



DID YOU KNOW? MOST STRUCTURES DON'T FAIL FROM OVERLOAD

(2-minute read)

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Did You Know?

Most structures don't fail from overload, they fail from neglected maintenance.

When people think about structural failures, they often imagine dramatic events: earthquakes, hurricanes, or loads far beyond what a structure was designed to carry. In reality, those scenarios are the exception, not the rule.

The most common cause of structural distress isn't sudden overload. It's time.

Small issues such as minor cracking, water intrusion, corrosion, or surface deterioration often begin quietly. Left unaddressed, they compound year after year. Moisture finds pathways. Reinforcement corrodes. Concrete weakens. Connections loosen. What started as a manageable maintenance item gradually becomes a costly repair, operational disruption, or, in worst cases, a safety concern.



This is why proactive maintenance is one of the most effective investments an owner can make.

Good engineering doesn't stop at design and construction. It anticipates how materials age, how environments attack structures, and how usage evolves over decades. A well-engineered structure isn't just built to meet today's code requirements, it's designed and maintained to perform reliably 10, 20, even 30 years into the future.

Routine inspections, timely repairs, and informed rehabilitation strategies can dramatically extend the service life of a structure. Addressing issues early often costs a fraction of what reactive, large-scale repairs require later. More importantly, proactive maintenance protects people, operations, and long-term value.



At its core, engineering is about foresight and responsibility. It's about understanding how structures behave over time and making informed decisions before small issues become major problems. When maintenance is treated as part of the full lifecycle, not an

afterthought, structures remain safer, more resilient, and more cost-effective.

If you're responsible for a facility or infrastructure asset, now is the time to assess its condition, plan ahead, and address concerns early before time turns minor wear into major repair.



So, the next time you walk through a facility, over a bridge, or along a pier, remember: Longevity isn't achieved by overbuilding alone. It's achieved by planning, monitoring, and caring for structures long after construction is complete.

Effective engineering proactively plans today for reliable performance tomorrow.