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As a construction manager, it is important to help clients reduce energy-related costs and increase energy-efficiency

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There is no question the next decade will be a defining era for the A/E/C industry. Or, should I say, a redefining era. The methods in which buildings and communities are designed and constructed have exponentially changed the landscape of the built environment. Technologies such as BIM and 3D laser scanning have completely morphed the way A/E/C teams work together.

Our industry is in the midst of a renaissance spurred by innovation and a few key emerging markets. One of those emerging markets is the clean energy economy here in Massachusetts. In a recent report published by the Massachusetts Clean Energy Center, Massachusetts is 2nd, only to California, and is amongst the top 15 states leading this new economy in clean energy.

"It was the best of times - it was the worst of times." ~ Charles Dickens

We're in the worst recession since the 1930s. Yet we're fortunate enough to live in a state with world-class academic and innovation resources, an active venture capital community, a highly educated workforce, and a deep commitment to energy efficiency. Discussions about sustainability and energy use are no longer confined to the macro-level at the annual World Economic Forum. It's at the forefront of everyone's mind - especially our clients'.

As a construction manager, it is important we help our clients reduce their energy-related costs by helping them assess and increase their energy-efficiency. We do this in a number of different ways. Some methods are based on universal standards, such as the LEED rating system. Other methods are implemented via a systemic approach within the parameters of a deferred maintenance program or a facilities assessment, including energy audits.

Columbia Construction has been building LEED-rated facilities just about since the LEED rating system was released to the marketplace in 2000. Our first project was in 2004, for which we served as the LEED Administrator. In total, we have built six LEED-rated buildings. We are currently serving as the LEED Administrator for a new 90,000 s/f replacement hospital on Martha's Vineyard, for which we are targeting LEED Gold.

We also served as Hobbs Brook Management's construction manager for their two LEED Gold rated office buildings at 175-185 Wyman St. Columbia managed an extensive on-site recycling effort. Of the original 65,000-ton building that was demolished in order to construct 175-185 Wyman St., 95% of the steel and glass from the existing building was recycled and 100% of the concrete was recycled and reused on the site. All 39 of the construction-related LEED points we submitted were accepted by the USGBC - on the first go around! We also utilized BIM (Revit/NavisWorks) for visualization, clash detection and MEP coordination. There was not one RFI (Request for Information), in the field, for erecting over 2,000 tons of structural steel.

Because we understand not all of our clients are in a position to install renewable energy products and equipment such as solar panels, geothermal wells, and wind turbines, we also help our clients take a more passive approach. For example, we have worked with our architectural partners to help our clients explore passive sustainable strategies for cooling, heating and daylighting using thermal modeling. And, it's no secret that water conservation, using products such as low-flow fixtures, all tolled, can help clients realize a 30% to 50% water-use savings.

It is for these reasons Columbia has launched a new energy division. Our primary focus is in upgrading and retrofitting older buildings. Our primary goal is to provide solutions that help building owners and/or lessees save money in operating costs. The added value is helping our clients reduce their carbon footprint on the world.

Thinking BIG is good. But, when it comes to helping our clients design, build or retrofit more energy-efficient buildings...sometimes less is more.

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