



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

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

POWERPOINTS

A Message from the Executive Manager

A Holiday Season of Great Expectations for Greater Boston

As NECA Boston Chapter extends wishes for a bright holiday season and New Year to our construction industry partners and clients throughout Greater Boston, New Hampshire and Maine, and to each of the communities we serve, it is the perfect time to reflect on 2013 and look forward to the New Year. We cautiously take the optimistic view that the current recovery in Greater Boston's construction industry, and other sectors of our economy, is in its early phase and will become even stronger in 2014 and beyond.



Glenn Kingsbury

New commercial, residential and mixed-use developments, institutional and infrastructure projects, large and small, have enabled Boston's construction industry employment to recover to its healthiest level in more than five years. Currently, there are 1,000 more skilled union electrical and telecommunications workers on Boston area job sites than there were in the first quarter of 2012.

So, as Boston Mayor-elect Marty Walsh prepares to take office in January, there is indeed positive momentum within Greater Boston's construction industry and in the vibrancy of the city. Given that Boston is the economic engine to the New England region, these are important and far-reaching realities. NECA Boston welcomes the opportunity to work with Mayor Walsh in continuing to help build a bright, safe and prosperous future for the Greater Boston community. And, we thank Mayor Menino for his two decades of dedicated service.

As NECA Boston Chapter's electrical construction and telecom contractors are called upon, day in and day out, to efficiently power, light, secure, and connect Greater Boston's and Eastern New England's dynamic new facilities, renovate our historic structures, and rebuild the region's infrastructure, it is critical that well-planned projects vital to the City that have solid funding and proper vetting, gain approval without unnecessary delay. We believe that the Boston Redevelopment Authority, charged with the responsibility to ensure the revitalization of Boston, can continue to build on its track record of allowing for responsible development. It is our hope that Mayor Walsh will also build on the momentum

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INDUSTRY NEWS

Rep. Harold P. Naughton, Jr. featured speaker at NECA Boston Chapter Meeting

Boston, MA – At the September 24 NECA Boston Chapter Meeting, State Representative Harold Naughton, Chairman of the Joint Committee on Public Safety and Homeland Security, spoke on pending telecommunications licensing legislation, and the legislature's ongoing efforts to improve public safety, infrastructure and economic development.



L - R, Joe Bodio, LAN-TEL Communications, State Rep. Harold Naughton, Jr., Mike McDonald, McDonald Electrical

J. F. White Electrical and Mass Bay Electrical receive NECA Safety Awards

Boston, MA – Two Boston NECA members, J.F. White Electrical and Mass Bay Electrical were honored with NECA District 1 Safety Awards at the September Chapter Meeting. J.F. White Electrical received a 2012 Safety Excellence Award and Zero Injury Safety Award. Mass Bay was recognized for its safety performance with the Zero Injury Safety Award.

Moulison North Corporation joins NECA Boston, Maine Division

West Newton, MA – NECA Boston Chapter, Maine Division proudly welcomes Moulison North Corporation, an electrical contracting company headquartered in Biddeford, Maine. Moulison North specializes in heavy electrical installations for airport and highway infrastructure projects throughout Northern New England, Massachusetts, Rhode Island, and New York. The company also operates a satellite office in Concord, New Hampshire.



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

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

E.S. Boulos Co. Completes New Portsmouth Memorial Bridge Project – Bridge Linking Portsmouth, NH and Kittery, ME Opens

ESB's Comprehensive Electrical Construction Meets 14-month Schedule; Architect: HNTB, Inc., NYC, NY and Boston, MA; GC: Archer Western, Canton, MA

Portsmouth, NH – On August 8, 2013, E.S. Boulos Company's (ESB) project team, headed by Senior PM Bob Goulet and GF Patrick Kennedy, joined with Maine and New Hampshire officials, construction team members, and New Hampshire and Maine residents to celebrate the opening of the new Portsmouth Memorial Bridge. The bridge spans for 900 feet on U.S. Route 1 over the Piscataqua River, connecting Portsmouth, NH and Kittery, ME and features a lift that spans 300 feet in length and is 160 feet tall.

ESB's project scope included installation of the bridge's electrical lift controls, power distribution system, CCTV, and fire alarm system. The bridge



also has a 215kW back-up generator providing emergency power. ESB installed over 11 miles (approximately 60,000 feet) of fiberglass conduit, which was specified to withstand the elements and avoid rusting.

The fast-track project commenced in early summer 2012 and was completed by July 2013, as scheduled. At peak construction, ESB supervised a field crew of more than 30 electricians and tel/data technicians based out of IBEW Local 490 in Concord, NH.

ESB teamed with general contractor Archer Western's regional office in Canton, MA and project architectural firm HNTB, Inc. of New York. Designed by HNTB's chief bridge engineer, Theodore Zoli, the new Memorial Bridge is the first gusset-less truss bridge in the world and the first to use the cold-bending of steel in its construction. The bridge is also the first that has its mechanical room under the bridge. ■

Broadway Electrical Company Completes Boston's Largest Rooftop Solar Array at 65 Sprague Street, Hyde Park

974kW PV Installation for First Highland Management & Development

Boston, MA – Broadway Electrical Company, based in Boston, has completed engineering, procurement and construction of Boston's largest rooftop solar array at 65 Sprague Street in the Boston/Dedham Commerce Park. Broadway managed a crew of 20 IBEW Local 103 electricians in the installation of the 974kW solar power system, which is comprised of 3,300 solar panels covering 120,000 square feet of the facility's roof. The installation represents approximately one-tenth of the total number of rooftop solar panels currently in Boston and the project puts the city over the 10.6MW mark in solar energy installations.

The 450,000 square-foot multi-use, turn-of-the-century building, owned by First Highland Management & Development, is currently home to a diverse group of tenants, including RR Donnelly, the Dancing Deer Baking Company and the non-profit Hyde Park Open Studios.

Interconnected to the NSTAR power grid, the

solar electric system will produce nearly 65% of the electricity consumed by the building, generating renewable power that has a market value of more than \$180,000 annually. The system utilizes a commercial-



scale data acquisition system from AlsoEnergy for monitoring energy output.

Peter Murphy, owner of First Highland, commented on the benefits of the renewable project. "This ambitious green project is a financial slam dunk for First Highland. The solar investments

save us and our tenants money, provide cash flow, and give us a marketing edge for the building," Murphy said.

The sale of Solar Renewable Energy Certificates (SRECs), a state incentive based on power production from the array, will help generate cash flow from the project. Financing for the project was provided by Commerce Bank.

"Commercial real estate owners understand the financial benefits of solar incentives currently offered by the state, and the value that solar installations bring to their properties and bottom line," Broadway



Electrical CEO Lawrence Hurwitz said.

Broadway will also provide operations and maintenance of the PV system. ■

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

Intelligent Systems and Controls Contractors (iSYS) Installs Cutting Edge Security Systems for MBTA

Subcontractor to J.F. White Electrical on MBTA Subway Tunnel Security, Emergency Training Center, Red Line Security Enhancements, and Wellington Yard Projects

Boston, MA – In response to the public's need for increased security measures, under the leadership of Randy Clarke, Senior Director of Security and Emergency Management for the Mass. Department of Transportation (MA DOT), the MBTA has invested in a state-of-the-art Integrated Security System. The "smart security system," is comprised of thousands

of cameras, subway tunnel monitoring, electronic access control, variable message signs, and sound systems. The security information is integrated in real-time from five station hubs at Transit Police Headquarters and at the Operations Control Center and is predictive not just reactive, and automatically programmed to key in on problem areas and send out appropriate response data.

NECA Boston member, Intelligent Systems and Controls Contractors (iSYS), based in Canton, Mass., has completed key security projects integral to the MBTA Integrated Security System initiative. iSYS has served as the security system subcontractor to primary electrical contractor, **J.F. White Electrical** of Framingham, Mass., on the MBTA Subway Tunnel Security System, the MBTA Emergency Training Center, Red Line Security Enhancements, and Wellington Yard Security Improvements.



MBTA SUBWAY TUNNEL SECURITY MONITORING SYSTEM PROJECT

This comprehensive tunnel security project entailed the engineering and installation of a state-of-the-art security monitoring system throughout all tunnels within the MBTA Subway System, including the Orange, Red, Green, and Blue Lines.

iSYS furnished and installed the subway system's integrated access control system, comprised of an elaborately integrated array of security cameras and card readers throughout the tunnel system. Within its scope, the contractor also installed various high security technology systems as part of the Physical Security Integrated Management System. The entire security system ties into the MBTA's Operation Control Center (OCC).

"Security system planning and front-end engineering were critically important to the success of the project," said iSYS Chief Operating

Officer Michael Daly.

The J.F. White and iSYS project teams met significant logistical challenges as electrical, power, and security installations were performed

in a very challenging underground environment. iSYS met the aggressive project timeline on a

limited access work schedule. All security work was performed in the early morning hours, between 2AM to 4AM.

Coordination between J.F. White, iSYS, and the MBTA was critical to the project's success. As J.F. White completed power and electrical infrastructure installations in each tunnel, iSYS installed and integrated the security monitoring system components. iSYS worked closely with key MBTA personnel, including power specialists, who provided power shutoffs, and also with flagging personnel.

iSYS managed IBEW Local 103 telecom technicians in the fast-track project, which commenced in July 2011 and was completed by late 2012.

NECA Boston contractor, **Richard W. Reid Electric Company, Inc.** also served as a subcontractor to J.F. White Electrical on the project.



MBTA EMERGENCY TRAINING CENTER PROJECT COMPLETE

In June 2013, iSYS completed an electronic security system installation for the new MBTA Emergency Training Center in Boston. The contractor's scope included providing the facility's Electronic Access Control System, Video Surveillance System, Fire Alarm System and Fiber Optic Communications System. All systems integrate into the MBTA's OCC. Brian Ingalls supervised Local 103 technicians in the eight-month project.

RED LINE SECURITY ENHANCEMENT

iSYS has also completed the fast-track Red Line Security improvement project, teaming with J.F. White Electrical. The project included installation of new Video Surveillance and Access Control Systems within the Red Line and their integration into the MBTA's OCC. The project was headed by iSYS PM Karen Coye.

WELLINGTON YARD SECURITY UPGRADE

Concurrently, the NECA integrated systems contractor performed security and communications upgrades to Wellington Yard, which also tie into the Physical Security Information Management System at the MBTA's Operations Control Center.

iSYS is currently underway with security installations at Government Center Station, Acton Station and Yawkey Station, working for NECA contractor **Mass Bay Electrical**.

The contractor also recently completed the MA DOT Fiberoptic Network Installation on I-95 and Route 2 as a subcontractor to **J.F. White Electrical**.

Intelligent Systems and Control Contractors (iSYS) provides Integrated Systems for diverse commercial, institutional, public and transportation projects. The firm specializes in low voltage system planning, design, installation, and integration. Founded by CEO Maryanne Cataldo, iSYS is a W/DBE. iSYS has been awarded the Statewide Security FAC64 contract. The company also has both the WAN and CCTV Maintenance contracts with the MBTA. ■

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

State Electric Corp. Underway with \$3.5M Electrical Construction of Lesley University's College of Art & Design in Porter Square, Cambridge

NECA Member teams with Architect: Bruner/Cott, Cambridge; GC: John Moriarty and Associates, Winchester; EE: Van Zelm Engineers, Farmington, CT

Cambridge, MA – State Electric Corp. of Bedford, Mass. has been awarded and is in early phase electrical construction of Lesley University's, College of Art & Design project on Massachusetts Avenue in Porter Square, Cambridge, Mass. The new \$46 million Lunder Arts Center, a landmark project for the college, integrates modern design and historic architecture. A new, contemporary four-story structure will connect to the historic former North Prospect Church by a three-story, glass wall commons. The commons will serve as the entrance to the Arts Center, opening to a plaza on Massachusetts Avenue. The former church will be relocated in November to a lot adjacent to the new facility, and in an adaptive reuse project will undergo an extensive restora-

tion and renovation to incorporate an arts library and art studios.



The Lunder Arts Center will house classrooms, studios, digital and other labs, faculty offices, and flexible spaces for collaborative work. The ground floor will feature art exhibition spaces, designed to invite the public and enliven the streetscape.

State Electric's comprehensive electrical project

scope includes providing the facility's primary and emergency power, lighting and lighting control systems, and fire alarm system installations. The NECA contractor is currently providing temporary power to the site. State Electric project manager Chris Mahoney and foreman Mark Federico are managing the project with an electrical field crew expected to reach upwards of 14 Local 103 electricians and technicians at peak construction. The complex project is scheduled for completion in October 2014.

The Lunder Arts Center, designed by Bruner/Cott & Associates, will be built to meet LEED Silver certification standards. John Moriarty and Associates is the project's general contractor. The project is partially funded by the Massachusetts Cultural Facilities Fund. ■

Moulison North Completes \$1.4M Portland International Jetport Runway 18-36 Lighting Project

GC: Shaw Brothers Construction, Gorham, ME; Architect: Deluca-Hoffman Associates, Inc., South Portland, ME

Portland, ME – At the Portland International Jetport in Portland, Maine, Moulison North Corporation recently completed installation of Runway and Taxiway Lighting for Runway 18-36. The project scope included installation of new FAA Navigational Aids – Runway End Identifier Lights (REIL) and a Precision Approach Path Indicator (PAPI) lighting system. The contractor also provided civil construction related to the

electrical installations, including trenching work and construction of concrete foundations.

Project Manager Bill Rowe and Electrical Foreman Peter Lord supervised the field crew of six IBEW Local 567 electricians and seven civil construction workers in the fast-track, eight-month project, which commenced in spring 2012 and was completed by year-end. Moulison North performed all installations without

disruption to airport operations. ■

Founded in 1994 by company principal, Ken Moulison, Moulison North recently became a signatory contractor to IBEW Local 567 in Lewiston, Maine, IBEW Local 490 in Concord, NH, IBEW Local 103 in Boston, and IBEW Local 96 in Worcester. The contractor employs an office staff and field crew ranging from 60 and 75 people.

Moulison North Completes Brightman Street Bridge Project in Fall River, MA

Also underway with Burns Bridge Replacement Project in Worcester

Bedford, ME – High profile projects in Massachusetts include the recently completed new Brightman Street Bridge project in Fall River, Mass.,



which encompassed bridge and roadway lighting as well as traffic signal installations. The firm

is also underway with the Mass. DOT Burns Bridge Replacement Project in Worcester, providing roadway and bridge lighting, as well as special effect, aesthetic

lighting installations. A Worcester Airport Runway Lighting project is concurrently underway. ■

Moulison North Lighting Maine and New Hampshire's Runways & Highways

Bedford, ME – Moulison North also recently completed airport Runway Lighting projects at the Dexter, Bangor and Augusta, Maine Airports. The NECA contractor is currently providing installations for a Maine DOT Highway Lighting project.

In New Hampshire, Moulison has completed an Airport Runway Lighting project at Pease Air Force Base and has been involved in numerous Manchester-Boston Airport expansion projects over the past ten years. ■

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

E. S. Boulos Completes \$27.5M Electrical Construction of 645,000 sf MGMC Regional Hospital in North Augusta, ME

North Augusta, ME – On November 9, Maine General Medical Center's new \$312M regional hospital in North Augusta, Maine – the Alford Center for Health, opened to new patients, nine-months ahead of schedule. NECA contractor E.S. Boulos Company of Westbrook, ME, provided the facility's

a 192-bed, four level, inpatient surgical and acute care facility. The hospital has three super-sized operating rooms, seven specialty and general

ESB worked on an *Integrated Project Delivery (IPD)* team with CMs HP Cummings Construction Company of Winthrop, ME and Robins and Morton of Birmingham, AL, and Architects/Engineers, SMRT and TRO/Jung Brannen. State-



On September 28, a dedication ceremony, was held as a gathering of approximately 1,500 hospital officials, representatives from the local and State of Maine government, and hospital contributors joining in the ribbon-cutting to celebrate completion of the facility



comprehensive \$27.5M electrical construction: primary and emergency power systems, electrical fit-out, networked lighting and lighting control systems, tel/data systems, fire alarm and security systems, nurse call and patient locator systems.

The 645,000 square-foot MGMC facility is

operating rooms, six procedure rooms for endoscopy and cystoscopy, and a Cardiac Cath Lab. All patient rooms are single-occupancy, providing privacy for patients and reduced risk of infection. MGMC's Alford Center for Health is the first LEED® Certified healthcare facility in Maine.

of-the-art construction methods were employed, including BIM, LEAN Construction, and Multi-Trade Prefabrication.

ESB's Senior Project Manager Lescar Beane, Project Manager Rob Coates, Project Engineer Tom Clements, and Superintendent John Fedorovich adeptly managed the three-year project. At peak construction ESB supervised a field crew of 135 IBEW electricians and technicians. ■

NECA Boston and Local 103 Host Massachusetts Wind Working Group meeting

Dorchester, MA – On October 30th, NECA Boston and IBEW Local 103 hosted a meeting of the Massachusetts Wind Working Group (MWWG) at the Local 103 headquarters in Dorchester. The seminar featured updates from state officials on the MassCEC/MassDEP Research Study on Wind Turbine Acoustics, the MassDEP's Wind and Noise Technical Advisory Group and the Department of Public Utilities Siting Division's research into best practices for siting wind turbines. There was also a panel presentation on Shadow-Flicker.

The MWWG provides a forum for wind energy stakeholders to promote smart and successful wind energy development in the Commonwealth of Massachusetts. The organization is comprised of a diverse group of wind energy stakeholders, including developers; environmental groups; federal, state, and local officials;

Panel speakers and topics included:

Richard Lampeter, Senior Scientist, Epsilon Associates, Inc. – "Evaluating shadow flicker in the current regulatory environment"

Georg Becker-Birck, Senior Consultant & Project Manager WTG, K2 Management Inc. – "The European view and practical mitigation methods"

Elizabeth King, Atmospheric Scientist/Wind Analyst, EAPC Wind Energy – "Methodology and results from shadow flicker modeling in Kingston, MA"

Sumul Shah, President, Lumus Construction, Inc. – "Case studies on flicker impacts: Scituate Wind and Fairhaven Wind"

academic institutions; utility representatives; lawyers; advocacy groups; turbine manufacturers; and farming and rural interests. The MWWG is committed to small scale (residential/farm), community scale, and commercial scale wind energy development. The MWWG is currently funded by the Massachusetts Clean Energy Center and is managed by the University of Massachusetts Amherst's Wind Energy Center. ■



IBEW Local 103 Business Agent Lou Antonellis introduces panelists and welcomes attendees of the Massachusetts Wind Working Group meeting.

A Holiday Season of Great Expectations for Greater Boston *Continued from p.1*

and vitality created by Mayor Menino and the BRA.

Well-planned developments throughout

Boston have been and will continue to be the catalyst that make ours one of the world's great cities, and thereby enhance the lives

of our region's residents.

NECA looks forward to building a bright future for our region in 2014. ■

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

J. & M. Brown Shines in MIT Great Dome LED Lighting Renovation – Project Wins 2013 ENR Merit Award

NECA Contractor teams with GC: Shawmut Construction, Boston, MA; A/E: Simpson Gumpertz & Heger, Waltham, MA; Lighting Designer: Sladen Feinstein, Boston, MA

Cambridge, MA – The Great Dome at MIT's Building 10 is shining brighter than ever, thanks to the intricate lighting renovation recently provided by J. & M. Brown Company (JMB), of Jamaica Plain, Mass. The landmark project was recently awarded the ENR 2013 Best Projects Merit Award in the Renovation/Restoration category.

The iconic Great Dome now features three levels of LED lighting, as JMB provided elaborate wiring and installation of 32 custom LED downlights in the clerestory/upper dome, 32 custom Lumenpulse LED uplights in the acanthus detail of the dome, and 50 LED cover lights around its lower level perimeter. The historic building's interior lighting is controlled by a state-of-the-art Sensor Switch programmable lighting control system.

The NECA contractor also upgraded the facility's emergency lighting system and installed new wiring for desks on the Dome floor in the study room.

The lighting system required concealed wiring



within the dome, achieved through the project team's elaborate pre-planning of wiring layouts. JMB met significant accessibility and logistical challenges, as electrical work was performed at heights 140 feet above the Great Dome's Barker Engineering Library's reading room.

J. & M. Brown Special Projects Division PM Stephen Cabral headed the project team, supervising a highly skilled crew of electricians for the duration of the four-month project. Cabral has managed numerous historical restoration and renovation projects while at J. & M. Brown, including the Trinity Church in Boston and the

African Meeting House on Beacon Hill. He noted that the delivery of such high quality installations is the trademark of J. & M. Brown and made possible by employing the most talented and well-trained IBEW Local 103 electricians in Massachusetts

"J. & M. Brown is proud to have worked on the MIT Great Dome lighting renovation with a dedicated and talented project team," said Cabral.

"The project required significant planning and coordination and the results are a beautifully and uniformly lit interior space, complementing the architectural detail of the historic building and providing students with an ideal atmosphere in which to study."

Integral to the Great Dome lighting renovation, the building's intricate oculus skylight has been restored and reopened this year for the first time in more than 70 years. The oculus had been covered with blackout shades since 1942 to prevent it from being used as an enemy beacon during World War II. MIT's signature building, the Great Dome was built in 1916. ■

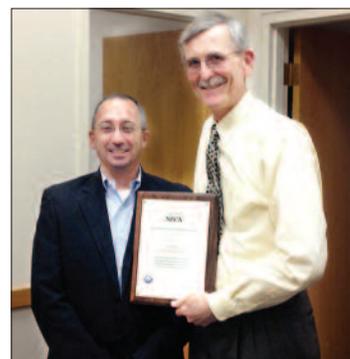
INDUSTRY NEWS

Cablenet Systems Honored as NECA 25-Year Member

West Newton, MA – Cablenet Systems, Inc., a telecommunications contractor based in Peabody, Massachusetts, has recently been recognized by the National Electrical Contractors Association as a 25-year NECA member. The company provides low voltage communications cabling, specializing in voice/data systems for commercial buildings, data centers, law firms, insurance companies, pharmaceutical/lab

facilities, and manufacturing facilities throughout Greater Boston and southern New Hampshire. Cablenet Systems has completed projects for such prominent clients as Monster, Schering-Plough, LoJack, WilmerHale and Constant Contact.

Cablenet Systems President Richard D. Aiello, Jr. accepts 25-year member award from Boston Chapter Executive Manager Glenn Kingsbury.



NECA Boston Hosts Finnish Contractors – Tour EF Project in Cambridge

Cambridge, MA – On September 27, NECA Boston arranged a tour of the new Education First (EF) North American headquarters building in Cambridge for a group of 14 electrical contractors from Finland. The walk-through was led by NECA member E.G. Sawyer Company's Project Manager Joe Carey and Chapter Manager Glenn Kingsbury. E.G. Sawyer is



on the EF project team headed by construction manager Skanska USA. In the United States on a study mission, the Finnish contractors also visited sites in Washington, D.C. and New York City. Design-build construction, pre-fabrication and workforce management were among the topics of discussion. ■