

## Case Study



### Overview

#### Site Details

- New construction
- Completed March 2010
- Offices and affiliated retail centers
- 70,000 square feet
- Located in Boston, Massachusetts

#### Savings Numbers

The *New Construction Guide* is a nationally recognized resource bringing together 50 criteria defining high performance in building envelope, lighting, HVAC, power systems and controls.

This easy-to-use guide helps building design and construction professionals exceed state and national energy standards such as ASHRAE 90.1-2007 by up to 40%.

### NEW ENGLAND REGIONAL COUNCIL OF CARPENTERS

The New England Regional Council of Carpenters (NERCC) represents 22,000 carpenters, pile drivers, shop and mill men, and floorcoverers working in the New England states.

In 2007, NERCC purchased a building on Dorchester Avenue in Boston to be the site of its new headquarters. In March 2010, NERCC opened its new headquarters—a super efficient, green building that boasts both bold traditional and modern architectural features. The designers of the new building worked with NSTAR to follow Advanced Buildings® *Core Performance Guide*.

#### Technologies and Design Strategies:

**Envelope.** Air and vapor barriers were installed on gypsum sheathing. Over 27,000 square feet of insulation and membrane were used. High performance doors and windows were installed throughout the building.

**Lighting and Controls.** Incandescent lights with motion sensors and automatic shut-off, controls in every regularly occupied space, two-level occupancy sensors and integrally-switched task lights were installed to achieve an estimated annual savings of 30%.

**HVAC.** VAV rooftop units with hot water reheat were installed along with 12 MBH split-system units.

**Enhanced Strategies.** Additional green measures included the installation of the following water saving features: a stormwater system that captures and treats 90% of annual rainfall, and low-flow toilets, urinals and faucets. In addition, a cool

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roof and light grey concrete hardscape with a Solar Reflective Index of at least 69.8% were installed. Low volatile organic compound (VOC) adhesives, paints and composites were used whenever possible.

### *Project Team*

#### **Owner Representative**

Mark Erlich  
New England Regional Council of  
Carpenters

#### **Architect**

ADD, Inc.  
Boston, Massachusetts

#### **Mechanical & Electrical Engineer**

RDK Engineers  
Andover, Massachusetts

#### **Site Engineer**

Andelman and Lelek Engineering  
Norwood, Massachusetts

#### **Sponsor Utility**

NSTAR  
[www.nstar.com](http://www.nstar.com)

### *About Advanced Buildings*

Advanced Buildings offers a direct path to high energy performance in new commercial building projects. An Advanced Buildings designation represents a best-in-class building that adds value and stands out for its energy efficiency and healthy environments. In addition to the *New Construction Guide*, Advanced Buildings offers a suite of tools and resources that help design teams achieve superior energy efficiency.

Advanced Buildings is developed and managed by New Buildings Institute with support from utility and public benefits organizations as well as foundation funding.

### *New Buildings Institute*

New Buildings Institute (NBI) is a nonprofit organization working collaboratively with commercial building professionals and the energy industry to improve the energy performance of commercial buildings.

**For more information about Advanced Buildings *New Construction Guide*, visit: [www.advancedbuildings.net](http://www.advancedbuildings.net)**

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