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# Accounting and Taxation

### ECONOMY, SUSTAINABILITY AND HEALTH: THE BENEFITS OF ENERGY-EFFICIENT DESIG

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**by Sam Mortazavi,** alliantgroup Associate **Interview with Nick Worley,** alliantgroup Director

The son of an architect and an engineer by trade, Nick Worley has a simple answer for why he first chose a career in design.

"It's in my blood," said Nick. "At least the AEC (architecture, engineering and construction) part is. My dad is an architect. He graduated from Rice. He always used to take me along on his site visits and walk-throughs (of buildings) while they were still under construction. I was fascinated by this."

An interest that began at a young age would eventually spark a career. Years later, after receiving both his bachelor's and master's degrees in civil engineering from Texas A&M University, Nick would begin a seven-year career as a structural engineer and a design consultant, working in almost all aspects of the AEC industries. From work on government and commercial structures such as hospitals, schools and office buildings, to residential work on apartments, hotels and houses, Nick has done a little bit of everything during his career as an engineer.

Today, as a Director of Energy Services for alliantgroup's 179D division, Nick is continuing his service to the AEC industries, but in a different way. Leading a group of engineers, Nick's team plays a key role in helping clients identify federal tax savings under the Energy-Efficient Commercial Building Deduction, better known as section 179D, a federal tax incentive that rewards AEC companies for the energy-efficient enhancements they make to government-owned buildings. Nick's team of engineers models and performs onsite visits for potentially eligible buildings, ensuring that their clients are capturing the full tax deductions for their energy-saving activities.

It is rewarding work in many ways and goes hand in hand with one of his true passions: green building and design. Still an avid follower of all things AEC, Nick first noticed the trend toward energy efficiency a decade ago as more and more of his peers began to pursue their Leadership in Energy and Environmental Design (LEED) certification. A LEED-accredited professional himself, Nick credits LEED for the increasing popularity of designs that are not only good for the environment, but that make sense from a business standpoint. As he sees it, the economics had to work out before businesses started to buy in.

"Nobody cares when polar ice caps are melting or when oceans are receding because it doesn't look tragic," said Nick. "It's harder to sell people for whatever reason. But that's why I like LEED a lot because it's conscious of the economics."

#### The triple bottom line: The benefits of energy efficiency

With recent studies now illustrating the clear economic advantages of green design, the growing trend that Nick first saw a decade ago has continued to gain steam, with more and more businesses embracing what he refers to as the "triple bottom line:" economy, sustainability and health. Referred to by some in the financial world as the *three Ps* (people, planet and profit), the concept has been embraced by forward-thinking businesses that now see the benefits of energy efficiency not only in an environmental context, but in their profit margins as well.

Case in point, according to numbers gathered by the U.S. Green Building Council (USGBC), owners of green buildings report that their return on investment improved by 19.2 percent on average for existing projects and 9.9 percent on average for new projects. The same USGBC report also references a study of employees working at financial institutions, finding that those employees working in LEED-certified buildings were "more productive and

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engaged in their work." The same study found that the annual utilities cost per employee in said green facilities was \$675.26 lower than in non-green facilities. In Nick's eyes, the reasons for better worker productivity are simple: the healthier the work environment, the healthier (and more productive) the employees.

"When I walk into a LEED building, I can feel it," said Nick. "The quality of the air you breathe in a LEED building is better. The lighting is better. You feel more connected with the environment. You're in a positive place, not in this dark, dank environment."

From improved employee productivity to reduced costs, energy efficiency is just good economics. And for AEC firms engaged in this kind of work, the bottom line benefits don't stop there, as the tax rewards can be quite substantial.

#### LEED and 179D: The path to tax savings

As the engineering lead on alliantgroup's 179D team, Nick has seen firsthand how LEED certification can put companies on the path to valuable energy-based tax deductions, oftentimes for what now amounts to the everyday projects of companies within the AEC community.

During a site visit to Georgia last year, Nick was able to identify significant deductions for a client by climbing up into the ceiling space to get a closer look at the insulation system. "I found that they were using an additional layer of insulation that helped the HVAC system qualify for 179D. It's exciting when you get into the guts and mechanics of a building and see new building technology being used for the first time." said Nick.

Originally passed by Congress as part of the Energy Policy Act of 2005, section 179D rewards companies for the energyefficient enhancements made to the interior lighting; heating, ventilating, and air conditioning (HVAC); and hot water systems of an eligible building, as well as enhancements made to the building's envelope. Depending on the number of systems made energy efficient, an AEC company can receive a tax deduction of up to \$1.80 per square foot for their eco-friendly work.

So how does this tax deduction relate to LEED? According to Nick, it's all about the energy standards used to determine eligibility. In order for a newly constructed building to become LEED v3 certified, one of the prerequisites is that the energy performance of the building must be about 10 percent more efficient than the 2007 standards set by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).

Why is this a big deal? To be eligible for 179D, the enhancements

an AEC company made to buildings placed into service before 2016 must surpass ASHRAE 2001 standards, meaning that if a building had already received LEED certification prior to January 1 of this year, the standard that they met was higher than the one they would need to meet to qualify for 179D. Due to the Protecting Americans from Tax Hikes (PATH) Act passed at the end of last year, buildings placed into service in 2016 will now be judged on a baseline of ASHRAE 2007 standards, with the raised baseline being a policy nod, of course, to modernizing energy-usage techniques and the need to raise thresholds accordingly.

The bottom line: If a building qualifies for LEED certification, that building will more than likely also qualify for 179D.

"There are ways to get LEED certified without meeting 179D requirements, theoretically and mathematically," said Nick. "But I've never seen it. Every LEED building we've had, we have found a 179D deduction."

With LEED and other green initiatives becoming more and more common, it is clear that 179D will continue to be a useful tool in promoting business behaviors that are not only good for the environment, but that will strengthen the U.S. economy for years to come. To Nick, these are the most satisfying aspects of his job – seeing the latest and greatest technologies and putting money back into the pockets of American businesses.

"When I'm onsite and I see something really cool, I get really excited," said Nick. "I can tell by the reaction of the people I'm with that they're grateful. They spent all of this money on (the building) and they love to see us nerds react to it.

"It's my passion. The AEC industry and sustainable design." 📿



**Nick Worley** is a Director and a professional engineer for alliantgroup's 179D team. Prior to joining alliantgroup, Nick was the Associate Vice President for a national structural design consulting firm. He worked for seven years in structural engineering and design consulting before moving over to the building energy arena.



**Sam Mortazavi** is an Associate at alliantgroup and a writer specializing in the U.S. tax code and its impact on American businesses. A former employee of a Big 4 accounting firm, he has been published in numerous national journals and publications, helping to introduce small and midsized businesses to valuable and often overlooked

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