated by the solar modules) to AC power for use in the building. The inverters were also provided by a Massachusetts-based manufacturer, Solectria Renewables, located in Lawrence, MA.

The annual electrical output of the photovoltaic system is estimated to be 21,000 kWh. The PV system is interconnected to the camp's main panel and, in essence, is a parallel generator, supplying power directly to all loads at the camp in the same manner as grid power. According to Thomas, "Since the photovoltaic system is on the customer side of the electric meter, every kWh of electricity that the system produces first is used to displace electricity that would normally be purchased from the utility. In the event the PV system produces more electricity than the camp uses, the power is fed back to the utility making the camp's meter spin backwards."

Aikens commented on Lighthouse's effort and expertise in bringing renewable energy to Camp Harbor View. "Lighthouse is proud to be associated with such a great project that benefits kids who don't always have the same opportunities as others. This system can be used to help educate children on the benefits of solar and other clean, renewable energy."

Camp Harbor View, opened in the summer of 2007 and offers "a true summer camp experience for 600 children ages 11 to 14 who live in Boston's at-risk neighborhoods," according to the organization's web site.

*Lighthouse Electrical Contracting, Inc. is a full service electrical construction company based in Rockland, MA. The company is a leader in renewable energy systems, both wind and solar, in New England, having installed more than 150 renewable energy systems in the past six years. Lighthouse recently completed a photovoltaic system for the Massachusetts Nursing Association in Canton and is on schedule to complete the installation of the first medium-scale wind turbine on Nantucket Island at Bartlett's Ocean View Farm this winter. The contractor has recently completed electrical projects for Dana Farber Cancer Institute at the Life Sciences Center of Boston and Millennium Pharmaceuticals in Cambridge. ■*

## INSTALLATIONS

An inside look at a recent project completed by a NECA Greater Boston Chapter member

### Fischbach & Moore Electric Group, LLC. Completes \$4M CA/T Cellular Wireless Installation Project

**Enables Cellular Service in Boston's Central Artery Tunnel System;**  
**Carriers: Verizon Wireless, Sprint/Nextel, T-Mobile, AT&T;**  
**GC: Timberline Construction, Canton, MA; EE: Dewbury-Goodkind, Inc., Boston**

**B**oston, MA – Fischbach & Moore Electric Group, LLC of Boston, MA, has completed the \$4,000,000 wireless project enabling cellular phone service in Boston's Central Artery tunnel system. The cellular carriers involved include Verizon Wireless, Sprint/Nextel, T-Mobile, and AT&T.

The NECA contractor's project scope included the installation of more than 13 miles (70,000 feet) of 4 runs of 72 strand fiber optic cabling with associated supports every 5 feet, and 12,000 feet of coaxial cabling with associated supports every 4 feet. The project also included Fischbach and Moore's installation of cellular carrier equipment within Vent Building 6 and in 43 utility rooms located in the Central Artery tunnels. The Fischbach and Moore team installed all required fiber optic cable and coax cable support systems. The contractor also installed 121 antenna mounts and 160 antennas integral to the project.

The extensive fiber optic cable for the project originates in the CA/T communications room, within Vent Building 6 in South Boston, and runs through a section of the Ted Williams Tunnel. Cabling then extends through to the I-90 East and Westbound tunnel system and the I-93 North and Southbound tunnel system. Cable installations also include all associated on- and off-ramp areas within the tunnel system.

Installations of the fiber optic cable and coax cable required core drilling – through concrete walls – through multiple roadways and into utility rooms. Fiber optic cable transitions to coaxial cable within the carrier-supplied equipment in the utility rooms, and coaxial cable is installed from the utility room carrier-supplied equipment to antennas mounted throughout the Central Artery tunnel roadways.

This challenging 9-month project commenced in February, 2008 and was completed on schedule by the end of October. Wireless cellular service in the Central Artery tunnels is now operational.

Fischbach & Moore managed a field crew comprised of 20 journeymen and apprentice electricians and 8 telecom technicians from IBEW Local 103. The



*The NECA contractors' project scope included the installation of more than 13 miles (70,000 feet) of 4 runs of 72 strand fiber optic cabling and 12,000 feet of coaxial cabling*

Fischbach project management team included: Project Manager Jim O'Keefe; Assistant Project Manager Bill Madden; General Foreman Gerry Sullivan; Foreman Paul Rheault; and Project Controls Manager Chris Seavey. The telecom crew was headed by Tom Hazley, Supervisor and Paul O'Neil, Project Foreman.

To meet project requirements, for safety considerations, and to have minimal impact on traffic flow, the Fischbach team performed all work overnight, Sundays through Thursdays, between the hours of 9PM and 5AM. Extensive lane closures were necessary to allow for worker access, equipment deliveries, and installation of cabling and supports across the roadway systems. Work that necessitated lane closures was permitted only during the hours of 12:30AM to 4AM and Fischbach worked closely with the Massachusetts Turnpike Authority (MTA) in the coordination of all lane closures.

Fischbach's Project Manager Jim O'Keefe discussed the demanding logistical issues. He said, "Project scheduling, coordination, and access issues were critically important. With multiple contractors working on the project, gaining access to areas where work was to be done required close coordination with

the Mass. Turnpike Authority and the project team. Logistically, it was demanding to get cable across all roadway and tunnel systems in limited overnight schedules. The Turnpike Authority and Timberline Construction deserve a great deal of credit for their management and assistance in the implementation of this project. Our Project Controls Manager Chris Seavey closely coordinated all scheduling, access, and lane closures with the MTA, the general contractor, and the electrical engineer."

Fischbach and Moore provided services with a project team that included general contractor Timberline Construction of Canton, MA and electrical engineer Dewberry-Goodkind, Inc. of Boston. Andrew Corporation of Texas was the equipment supplier for the cellular carriers. In the final phase, Fischbach provided fiber testing and troubleshooting services to make the system operational, while Andrew Corporation provided testing for the carriers.

Concurrent to the CA/T Wireless project and under separate contract, Fischbach and Moore completed the cell phone service installation upgrades for the Ted Williams Tunnel.

*Fischbach and Moore Electric Group, LLC is an electrical industry leader specializing in mass transit projects, intelligent highway systems, electrical distribution and substation projects, waste water treatment projects, fire alarm system installation, testing and maintenance, and high voltage cable installation. Company President, Hugh McLaughlin, also serves as the current President of the NECA Boston Chapter and as a Trustee for IBEW Local 103. Prominent recently completed projects include the MTA Ventilation Installation project; the MBTA Fields Corner and Shawmut Station project; NSTAR Natick Labs project; and the Amylin Pharmaceuticals project in Hamilton, Ohio. Among key projects underway are the MWRA North Dorchester Bay CSO project, the MWRA Blue Hills Covered Storage project, and the US Airways Fire Alarm Upgrade project. ■*

### NECA Boston Chapter Welcomes Five New Member Electrical Contractors

**W**est Newton, MA – The NECA Boston Chapter is pleased to welcome five electrical contracting companies as new members of our chapter. In October and November of 2008, the following companies joined the NECA membership roster:

**Alfonso Electrical Services**, Middleboro, MA, founded by its principal Ada Alfonso, is a woman, minority-owned electrical contractor. The company provides electrical construction services for commer-

cial projects and renewable energy solutions for residential projects.

**J. T. Hayman Company, Inc.** of Windham, ME is a member of the Maine Division of the Boston Chapter and provides quality electrical installation services for commercial, institutional, and industrial projects.

**La Lama Electrical Contractors, Inc.**, Braintree, MA, is a family-owned contractor provid-

ing diverse electrical construction services for commercial, institutional, and public facility projects in Greater Boston.

**Riordon Brothers Audio/Video**, Dedham, MA, is a family-owned company focused on providing excellence in audio-visual and security solutions for residential projects.

**Turbo Electric**, based in Woburn, MA, provides a range of HVAC and energy management

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## INSTALLATIONS

An inside look at a recent project completed by a NECA Greater Boston Chapter member

### Broadway Electrical Completes 100,000 sf, Fast-Track Cengage Learning Electrical Build-Out at Channel Center in South Boston

**NECA Contractor on Project Team with Architect: TRO Jung/Brannen, Boston; GC: Gilbane Building Company, Boston; EE: C3, Boston**

Boston, MA – Broadway Electrical, Co., Inc. of Boston has completed the extremely fast-track, 8-week electrical fit-out of Cengage Learning's new offices at 10-20 Channel Center in South Boston's Seaport district. The electrical project included comprehensive electrical installations for 100,000 square feet of high-end office space on the top three floors of the building. The total project value was in excess of \$3,000,000. The project commenced September 4 and was substantially completed as scheduled, on October 25. Cengage Learning took occupancy of its new Boston facility on November 25.

Cengage Learning, based in Connecticut, is a leading provider of instructional and reference materials, both in print and in digital form, to the academic, professional, and library markets.

Broadway Electrical's multi-dimensional project scope in the corporate office project within a converted brick mill building, entailed installation of Cengage Learning's lighting and lighting control systems, fire alarm system, cable tray for tel/data systems, security system, and the UPS power system.

The Broadway project team, managed by VP/Project Manager Glenn Duquette, VP of Labor Operations Dan Griffin, and General Foreman Jay Pagum, met the aggressive 8-week project schedule supervising an electrical crew of 70 electricians from IBEW Local 103 at peak construction.

Given the accelerated schedule, logistical challenges were significant and adeptly handled by Broadway. Chief among those challenges were material scheduling and the transport of manpower and materials to the top of the building's 4th, 5th and 6th floors. Project Manager Duquette commented, "The fast-track schedule required managing a crew of 70 electricians, each of whom worked 52 man-hours in six-day work weeks. Expedited material delivery schedules were required and the success of the project was achieved thanks to cooperation from our ven-



dors and suppliers in meeting the schedule demands. Broadway coordinated schedules with each vendor and in close communication with the general contractor, Gilbane. They deserve a great deal of credit for managing the project efficiently."

Project specifics included the extensive lighting package, consisting of modern architectural lighting fixtures designed to accent and coordinate with the wood floors, ceilings and walls in work areas as well as energy efficient corridor lighting. Yale Electric, Boston Light Source, Axis Lighting, and Spectrum Lighting (corridor lighting) all expedited delivery of the custom lighting package. Lighting control systems, manufactured by Cooper Lighting Controls, feature intelligent relays for open area lighting control. Occupancy sensors control all lighting in individual rooms to enhance the energy efficient lighting package. Yale Electric worked with Cooper Lighting Controls to meet Broadway's project delivery schedules.

Broadway's installation of the office's UPS system, a Liebert 80kVA system, provides 24/7 back-up power for Cengage's main frame as well as for all company data and communications. Square D Power Panels and Transformers were delivered on an expedited schedule through Granite City Electric.

Wiremold Cablofil cable trays for telecom installations were supplied by Standard Electric Supply. Broadway installed cable trays and conduit infrastructure to meet Cengage's requirements.

For life safety systems, Broadway installed the tenant facility's Simplex addressable, high-rise voice fire alarm system. The Boston based contractor also installed a Simplex card access control security system for the tenant space.

Broadway Electrical provided electrical installations with a project team that included architect TRO Jung/Brannen, general contractor Gilbane Building Company, and electrical engineering firm C3, all of Boston. Broadway also worked with lighting consultant Schweppe Lighting Design of Concord, MA.

*Broadway Electrical Co., Inc., founded in 1936, is a third generation full service electrical construction company. One of the Northeast's largest electrical contractors, the NECA member firm provides comprehensive electrical and telecom services to commercial, educational, healthcare, technology, biotechnology, and government facilities. Company CEO Larry Hurwitz presently serves as Vice President of the Boston Chapter of NECA. Prominent projects include One Lincoln Street, the State Center at MIT, Northwest Science Building & Central Energy Plant at Harvard University, Brain and Cognitive Sciences facility at MIT, the Spangler Center at Harvard Business School, and Davios Restaurant and CBS Scene at Patriot Place. Projects underway include W Hotel Boston, Simmons College Data Center, Battery Wharf, and the MIT Media Lab Expansion. ■*



### New NECA Members – A Quality Network Connection *continued from pg. 3*

services to industrial, commercial, and institutional facilities in Greater Boston.

NECA members are professional electrical contractors who:

- develop innovative solutions to meet their customers' needs;
- lead the industry in the practical application of new technologies;
- set industry standards for traditional electrical and integrated building system installations;
- are backed by the resources, research and support of NECA, the industry leader in electrical and telecommunications.

NECA electrical contractors rely on NECA to deliver the resources that help them make better business decisions, provide excellent customer service, and take advantage of innovative technology.

NECA's national office and local chapters advance the electrical construction industry through advocacy, education, research, and standards development.

Electrical contractors interested in joining NECA are invited to contact the Boston Chapter at 617-969-2521 for membership details and an application. Further information may also be found at [www.necanet.org/membership](http://www.necanet.org/membership)

### Accompanying This Issue

The Boston Chapter of NECA is pleased to include a recent issue of *Electrical Design Library* (EDL) with this issue of *CONNECTIONS*.

*LED Lighting: Now In The Present Tense* discusses this new technology in energy-efficient lighting and current applications for its use. ■

