



125 Aviation Ave Suite 4  
Portsmouth, NH 03801

P : 6 0 3 - 3 1 9 - 8 2 4 4

F : 6 0 3 - 3 1 9 - 8 5 6 1

999 Broadway Suite 206  
Saugus, MA 01906-4510

P : 7 8 1 - 2 3 3 - 4 8 0 8

F : 7 8 1 - 2 3 3 - 4 8 4 8

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# Charles Mace, PE, LEED AP BD&C

## Senior Electrical Engineer

### EDUCATION

Villanova University, Villanova, PA Bachelor of Science in Electrical Engineering, 1996

### REGISTRATION / PROFESSIONAL AFFILIATIONS

Professional Engineer, Commonwealth of MA, 2006, #46492, NH, ME, RI, NC

LEED Accredited, 2006

Mr. Mace is an electrical engineer with more than 15 years of experience providing design and construction administration for the installation of electrical systems in educational, industrial, and commercial facilities. He has developed expertise in lighting for rail stations, roadways, streetscapes, tunnels, and bridges. He has experience designing medium voltage systems and infrastructure. Mr. Mace has a strong background surveying existing systems and designing systems improvements compliant with the Americans with Disabilities Act (ADA), including fire alarm, intercom/clock, emergency, site lighting, and security.

### RELEVANT EXPERIENCE

#### **USCG New Station Building Design-Build, Sabine, TX**

Provided electrical engineering support for a new 47,000-sf U.S. Coast Guard (USCG) station and ancillary buildings in Sabine, TX. Mr. Mace was responsible for the design of all electrical systems, including lighting, telecommunications, fire alarms, and security. The station, which is located on the Gulf of Mexico, was designed and constructed to withstand Category 4 hurricane winds and an 18-foot storm surge. It will also feature sustainable elements and will be submitted for LEED Silver certification.

#### **IPG One Mega Watt Co-gen, Oxford, MA**

IPG headquarters located in Oxford, MA manufactures high power fiber lasers and needs reliable power to keep production running. CSI is helping to design reliable back-up power generation and is using the by-products of the generation to heat and cool areas of the facility, this process is also known as cogeneration. In this phased approach (3) 1MW generators will be added incrementally to provide back-up power to the facilities many on-site buildings. The design includes future flexibility to add future critical loads to the cogeneration distribution

#### **U.S. Air Force Hanscom Air Force Base IDIQ, Bedford, MA**

Performed electrical engineering services for various building renovations and upgrades at the Hanscom Air Force Base in Bedford, MA. Mr. Mace worked on two child daycare centers, a command conference center, a radio tower array facility, and a base theater. The redesign included a new pad-mount transformer, service conduit, conductors, and all building distribution equipment.

#### **MSBA 2010 Needs Survey, Statewide, MA**

Reviewed surveys of public elementary, middle, high, and vocational technical schools throughout the Commonwealth of Massachusetts as part of the \$1.75 million 2010 Needs Survey for the Massachusetts School Building Authority (MSBA). STV conducted the surveys at 1,778 schools to identify their general conditions. Mr. Mace helped establish the process for assessing the electrical conditions of schools and reviewed the work of engineers to make sure they followed protocol during their site visits.