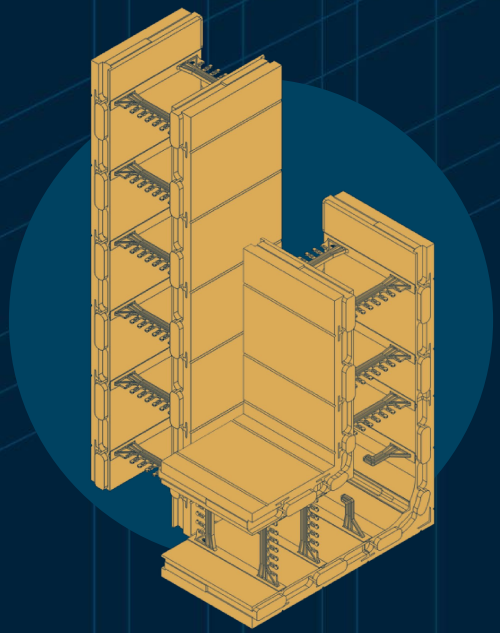
Monolith™

Polyurethane Insulated Concrete Forms

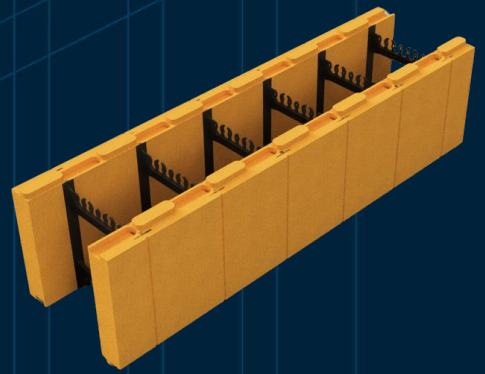
THE BETTER ICF.



Protect What You Love. Build Monolith.

We're not just another insulated concrete form (ICF) provider — we're a committed partner that delivers a simple and efficient solution to address the real-world challenges of builders, developers, and long-term real estate owners.

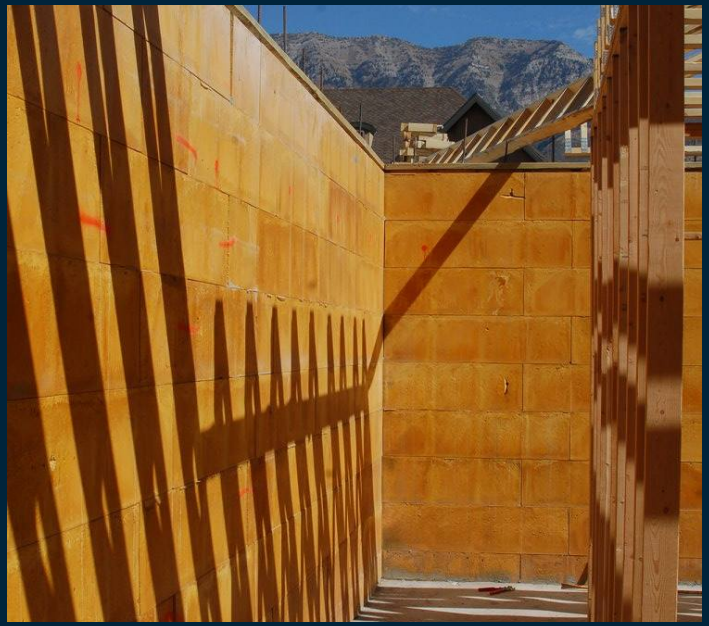
Our mission is to help you **build better.** We are committed to helping you build better through **innovation, trust, and excellence.**



What is ICF?

Insulated Concrete Form (ICF) construction is a modern building technique that combines the strength and durability of concrete with the exceptional insulating properties of rigid foam.

Hollow ICF blocks are stacked and reinforced with rebar before being filled with concrete in a **monolithic** pour. Unlike traditional concrete wall construction, where heavy, hard-to-move forms are removed after the concrete has cured, ICF's are lightweight and stay in place permanently as part of the structure. ICF systems are utilized in place of traditional or modern framing systems, CMU blocks, or poured-in-place concrete walls.



ICF Benefits:

Professionals

As a permanent and functional part of the building structure, ICF blocks seamlessly combine numerous steps from traditional building methods into **one streamlined process**.

Framing, sheathing, insulation, soundproofing, and vapor barriers are integrated into a single product — leading to less onsite complexity and often shorter construction times. ICF projects are able to be delivered in almost any weather which also contributes to lower project risk.

- Faster Construction
- Streamlined Workflow
- Fewer Sub-contractors
- All-weather Construction
- Reduced Skilled Labor
- Design Flexibility
- Lower Project Risk

ICF Benefits:

Owners

ICF buildings deliver excellent **energy efficiency**, **disaster resistance**, and better **interior comfort** over a much longer useful life cycle. They are durable efficient and long lasting.

For the homeowner or commercial property owner, ICF buildings **reduce** energy expenditures, insurance premiums, maintenance costs, and even lower replacement costs of HVAC equipment (smaller HVAC equipment is required for the same size space), while improving health through improved air quality and safety through structural strength.

- Disaster Resistance
- Energy Efficiency
- Increased Comfort
- Noise Reduction
- Insurance Savings
- Lower Maintenance Costs
- Better Resale Value

ICF BENEFITS

Surviving Explosion in East Harlem

In 2014, a four-story ICF building in New York withstood a massive natural gas explosion.

The blast leveled adjacent buildings, but the ICF structure emerged with no structural damage, protecting its occupants and vital infrastructure within. This incident underscores the blast-resistant capabilities of ICF, making it a preferred choice for both residential and commercial buildings in disaster-prone areas.

ICF BENEFITS

Hurricane Strong

When Hurricane Michael devastated the Florida Panhandle in 2018, one home stood resilient amidst the destruction.

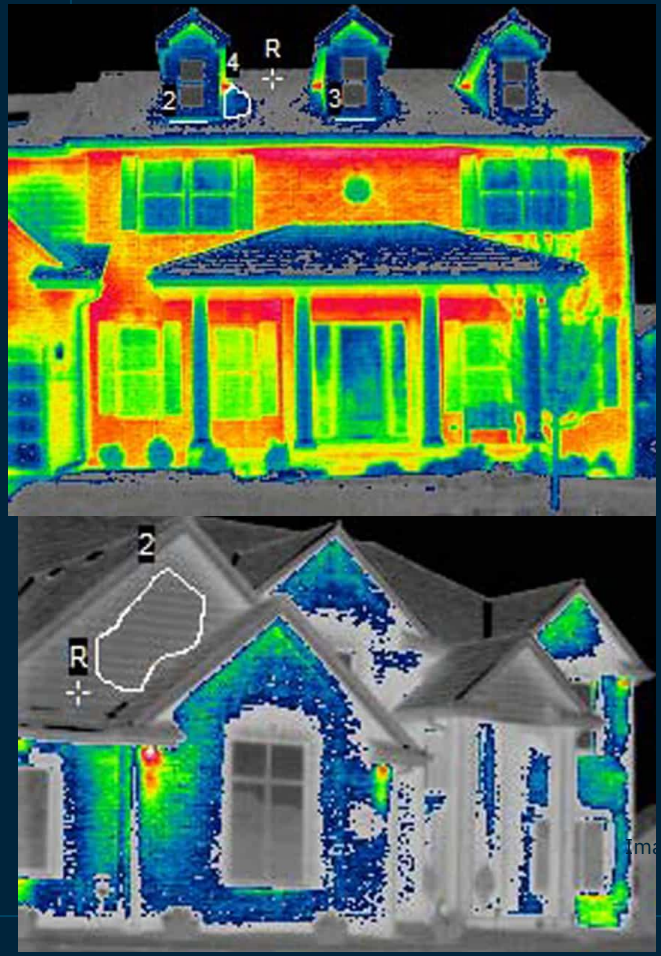
Built with ICF, this home withstood the hurricane's powerful winds and storm surges, sustaining only minor damage. **The Sand Palace** became a hub for relief efforts, demonstrating the strength of ICF construction in extreme conditions and is a compelling example of the peace of mind ICF can offer.

ICF BENEFITS

Efficiency Infrared

Research results commissioned by the ICF Manufacturers Association show up to a 58% energy savings over timber framed homes.

The images on the right show thermal imaging of two homes, one built using timber framing and the other with polystyrene (styrofoam) ICFs. The ICF home image shows only two hot spots and these are the bulbs of outdoor lights. **Monolith blocks are 45%+ more efficient** than the ICF used for this home!



The Problem with Traditional ICF



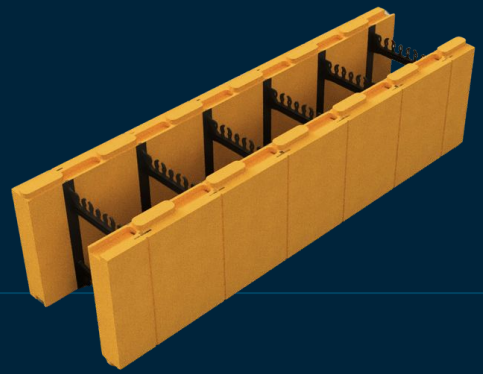
Styrofoam is great packing material, but not always the best construction material.

Traditional ICF uses styrofoam which is an open-cell membrane, meaning it can be penetrated and has the potential to break apart. Cracks during construction can cause concrete blowouts, while breakdown after construction can allow moisture to enter and weaken the structure, or invite various pests to create a home. And critically, styrofoam is highly flammable.

- Cracks & Blowouts
- Moisture Penetration
- Pests & Nests
- Flammable

Our Solution: Polyurethane

Using closed-cell polyurethane instead of open-cell polystyrene, **Monolith ICF** is stronger, safer, and more efficient, allowing you to **build better**.



Monolith™

THE BETTER ICF

- Superior Strength & Durability
- Increased Thermal & Structural Efficiency
- Fire Resistance
- Superior Moisture & Pest Resistance

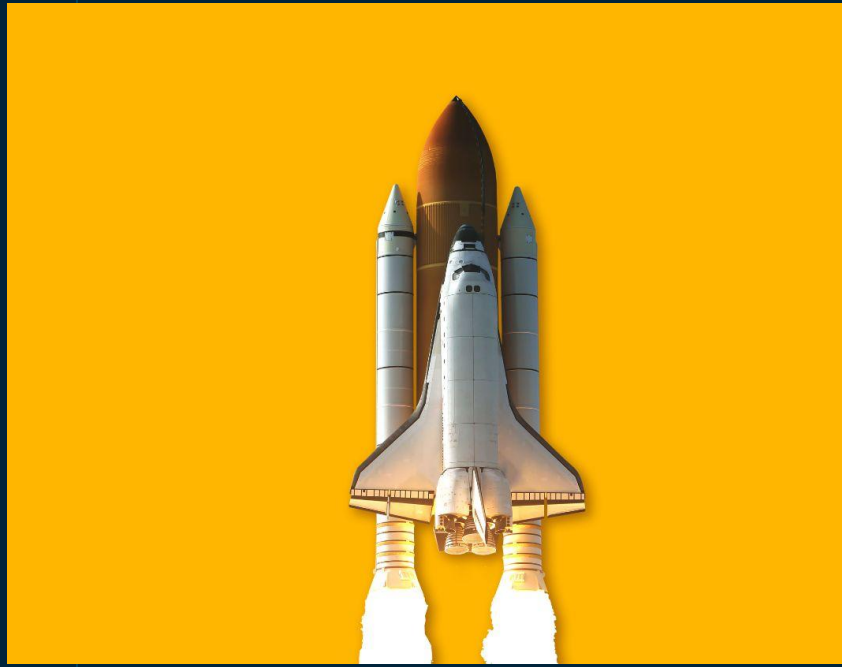
THE MONOLITH DIFFERENCE

An Extreme Material

We looked to the most challenging environments to solve our problems with traditional ICF, and found Polyurethane.

Polyurethane plays a crucial role in rocket construction, forming a seamless, self-adhering layer that provides thermal protection and structural support.

This helps maintain the integrity of the fuel tanks and other critical components under extreme conditions, such as the thermal loads during re-entry and the mechanical stresses during launch.



THE MONOLITH DIFFERENCE

Monolith ICF is nearly 2x stronger than traditional ICF, offering far superior strength & durability.

1.8x Compressive Strength

Withstands greater weight during the concrete pour

1.2x Flexural Strength

Resists flexing and prevents blowouts, ensuring stability during and after construction

No Additional Bracing Required

Upgraded strength reduces need for complex bracing systems

Unique 7-in-1 System

More streamlined construction **for all** climates and geographies

THE MONOLITH DIFFERENCE

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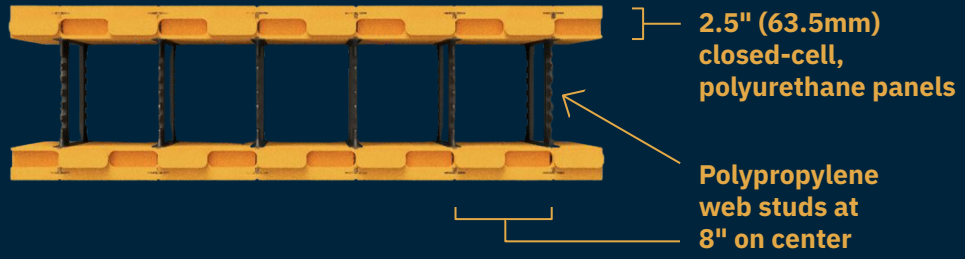

7-in-1 System Provides:

- Structure
- Insulation
- Vapor Barrier
- Fire Barrier
- Air Barrier
- Sound Barrier
- Siding & Sheetrock Ready

THE MONOLITH DIFFERENCE

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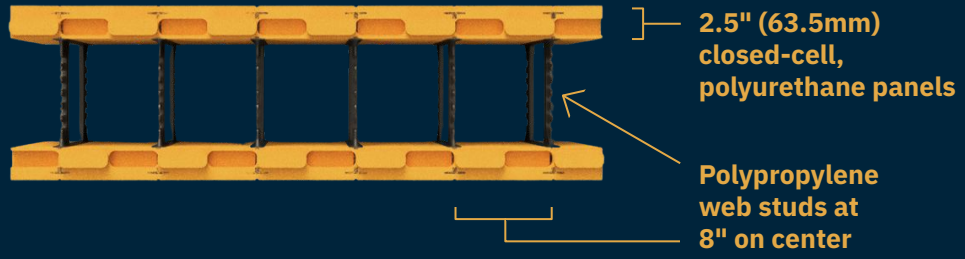


PLUS

- R-Value of 38
- STC Rating of 55+
- FRR 3+ Hours

Download the full specification sheet and installation manual to see how **Monolith ICF** can benefit your next project.

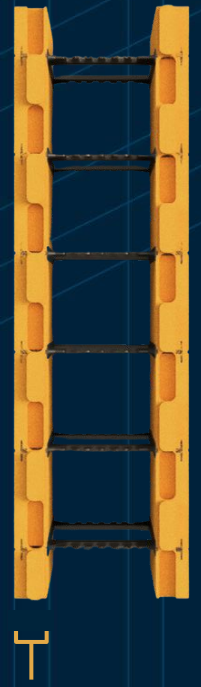
SPEC SHEET & INSTALLATION MANUAL

Monolith™

Outstanding Thermal Performance:

R-Value of 65+

- Achieves an exceptional **R-value of 65+**, delivering industry-leading insulation performance in a single integrated system.
- This result is achieved through the synergy of **R-value and U-value technologies**:
  - **Polyurethane Panels**: Our advanced polyurethane mixture provides **R-7.6 per inch**, with 2.5 inches on each side, totaling **R-38**.
  - **Concrete Core**: The concrete layer contributes a unique **U-value**, which, when combined with the Monolith Panels, elevates overall thermal performance to **R-65+**.



2.5" (63.5mm)
closed-cell, polyurethane panels

THE MONOLITH DIFFERENCE

Strength, Speed, and Simplicity

Stronger Block

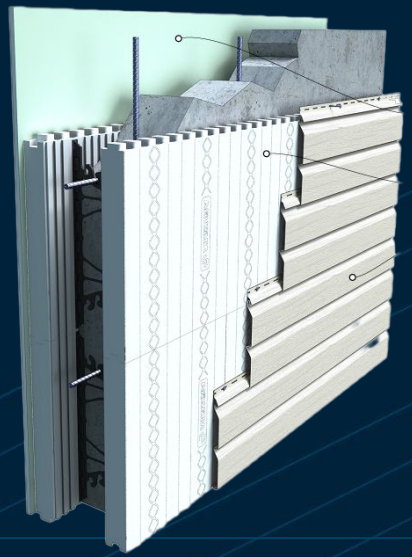
Polyurethane is significantly stronger than styrofoam, which leads to less risk of concrete blowouts and the ability to use less bracing and complete higher concrete lifts/pours. In addition, lower amounts of less skilled labor are required. All of this allows you to complete projects faster and at lower risk.

True Closed-Cell Foam

Built on polyurethane foam, the Monolith ICF 7-in-1 system removes the need for vapor/moisture/fire barriers, resulting in a simple, more efficient build.

Monolith™
ICF Construction

R-65+ ICF/Concrete wall



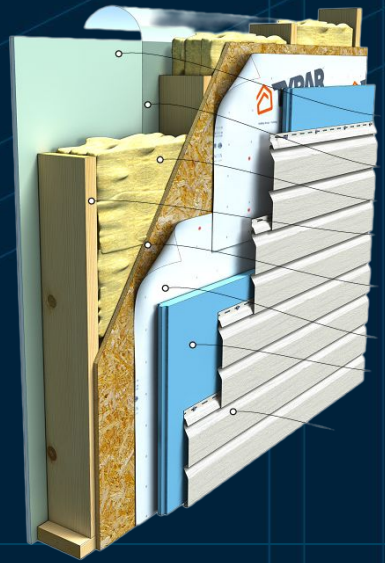
1 /2 standard gypsum

R-38 Monolith wall with 6” concrete core for total of **R-65+** performance

4.5 in. vinyl siding.

Conventional 2x6 Construction

R-20 nominal + R5 wood framed wall



1 /2 in. standard weight gypsum drywall. Joints taped and mudded

6 mil. Poly vapor barrier

R-20 fiberglass batt insulation

2x6 #2 grade wood stud

7/16 in. oriented strand board sheathing

Synthetic sheet air barrier

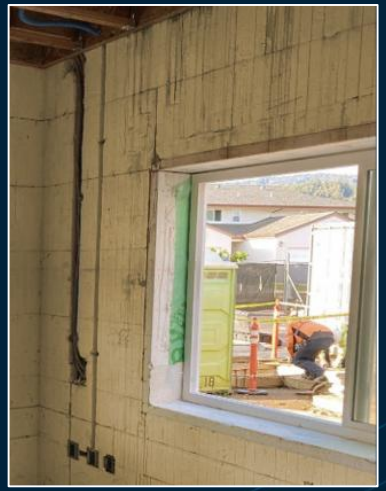
R-5 exterior insulation, fastened through air barrier to sheathing

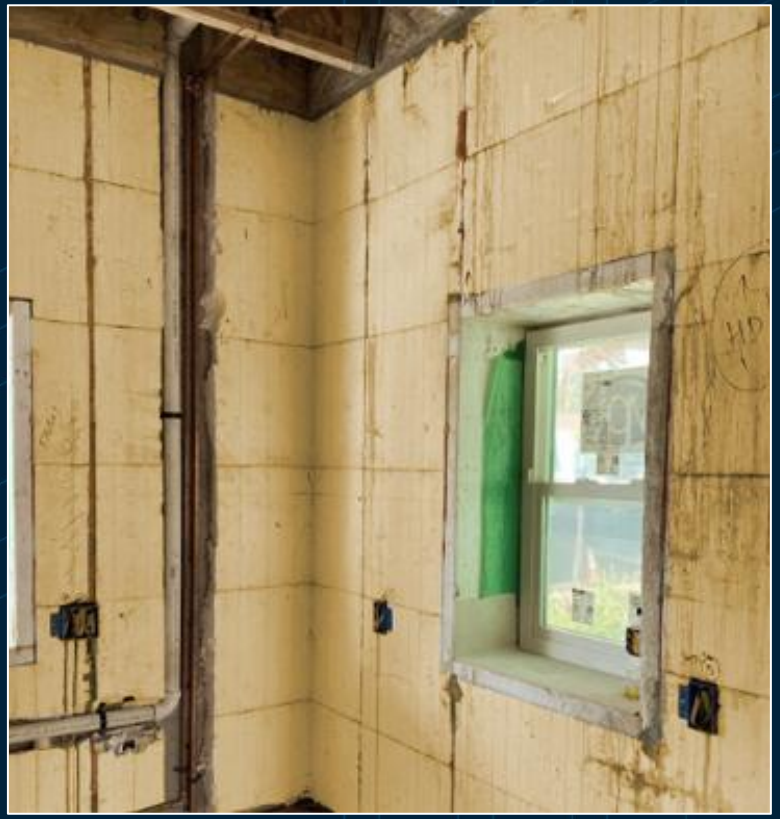
4.5 in. vinyl

Window Bucking & Floor Ledgers

- Can be efficiently pre-built
- Strengthens second-story
- Easy transition from basement to 1st floor

Plumbing & Electrical





- Simple install
- Can be started within days after initial wall pour
- Can anchor 2.5” electric boxes to concrete

Relative Performance Comparisons

Professionals

FACTORS	Traditional Construction	Styrofoam ICF	GOLD STANDARD Monolith ICF
Speed/Ease of Construction	Baseline	Better	**Best**
Efficiency (R-Value)	2.2 - 3.8 (per inch)	3.8 - 5.0 (per inch)	**7.4 - 8.0 (per inch)**
Fire Resistance	Poor	Better*	**Excellent**
Moisture/Pest Resistance	Baseline	Better	**Best**
Sustainability	Fair	Higher	**Very High**
Design/Build Flexibility	Baseline	Superior	**Best**

Monolith ICF is designed to solve the real world problems and challenges facing the building industry as a whole, both during the build process and after construction. Each dimension may have multiple contributing factors — speak to a representative to better understand the Monolith difference.