

# Welcome

**IntegraSpec<sup>®</sup>**  
.COM

*The User Friendly ICF*

**Insulating Concrete Forms**

— By Phil-Insul Corporation —



# The Most Technically Advanced ICF

- ✓ Unique “*Independent Panel*” Design
  - Bi-Directional Panels (*Flippable and Reversible*)
  - No Top – No Bottom
  - No Right – No Left
  - Exclusive Interlocking Web
  - HIPs (**H**igh **I**mpact **P**lastic) Insert
  - Patent Protected***
- } *Eliminates Waste and  
Lowers Installed Cost*



# User Friendly Product Line



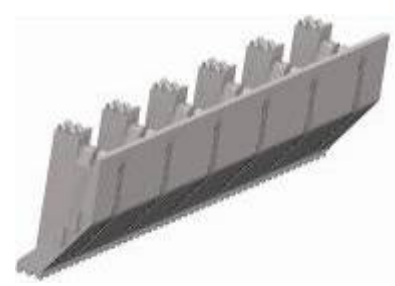
Standard Panel



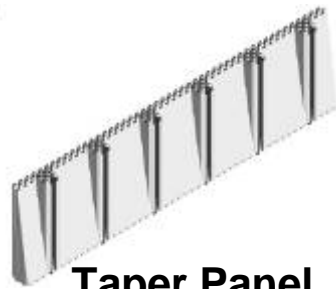
90° Corner Sets



45° Corner Set



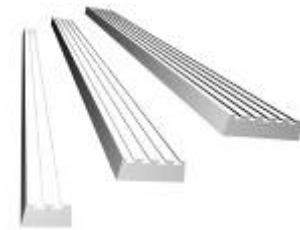
Brickledge



Taper Panel



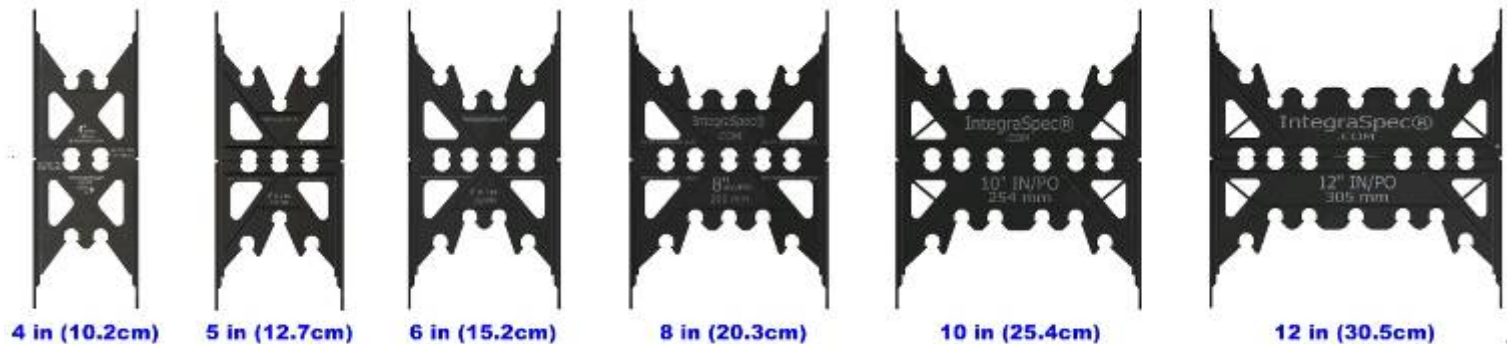
IntegraBucks



IntegraHeaders



# User Friendly Product Line



Multiple Web Spacer Sizes

4", 5", 6", 8", 10", 12"



Unique "H" Clip  
allows wider concrete  
widths using same panels.



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# Lowest Installed Cost ICF

## ✓ Unique “*Independent Panel*” Design

- Builds the wall not a “block”;  
Does not require a starting rail on the footing;  
Perfectly sized to maximize standard ceiling heights  
such as 8’, 9’, 10’, etc by simply adding another course;  
Can be accurately cut on a table saw;  
1” cut lines;  
Ships flat to reduce shipping costs.



# Lowest Installed Cost ICF

- ✓ **Bi-Directional Panels** (*Flippable and Reversible*)
  - Less handling on site trying to determine top, bottom, rights, or lefts;  
Less waste on site (1% to 3.5% as opposed to 10% to 20% experienced with other ICFs).



# Lowest Installed Cost ICF

## ✓ Patented Interlocking Web

- Eliminates “form lift” when pouring the walls;  
Does not rely on the EPS foam to lock wall system;  
Therefore requires less time to straighten walls and  
gives the contractor the advantage of having professional  
walls at the end the concrete placement;  
Requires less bracing;  
Eliminates glue, tape, foam, hooks, ties, and wiring.



# Lowest Installed Cost ICF

## ✓ HIPs (High Impact Plastic) Insert

- Inserts fuse with EPS (expanded polystyrene ) during manufacturing to create stronger panels, thus controlling form failure and blow outs!

Full height inserts eliminate “Form Compression” during concrete placement, stopping the wall from “teetering” and assists in wall alignment;

Installation does not require additional space above openings to allow for settling/form compaction;

Wall height is accurately determined before concrete placement.



# Interfaces Easily with All Floor Systems

## ✓ Steel and Concrete Composite Floors



- Interior panels are easily and accurately cut to specified floor height on table saw;  
“Independent Panel” provides exterior form work around full perimeter when ready to pour floor, eliminating bulkheading and tie wire.



# Interfaces Easily With All Floor Systems

## ✓ Steel Pan Deck and Concrete Floors



- Interior panels are easily and accurately cut to pan deck height on table saw, then notched for joists; “Independent Panel” provides exterior form work around full perimeter when ready to pour floor, eliminating bulkheading.



# Interfaces Easily With All Floor Systems

## ✓ Hollow Core Concrete Slabs



- Interior panels are easily and accurately cut to bottom of slab height on table saw, then offset over top of slab; Rebar protrudes from lower wall, inserted prior to, or during concrete placement to negate cold joint for next pour.



# Interfaces Easily With All Floor Systems

## ✓ Pre-Engineered Wood Joists



- Rim joist connectors are placed in the wall prior to concrete placement such as flange bolts, strong ties, etc. Wood joists are attached to rim using hangers or top chord bearing flooring systems.



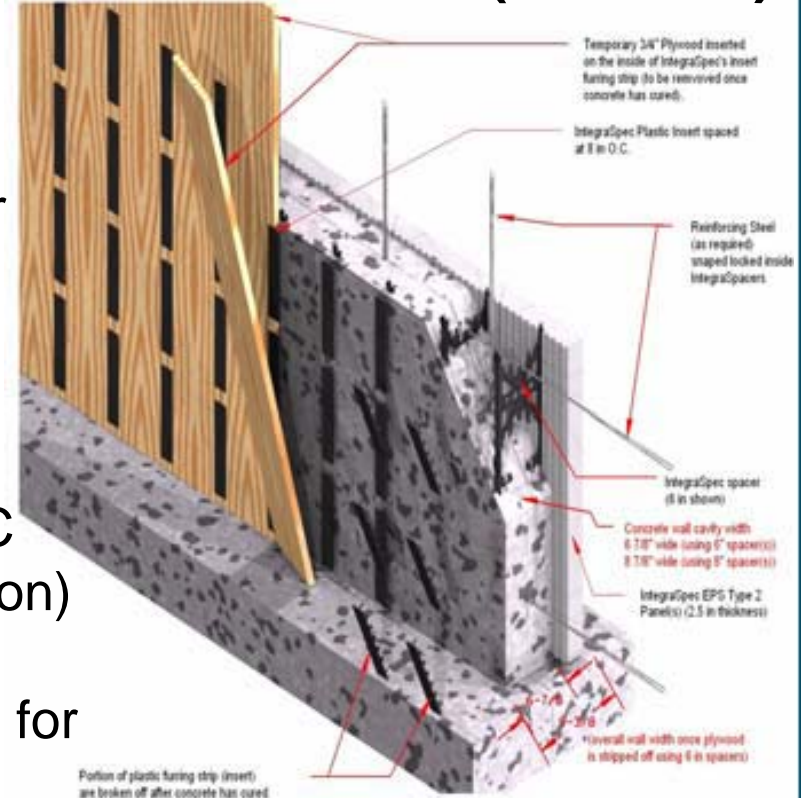
# The Only ICF that offers Exposed Concrete Face (ECF)

## ✓ Commercial Applications

- Only **IntegraSpec®** can offer the exclusive single sided ICF wall for commercial applications such as elevator shafts, parking garages, etc.

ECF still provides fast construction, great insulation and superior STC (Sound Transmission Classification) ratings;

Non-combustible fire ratings for the ECF.



For details, visit [http://www.integraspec.com/Installation\\_manual.pdf](http://www.integraspec.com/Installation_manual.pdf), section 21.

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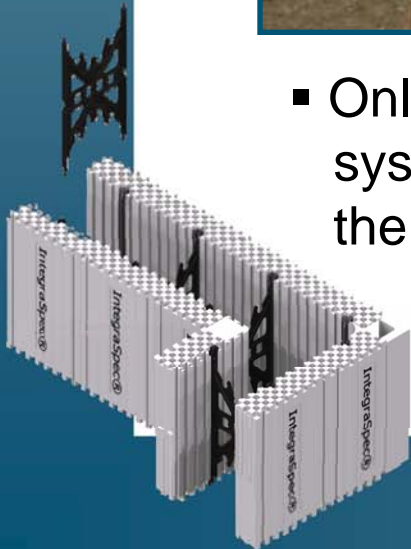


# ICF Footings

## ✓ Exclusive Applications



- Only **IntegraSpec®** can offer the exclusive footing system by incorporating the unique “H” Clip to widen the concrete thickness for insulated footings (left) or the base of stem/frost walls (right).



# Transportation Savings

## ✓ Featured Benefit



- **IntegraSpec**<sup>®</sup> material is shipped, handled, and warehoused flat in bundles and boxes, saving freight costs and reducing stocking requirements;

Approximately 7200 ft<sup>2</sup> wall space can be shipped in a 53' transport (right), 5500 ft<sup>2</sup> in a 40' container and sufficient material for a 1200 ft<sup>2</sup> foundation in a 16' trailer and truck (left).



# Residential Benefits

IntegraEfficient  
IntegraFast  
IntegraHealthy  
IntegraSafe  
IntegraQuiet  
IntegraFlexible  
IntegraSavings  
IntegraGreen



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# Residential Benefits

## ✓ IntegraEfficient

The insulated thermal mass and air infiltration control of **IntegraSpec®** ICF construction allows the walls to perform similarly to a R40 – R50 stick framed home without air leaks. Saves 30% to 70% of heating, cooling, and dehumidification costs.



### Badgers Retreat

Cement Association's *Outstanding Energy Efficiency Award*.

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# Residential Benefits

## ✓ IntegraFast

**ICF Construction is a 5 step process all in 1.**

- Steel reinforced concrete replaces block and stick frame;
- Superior insulated panels replaces batt insulation;
- IntegraSpec® ICF wallsystem replaces conventional air and vapour barriers;
- HIPs plastic furring strips replaces wood studs.



### Byrne Point Residence

6300 ft<sup>2</sup> home built within 4½ months.

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# Residential Benefits

## ✓ IntegraHealthy

ICF homes promote healthy indoor air quality. **IntegraSpec®** walls prohibit mould and mildew growth and provide better living conditions for an increasingly allergenic and asthmatic inflicted nation.

ICF walls do not off-gas, where conventional walls (such as poured concrete) leach form oil and OSB off-gas through glues and resin.



### Brealey Residence

R-2000 EnerQuality Corp –  
*Environmental Excellence Award.*

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# Residential Benefits

## ✓ IntegraSafe

ICF homes offer security against tornados, hurricanes, fire, and seismic areas. The reinforced concrete walls provide safety for your family against flying debris and structural failure.



McGahuey Residence, Iowa

Built to withstand tornado prone area.



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# Residential Benefits

## ✓ IntegraQuiet

**IntegraSpec's best kept secret. An ICF home creates a quiet sanctuary that blocks out unwanted external noise such as the neighbour's lawn mower, high winds, and busy traffic. It also provides sound absorption of the interior and can be great for music or theatre rooms.**



### Conservatory Pond Seniors' Residence

**Award winning project built near an airport and high traffic area.**



# Residential Benefits

## ✓ IntegraFlexible

The unique, patented design offers concrete walls from 4" to almost any thickness. The independent panels allow simple transitioning for unlimited contours, thicknesses and finishes. Big or small, complex or straightforward, any design can be built with **IntegraSpec®**.



### Teron Residence

Design complexities with radius', angles, and tall walls.

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# Residential Benefits

## ✓ IntegraSavings

**IntegraSpec®** can save you money when comparing to other ICF systems, since we have less waste and require less time and installation costs. **IntegraSpec®** can also save money when compared to conventional homes with lower insurance, lower energy bills, and lower construction costs during winter seasons.



### Tifton Hotel

Built within schedule and on budget, saving time and costs over sister hotels which commenced construction earlier.

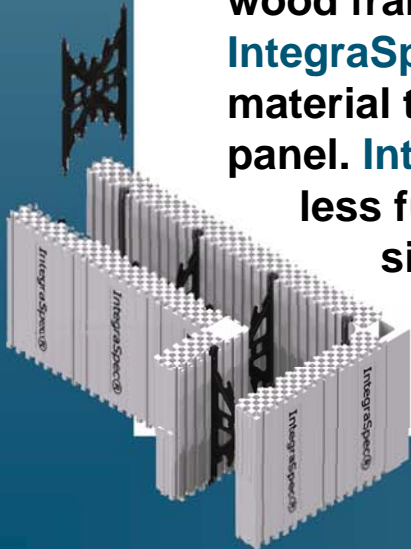
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# Residential Benefits

## ✓ IntegraGreen

**IntegraSpec® ICF** is an environmentally friendly product that produces less stress on your surroundings. Use of **IntegraSpec® ICF** means less trees cut down to produce wood framing and sheathing. **IntegraSpec®** uses recycled material to form part of every panel. **IntegraSpec®** requires less fuel to ship product since more material can be shipped in each container/transport.



Ottawa Residence

Advanced features with sustainable construction and “Green” technology.

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# Builders' Focus

NAHA consumer research tells us that the decision making for a new home is motivated by the following drivers:

**Builder Confidence** (Reputation, Knowledge Base, Reliability);

**Quality** (Safe, Secure, Cost Efficient);

**Design** (Uniqueness, Flexibility);

**Location** (Rural / Urban);

**Lifestyle** (Comfortable, Quiet, Private);

**Environmental** (Energy Efficient, Healthy Indoor Air Quality).

***IntegraSpec® is designed to meet all of these needs.***

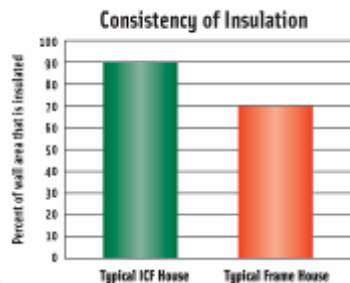


## Comfort and Quiet with Concrete Homes

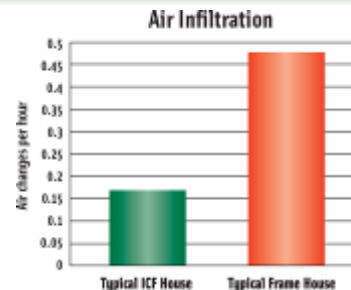
Homes built with insulated concrete walls effectively buffer a house's interior from the outdoors. The combination of a massive material (concrete) with a light one (foam) sharply cuts fluctuations in temperature, air infiltration, and noise. Insulated concrete walls keep the inside of a house more comfortable and quiet than ordinary wood frame walls. Concrete walls include masonry, insulating concrete forms (ICFs), poured concrete/removable forms, precast, and autoclaved aerated concrete (AAC).

Where does the greater comfort come from?

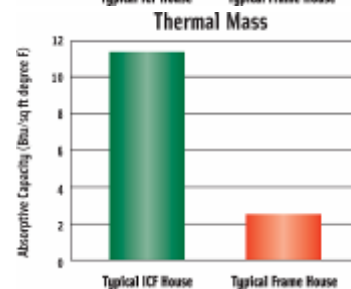
ICF walls increase comfort in three ways:



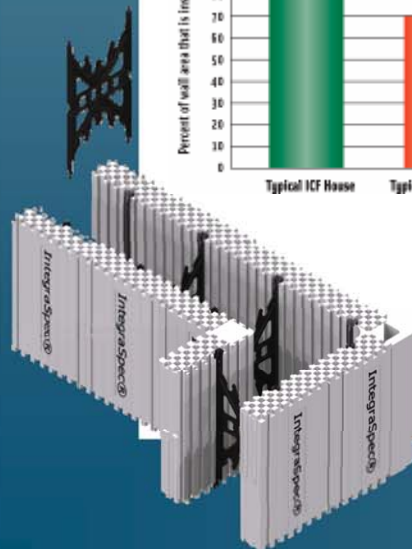
A continuous layer of foam insulation along a concrete wall helps keep the temperature the same everywhere along the wall. It virtually eliminates the "cold spots" that can occur in frame walls along the studs, in corners, or at gaps in the insulation.



The continuous layer of concrete within the walls makes them exceptionally airtight. Air flow through solid concrete is negligible, so drafts are cut sharply. In tests, houses built with concrete walls had up to one-third to one-half as much air infiltration as the typical wood frame house.

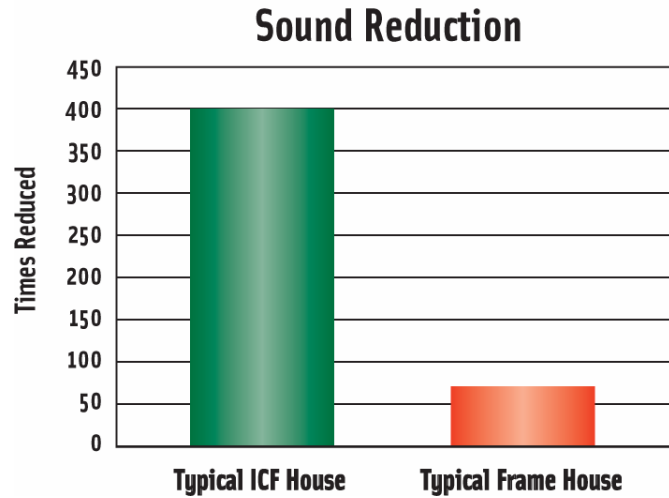


The heavy concrete gives it the temperature-moderating property of "thermal mass." This evens out swings in temperature over time. Because of thermal mass, the house does not tend to overheat or get suddenly chilly as the outdoor temperatures change or the furnace or air conditioner cycles on and off.



# What about noise?

Massive materials like concrete tend to reflect noise:

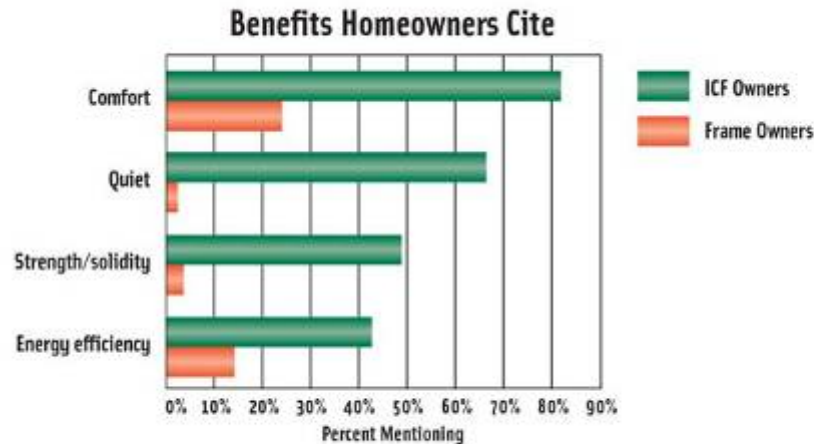


Compared to a typical wood frame wall, only about one-quarter to one-eighth as much sound penetrates a concrete wall. Acoustics experts would describe loud speech on the opposite side of a frame wall as “audible, but not intelligible.” On the opposite side of a concrete wall, a listener would “strain to hear” loud speech. Through some concrete walls loud speech would be “inaudible.”



But will I really notice the difference?

Homeowners with insulated concrete walls appreciate these benefits more than they ever imagined.



In a 1997 survey, interviewers asked owners of 74 new ICF houses and 73 new frame houses what they liked about them. Over 80% of the ICF owners mentioned the great comfort, compared with 22% of the frame owners. Typical comments were:

*"It's the most comfortable house I've ever lived in."*

*"I didn't know what I was missing until we were in it for a while."*

Over 60% of ICF homeowners mentioned the quietness of their houses, versus only 2% of the frame homeowners. The ICF owners told two common stories over and over again:

*"I looked out the window and saw the traffic on the road, but I couldn't hear it."*

*"While talking with my neighbor one morning, he asked if the thunderstorm the night before woke me up, too. But until that moment I never even realized we'd had one."*

What's the bottom line?

When planning a new home, consider the greater well-being that can come from living with more even temperatures, sharply reduced drafts, and noticeably greater quiet—all benefits of insulated concrete walls. Effectively sheltering the interior environment from the harshness of the outdoors, insulated concrete walls provide a quiet, comfortable home year round.



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*Thank you*



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