

9 MYTHS ABOUT BLAST-RESISTANT BUILDINGS—DEBUNKED

MYTH vs. REALITY

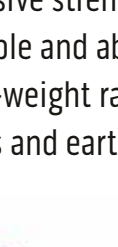


MYTH

01

Myth

Concrete is the strongest and safest material for blast-resistant buildings.

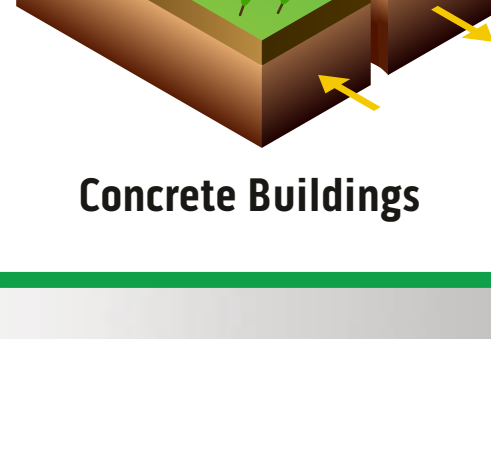


REALITY

01

Reality

While concrete has high compressive strength, it is prone to cracking under stress and is vulnerable to secondary hazards. In contrast, steel is flexible and absorbs energy by bending rather than breaking, reducing the risk of structural failure. With a higher strength-to-weight ratio (eight times stronger than concrete), steel provides superior protection against dynamic forces like blasts and earthquakes.



Concrete Buildings



MYTH

02

Myth

Blast-resistant buildings are industrial-looking and lack comfort.



REALITY

02

Reality

Our blast-resistant buildings can provide both functional safety and comfort with customizable layouts, advanced thermal insulation, and furniture. HVAC systems are installed and ready to go in RedGuard buildings to improve comfort and air quality, and buildings can be adapted to match other facilities through finishing options.

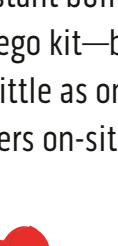


MYTH

03

Myth

Blast-resistant buildings disrupt your site with lengthy installation times.

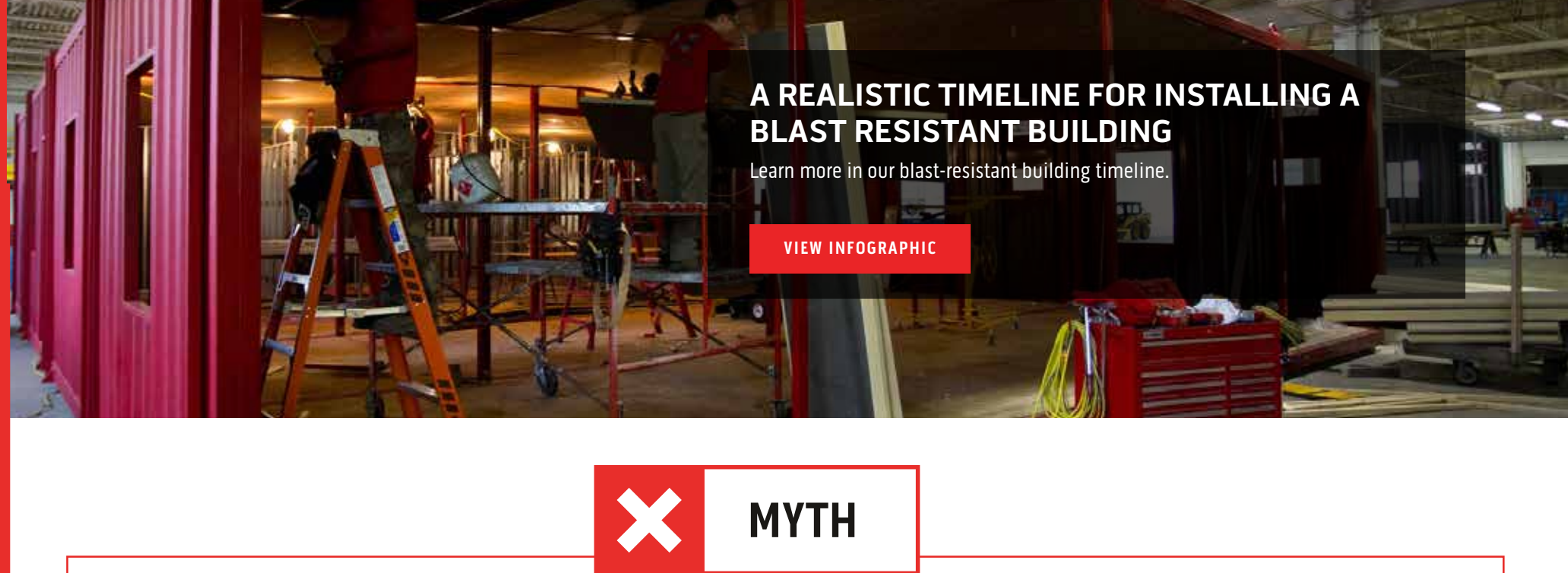
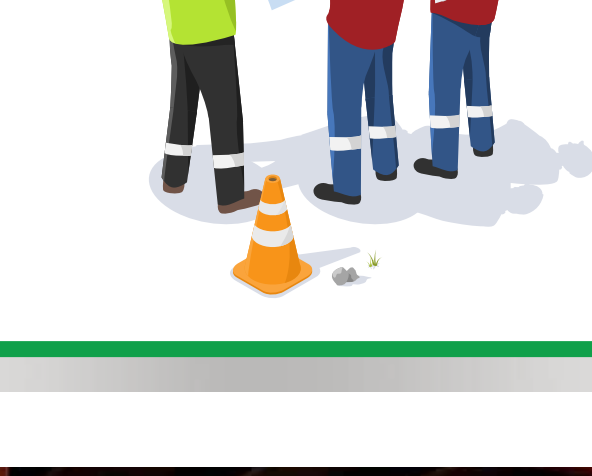


REALITY

03

Reality

When a RedGuard steel blast-resistant building arrives on-site, it's quickly and efficiently assembled—much like snapping together a large-scale Lego kit—by a small crew of just 2 to 4 people or less. Depending on the project's complexity, installation takes as little as one week to over a month. By comparison, concrete installations can last three months and require 10 to 12 workers on-site, significantly increasing disruption and safety risks.



A REALISTIC TIMELINE FOR INSTALLING A BLAST RESISTANT BUILDING

Learn more in our blast-resistant building timeline.

[VIEW INFOGRAPHIC](#)


MYTH

04

Myth

Large blast-resistant buildings are challenging to construct.

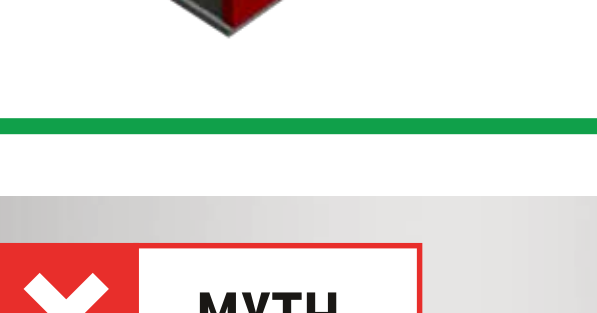


REALITY

04

Reality

Large blast-resistant buildings do require careful design, but working with RedGuard can make the challenge easier. Steel allows us to engineer expansive, highly durable buildings specifically designed to meet your facility's operational needs. Using [multi-section designs](#), we have combined standard 12-foot-wide modules to create structures that extend to 24 feet in width or longer. They are built to meet your facility's specific needs.



MYTH

05

Myth

Steel buildings are only temporary or for lease and are not as durable long-term.



REALITY

05

Reality

Steel blast-resistant buildings are engineered for permanence, but because they're modular, can be used as either long-term solutions, like our SafetySuite line, or temporarily like our LeaseFleet. We design buildings with heavy-gauge steel, reinforced framing, and secure foundation anchoring to maintain long-term stability. Steel's durability holds up in harsh environments and resists mold, rot, and corrosion when properly coated and maintained.



MYTH

06

Myth

Blast-resistant buildings are not cost-effective.

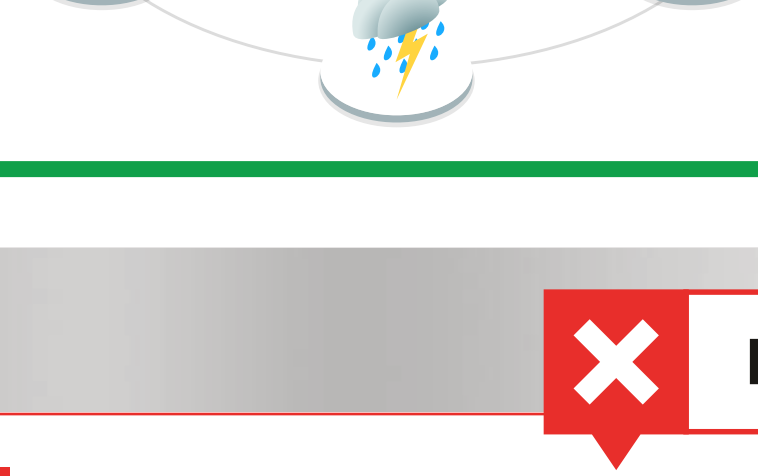


REALITY

06

Reality

Modular steel blast-resistant buildings significantly lower installation costs through a streamlined construction process that reduces labor, installation time, and on-site disruption. This translates to lower upfront costs. Over the long term, steel also offers savings in maintenance and downtime compared to concrete, which is more susceptible to cracking under stress. Steel flexes under pressure and is easier to inspect and maintain after a blast event.



MYTH

07

Myth

Every blast-resistant building needs complete multi-hazard protection.

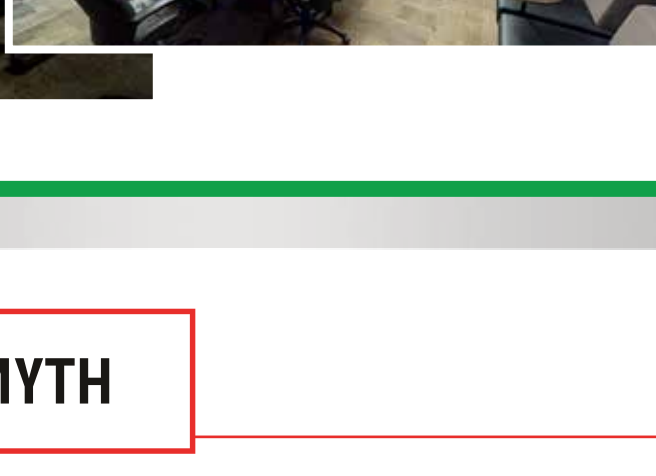
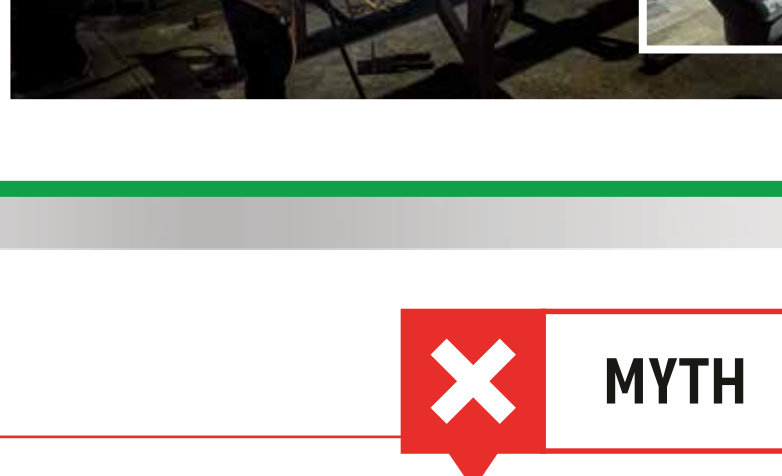


REALITY

07

Reality

Not every building in a hazardous area requires multi-hazard protection, which can increase costs and maintenance difficulties. We follow a precision hazard approach that involves identifying your site's unique hazards and addressing these through customizable solutions, including fire protection, heat regulation, or hazardous substance protection, not overbuilding for threats you don't face.



MYTH

08

Myth

Accuracy only matters in engineering, not throughout the entire process.

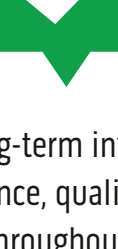
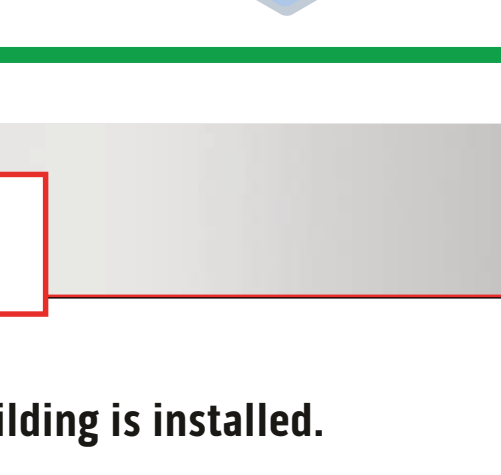
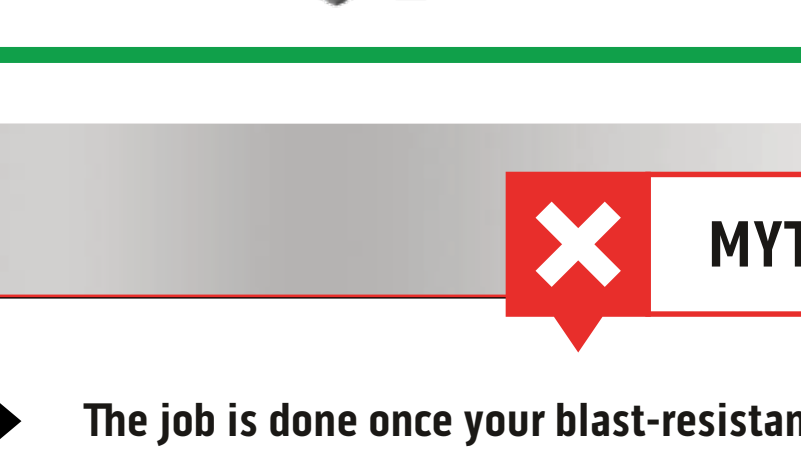


REALITY

08

Reality

A blast-resistant building is only as reliable as the process that creates it. Accuracy and sophistication in bid quoting are just as important as accuracy in execution, so you get exactly what you need without costly surprises. While some companies still rely on outdated methods prone to miscalculations and human error, RedGuard uses cloud-based estimating software to capture every detail correctly from the start.



MYTH

09

Myth

The job is done once your blast-resistant building is installed.

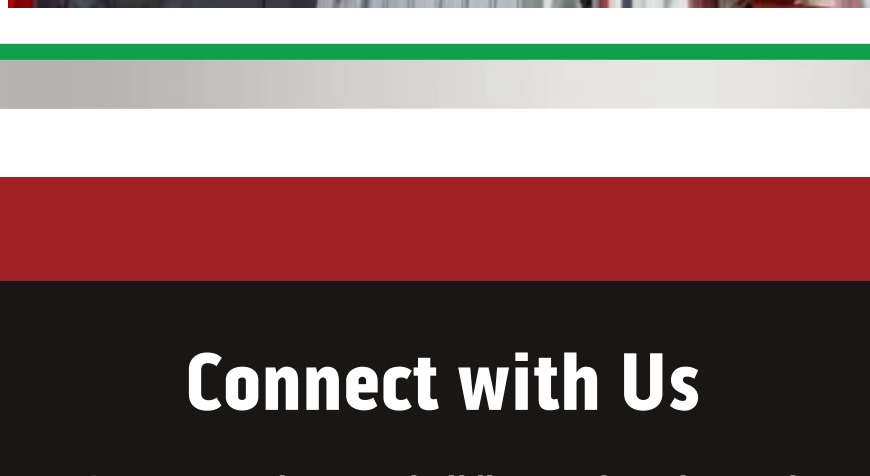


REALITY

09

Reality

A blast-resistant building is a long-term investment, and some of that value comes from service beyond delivery. From installation to ongoing maintenance, quality support impacts safety, performance, and longevity. RedGuard provides [timely and dependable service](#) throughout a building's entire lifecycle for all blast-resistant buildings, regardless of whether we designed them.



Connect with Us

Learn more about our buildings and services and how we can best support your blast-resistant needs.

[REQUEST A QUOTE](#)