

How Construction Managers Are Becoming Sustainability Superheroes

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The construction industry has been an environmentally destructive force. It's a significant greenhouse gas emitter and a notorious soil, air, water, and sound polluter. Construction professionals must take meaningful steps toward sustainability to mitigate the worst effects of global warming and contribute to climate resilience.

Construction managers are uniquely positioned to lead the charge in effecting eco-friendly initiatives. There are many ways to be a sustainability superhero, but focusing on these seven best practices is an excellent start.

1. PUTTING A PREMIUM ON CIRCULARITY

The circular economy is about minimizing waste, curbing greenhouse gas emissions and leaving virgin natural resources untouched. It comprises businesses engaging in recycling, manufacturing reusable goods, and producing and consuming clean, renewable energy. These enterprises represent sustainability because they help make the world go round while causing little to no environmental impact. Their practices don't make the planet uninhabitable, so they can keep doing business forever – hence, circular.

The linear economy is the opposite. It doesn't need an introduction since it's the mainstream business model of producing, buying, and consuming goods, and throwing them away at the end of their life cycles. The status quo is unsustainable because the world's finite resources will run out eventually and most nonbiodegradable waste will outlive everyone and everything alive today.



The construction industry [consumes 40% of raw materials](#) worldwide. The Circularity Gap Report 2022 says [the world is only 8.6% circular](#), so most resources extracted and used end up as waste. With these two pressing issues in mind, recycling must be high on the agenda of every construction manager with a circular mindset.

Use your position to hire an architect or architectural firm with expertise in green building design. Sustainable structures contain elements optimized for deconstruction – like standardized factory-built components – making them easy to recover and repurpose down the road.

When tearing down older structures, salvage as many materials as possible. Keeping debris from clogging up landfills increases the supply of reclaimed resources on the market. High availability of salvaged materials means more business for circular economy participants and less demand for virgin resource extraction.

Deconstruction is costlier and more labor-intensive than demolition. Still, you can break even by taking advantage of financial incentives rewarding the recovery of salvageable building materials.

2. Support Local Suppliers

Local sourcing isn't sustainable per se but can minimize your projects' carbon footprints. This procurement strategy narrows the distance goods must travel to reach construction sites – which is essential in decarbonizing the world.

Maritime shipping [is responsible for 3%](#) of climate change gas emissions worldwide because it uses heavy fuel oil, a petroleum derivative. In the United States, transportation accounts for [29% of greenhouse gases](#) released into the atmosphere – 23% of which comes from freight-carrying trucks.

The global shipping industry and trucking companies remain heavily reliant on fossil fuels. Until they switch to green hydrogen or other clean, renewable energy sources, buying local products is more eco-friendly than importing goods from faraway domestic and international vendors.

3. Choosing Ethical Partners

Ethical sourcing is another superpower of green-minded construction managers. Selling eco-friendly building products isn't enough to make businesses green. Suppliers are virtuous when they observe humane business practices and go the extra mile to minimize their negative environmental impact. Teaming up with them can help [reduce your company's indirect greenhouse emissions](#) and decarbonize your value chain.

4. Adopting Digital Innovations

Digitalization empowers you to improve your operations in an environmentally friendly way. Cloud computing and IoT devices can help you go paperless, enabling critical team members to create, store, and edit plans digitally. These technologies also help disaster-proof your files, especially if climate change continues to [intensify weather conditions and instigate more destructive catastrophes](#) – such as dangerous heat waves, prolonged droughts, and frequent coastal floods.

Moreover, 3D printing revolutionizes construction. Programming a robot to build a structure with precision and

accuracy can result in up to [90% savings on raw materials](#) – a testament to its efficient use of resources.

In addition, this paradigm-shifting innovation promotes bio-based construction. 3D printing [lends itself to extrudable composites](#) based on wood waste, sawdust, and hemp hurd – sustainable materials that demand considerably less energy than their synthetic counterparts.

VR and AR [create immersive virtual environments](#) for spotting building design errors and reducing workplace accidents. Identifying construction red flags translates to fewer delays, ensuring your projects finish on time and lessening the disturbance they cause on local ecosystems.

Retrofitting construction vehicles with autonomous and electrification technology can reduce your projects' pollution and climate change gas emissions. Diesel [powers most construction vehicles](#), so making your fleet run on electricity and leveraging autonomy to eliminate wasteful driving behaviors will move the needle toward sustainability.

5. Articulating Your Passion

Green-minded construction managers promote the merits of sustainability whenever they can, especially when forging relationships with clients.

Developing excellent communication skills matters when expressing your thoughts to clients. Listen to them to understand their concerns and motivations, [make them feel respected and appreciated](#), and find opportunities to align your values with their objectives.

Authenticity is magnetizing, but honesty is just as important. Be transparent about the potential drawbacks to sustainable building practices – such as higher costs and lengthier timelines – to earn people's trust. Your clients are more likely to buy into your sustainability ideas when they have a high opinion of you.

6. Changing the Culture

Sustainability superheroes know that positive, lasting change results from millions of microdecisions. Use your influence to modify your team members' behaviors for the better and multiply your positive environmental impact.

Provide everyone with reusable dining tools to replace disposable utensils and containers. Discourage smoking to keep the site free of cigarette butts, which pollute the soil [with at least 16 toxic substances](#) and stick around for about five years. Stock up on biodegradable cups, and incentivize recycling. These simple deeds help lay the foundation for a sustainable culture.

7. Staying Ahead of the Curve

Be the authority on sustainable building trends. Be on the lookout for better practices you can implement in your daily operations, and strive to know the last word in digital technology to discover fresh ways to innovate. Think outside the box to maximize underutilized tools and concepts to help address environmental ills.

Some Superheroes Wear Hard Hats

Being a sustainability superhero can be taxing but fulfilling. Construction managers have the power to effect change, so use it wisely to be a force for good and make the world greener after every project. 🦸



About the Author

Rose Morrison is a freelance writer with a passion for sustainable building and innovative construction technologies. She has interviewed numerous industry professionals to gain insight into the current challenges facing the built industry and developing strategies for overcoming them.

Rose has over five years' experience writing in the industry and is the current managing editor of [Renovated.com](https://www.renovated.com). She also regularly contributes to other publications, such as NCCER, The Safety Mag, and Geospatial World. Follow Rose on [Twitter](#).

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