Build with Strength is committed to combatting climate change through product innovation, transparency, research and collaboration.

After all, concrete is the most widely used building material on the planet. It’s the cornerstone of nearly every building we live, work and play in. And it connects us through transportation infrastructure. Although concrete has one of the lowest carbon footprints of any building material on a per-unit weight basis, its popularity as a building material around the world makes it one of the highest carbon dioxide emitters — and we’re doing something about it.

Combatting Climate Change

The concrete industry is playing a critical role in how we build for a more sustainable future.

To reduce plant CO² emissions, the concrete industry is:

- Aggressively adopting rigorous environmental management systems to meet and exceed environmental regulations.
- Using energy-efficient plant equipment and delivery vehicles.
- Increasing the use of recycled materials and using renewable energy.
The concrete industry is actively working and continually evaluating all phases of production to reduce environmental footprint, from research and planning to material acquisition, production, transportation and recycling. We’ve been innovating for years – and we’re leading the way in numerous innovations that will minimize energy use, reduce emissions, conserve water and minimize waste.

Beyond Carbon
The concrete industry is actively working and continually evaluating all phases of production to reduce environmental footprint, from research and planning to material acquisition, production, transportation and recycling. We’ve been innovating for years – and we’re leading the way in numerous innovations that will minimize energy use, reduce emissions, conserve water and minimize waste.

Innovation
The industry is spending millions on research and education to develop and commercialize innovative products such as more efficient cements, cement substitutes, carbon absorbing cements and carbon capture technologies. New blended cements have significantly lower carbon footprint than portland cement. Waste byproducts like fly ash and slag cement enhance concrete’s performance while lowering its carbon footprint. New sources of these valuable byproducts are helping to meet demand. Cement and concrete companies are investing in new cements that absorb carbon dioxide during the curing process. And the best part, concrete absorbs carbon dioxide over time and the industry is developing methods for measuring and enhancing this process.

Research
Innovative concrete building systems such as insulating concrete forms and tilt-up sandwich panels are being studied to understand how they offer solutions to zero-energy buildings. Ultra-high-performance concrete can build taller, span farther and last longer than ever before.

Advocacy
As with any innovative product, there are barriers to implementation. Build with Strength supports building codes and standards to incorporate these new products, as well as to promote policies that encourage low carbon and carbon capture technologies.

Measurement
What gets measured gets done. Build with Strength is supporting the Architecture 2030 Challenge for Products in 2011, which is committing to reduce carbon footprint by 50% by 2030. To date, concrete companies have published more product-specific EPDs than any other product category.

Get more facts about concrete sustainability at BuildWithStrength.com.