COONS CONSTRUCTION INC

Building the Future, Restoring the Past

SCIP PANEL CONSTRUCTION

Comprehensive Client FAQ Guide

All SCIP Panels supplied by TIPS — Total Integrated Panel System

Innovative Structural Solutions | Morgan, Utah | ICC/IAPMO Certified | American-Made

Colorado Springs, CO | coons-construction.com | A-1 Licensed General Contractor

About This Guide

Coons Construction Inc is one of the very few Colorado Springs contractors building with Structural Concrete Insulated Panels (SCIP). Every SCIP panel on our projects is supplied by TIPS — the Total Integrated Panel System manufactured by Innovative Structural Solutions in Morgan, Utah. TIPS is American-made, ICC/IAPMO certified, and consistently recognized as the strongest and most versatile SCIP product on the North American market.

This guide answers every question we hear from clients exploring SCIP construction, plus additional topics we have identified from builder forums, manufacturer technical documentation, and our own project experience. Answers are cross-referenced against TIPS engineering documentation, ICC Evaluation Reports, RSG-3D, Fortified Structural Solutions (Concrewall), GCT/Carmelo, and independent academic research from PCI and Utah State University.

Where answers involve ranges or design variables, we say so plainly. Our job is to give you accurate information, not to oversell.

1. What Is SCIP Construction — and What Is the TIPS Panel?

Q: What exactly is a SCIP panel?

A Structural Concrete Insulated Panel (SCIP) is a three-layer sandwich: an expanded polystyrene (EPS) foam core sits between two layers of galvanized welded-wire mesh (WWR). Diagonal steel truss wires punch through the foam and weld to both mesh layers, forming a rigid three-dimensional truss. Once panels are erected on site, shotcrete or structural mortar is applied to both faces. The result is a monolithic, load-bearing concrete shell with insulation built in — framing, insulation, and sheathing in a single step.

Q: What makes TIPS different from other SCIP products?

TIPS uses a proprietary pyramidal truss-wire geometry — not a standard diagonal layout — which was validated at Utah State University's SMASH lab and by the Tilt-up Concrete Association at the University of Nebraska. IAPMO has certified TIPS as fully composite, meaning it maintains 100% of the structural strength of a solid concrete panel despite replacing four inches of concrete with EPS insulation.

> **TIPS Panel:** TIPS reduces concrete use by up to 50% and rebar by up to 90% vs. conventional solid concrete construction, while cutting finished wall weight by roughly 50%. That weight reduction can also allow smaller footing designs.

Key TIPS credentials:

- American-made in Morgan, Utah — no import delays, no tariff exposure.
- ICC certified through IAPMO for structural construction in all seismic zones A–F, with no limitations.
- Approved for tilt-up, precast, and stand-and-shoot (field-erected) construction.
- Used in major commercial distribution warehouses and residential construction.
- Window and door openings are prefabricated — no field cutting required.
- EPS insulation is fully pre-integrated; no separate insulation step needed.
- Standard panel: 4" EPS core, 11-gauge galvanized WWR, 9-gauge diagonal truss wire, minimum 3,500 psi shotcrete shells.

Q: How does SCIP/TIPS compare to conventional framing options?

Wood stick frame: Standard in 92% of US residential construction. Separate steps for framing, insulation, and sheathing. Susceptible to fire, termites, moisture, and long-term structural degradation. Framing costs rose 20.5% of total construction cost in 2022 (NAHB).

SIP (Structural Insulated Panel): EPS core laminated between OSB sheets. No concrete. Good insulation but less thermal mass, fire resistance, and structural capacity than SCIP.

ICF (Insulated Concrete Form): Foam blocks stacked and filled with poured concrete. Labor-intensive, uses 50–80 cubic yards of concrete vs. 25–40 for SCIP/TIPS, requires significantly more manpower.

SCIP/TIPS: Panels arrive pre-cut and pre-fabricated. One or two workers position each panel. Framing and insulation are done simultaneously. TIPS uses up to 50% less concrete than ICF. Shotcrete finishes the structural shell.

2. Structural Applications

Q: Can SCIP panels be used for roofs as well as walls?

Yes. Roof construction is a documented, code-evaluated application. ICC Evaluation Report ESR-5623 explicitly approves SCIP panels for walls, floors, and roofs. TIPS supports all three applications. Roof panels use the same three-layer system as wall panels; engineering is required to account for span, slope, snow load, and local wind conditions.

> **Note:** For Colorado Springs projects, Coons Construction coordinates the structural engineering for roof panel design as part of our design-build service — including local wind, snow, and seismic considerations.

Q: Can SCIP be used for floors between levels in a multi-story home?

Yes. SCIP floor panels function as inter-story slabs. A standard TIPS panel with 3,500 psi shotcrete on both faces achieves full structural slab performance. Tested load data shows an 8-foot SCIP wall panel withstanding over 60,300 lbs of structural load — far exceeding what wood or metal framing can provide. Carmelo/GCT compression tests have demonstrated strengths exceeding 20,000 lbs per linear foot.

For floor slab applications, a structural engineer specifies panel thickness, concrete coverage, and any supplemental reinforcement based on span and live load requirements.

Q: Are SCIP panels used for interior walls as well as exterior?

Yes — SCIP can be used for both load-bearing and non-load-bearing interior walls. Interior SCIP walls provide substantially better sound separation and fire resistance than standard drywall partitions. However, many projects use SCIP for the exterior structural envelope and conventional framing systems (metal stud + drywall) for interior partitions. This is a design and budget decision we work through with each client.

The primary tradeoff: interior SCIP walls offer outstanding acoustics and fire ratings but are less flexible to relocate after construction. Metal stud partitions are easier to move or modify if the floor plan changes in the future.

3. Plumbing, HVAC & Electrical

Q: How are plumbing, HVAC, and electrical run through SCIP panels?

This is one of the most practical questions clients ask, and the full answer depends on the building type. SCIP construction uses smart utility routing that minimizes the need to penetrate the structural concrete shell.

Residential Construction — Three Primary Routing Paths

Crawlspace (traditional residential): The preferred routing method for most residential plumbing and mechanical systems. In homes built on a crawlspace foundation, all supply plumbing, drain lines, and HVAC distribution runs beneath the floor — completely independent of the SCIP walls. Nothing penetrates the structural shell. Homeowners get easy access to utilities for maintenance, inspection, or future modification.

In-panel chases (pre-shotcrete): Before shotcrete is applied, a SCIP contractor uses a hot-air gun or torch to cut channels directly into the EPS foam core. Electrical conduit, outlet boxes, switch boxes, and smaller plumbing lines are set into these channels. Once utilities are roughed-in and inspected, shotcrete locks everything in place. This is the standard method for wall outlets, switches, and lighting circuits in all building types.

Dedicated utility chases: Where utilities must be routed vertically or horizontally within the building envelope — such as in slab-on-grade construction with no crawlspace, or where supply runs cross multiple rooms — a framed utility chase is built along an interior wall. The chase is typically framed with metal studs, drywalled, and provides a concealed, accessible pathway for plumbing, electrical, or HVAC runs.

Commercial Construction — Above-Grid Ceiling Method

In commercial SCIP buildings, the ceiling plenum (the space above a suspended or drop ceiling grid) serves as the primary distribution zone for all mechanical, electrical, and plumbing systems. Ductwork, conduit, and piping run horizontally through the plenum and drop down through the walls at service points. This is standard commercial construction practice and works seamlessly with SCIP panel walls.

> **TIPS Panel:** TIPS panels are among the most widely used SCIP products in large commercial buildings including major distribution warehouses. The above-ceiling utility routing method is proven at scale.

HVAC Sizing Advantage

Because SCIP's thermal envelope is dramatically tighter than wood-frame construction, HVAC equipment can typically be downsized by 30–33% compared to an equivalent stick-frame building. Energy Recovery Ventilators (ERVs) or Heat Recovery Ventilators (HRVs) are the preferred mechanical ventilation solution to maintain indoor air quality in a near-airtight SCIP envelope.

> **Note:** Best practice: electrical channel routing into the EPS foam should be performed by the SCIP contractor before electricians and plumbers begin their rough-in. This protects panel geometry and ensures proper coordination between trades.

Q: What if utilities need to be added or rerouted after construction?

Utility routing in the crawlspace (residential) or ceiling plenum (commercial) can be modified like any conventional construction — no concrete is touched.

For in-wall utilities already encased in shotcrete, modifications require cutting through the concrete layer, re-routing in the foam, and patching. This is more involved than drywall work but entirely achievable. The most practical approach is planning ahead — Coons Construction discusses future utility needs during design so that access sleeves, junction boxes, or chase locations can be built in from the start.

4. Remodeling & Renovations

Q: Is it difficult to remodel a SCIP home?

Straightforward answer: SCIP requires more planning than wood-frame construction, but it is not prohibitively difficult. The challenges are specific to the concrete shell — not the foam core, which remains carve-able at any time.

Cosmetic work is no different from any home: paint, flooring, fixtures, cabinets, and tile install normally. Changes requiring new in-wall utilities in exterior SCIP walls require cutting through the concrete layer, routing through foam, and patching. Changes in the crawlspace or ceiling plenum are essentially the same as conventional construction.

Q: If a SCIP wall needs to be opened for new utilities, what do the patches look like?

When done by a skilled mason or SCIP contractor, patches are effectively invisible after finishing and painting. The process:

1. Cut the concrete surface with a concrete saw or angle grinder.
2. Route channels in the foam core using a hot knife or rotary tool.
3. Install conduit, pipe, or junction box in the channel.
4. Apply structural mortar over new wire mesh to restore the concrete surface.
5. Finish with the same texture as the surrounding wall — smooth, knockdown, skip trowel, or other.
6. Prime and paint to match.

The key to an invisible patch is matching the existing surface texture. That is a craft skill — a good finisher can match virtually any texture. It is not structurally different from patching any concrete or stucco surface.

> **Note:** The simplest way to future-proof a SCIP home is to plan during construction. Adding conduit sleeves, access panels, or chase framing costs very little during the build and eliminates concrete-cutting later.

5. Interior Wall Finishes

Q: What do interior SCIP wall finishes look like compared to drywall?

The short answer: you cannot tell the difference — unless you choose to make it visible. Interior SCIP walls finished with a skim coat and paint look exactly like a conventionally drywalled room. The finish options available on SCIP walls are identical to, or better than, those available on drywall.

Here is how the different finish paths work:

Option 1 — Direct Concrete Skim Coat (Most Common for SCIP)

After shotcrete is applied and cured, the surface is finished with a thin skim coat of fine mortar, joint compound, or finish plaster — typically 1/8" to 3/16" thick. This produces a smooth, hard, paint-ready surface that is comparable to a Level 5 drywall finish. It is more durable than drywall and handles impact, moisture, and wear better.

From this base, any texture can be applied:

- **Smooth / Level 5:** A skim coat sanded to a flat, uniform surface. Indistinguishable from high-end drywall when painted.
- **Knockdown:** Joint compound is sprayed or troweled on, allowed to partially set, then knocked flat — producing a subtle, multi-tone texture. Very common in Colorado homes and an excellent choice for SCIP.
- **Skip trowel:** A curved trowel is dragged across wet compound in an arcing, skipping motion. Produces peaks and valleys similar to Southwestern or Mediterranean stucco. Sand can be added for a grittier appearance.
- **Spanish / French lace:** A variation of knockdown with a swirl motion, creating a lace-like pattern. Popular in mission-style and rustic interiors.
- **Natural concrete:** The shotcrete surface is ground and sealed for a modern industrial aesthetic. Exposed aggregate or polished concrete effects are achievable.

Option 2 — Drywall over Furring Strips or Metal Hat Channel

For clients who prefer a traditional drywall finish or who want a utility cavity behind the interior face, standard drywall can be installed over the SCIP concrete surface. The process:

7. Install metal furring strips (hat channel) or 1x2/1x3 metal or wood furring horizontally at 16" on center, fastened to the concrete surface with masonry anchors or Tapcon screws.
8. The furring strips create a level plane, correct minor surface irregularities, and provide a cavity for insulation, conduit, or cabling behind the drywall.
9. Hang 1/2" or 5/8" drywall on the furring strips using standard drywall screws. Joints are taped, mudded, and finished to any level (smooth through knockdown).
10. Install corner bead, baseboard, and trim as normal.

This method results in a wall that looks and functions exactly like a conventional drywall room. The slight reduction in interior floor space (typically 1.5" per wall) is the only tradeoff.

> **Note:** Metal hat channel is preferred over wood furring in SCIP construction for moisture resistance, dimensional stability, and compatibility with the non-combustible character of the SCIP system. Metal does not warp, rot, or attract insects.

Option 3 — Drywall Adhered Directly to Shotcrete

On interior SCIP walls where the concrete surface is smooth and level, drywall can be bonded directly to the concrete using construction adhesive (such as Liquid Nails Heavy Duty or a panel adhesive rated for masonry). This is the thinnest-profile finish option and works well on interior partition walls.

Limitations: adhesive bonding works only on flat, dry, sound concrete surfaces. It does not create a cavity for wiring. Not recommended for exterior-facing walls in humid climates where thermal bridging or condensation could be an issue — though SCIP's insulated core largely eliminates this concern.

Option 4 — Tile, Stone & Specialty Finishes

SCIP's solid concrete substrate is an excellent base for tile and natural stone. Unlike drywall-backed tile installations, there is no flex or give in the substrate — which is one of the leading causes of grout cracking over time. Ceramic, porcelain, travertine, slate, and brick veneer all adhere directly to the concrete surface.

Other specialty finishes — limewash, venetian plaster, textured paint systems, and decorative concrete overlays — are all compatible with SCIP's concrete substrate.

6. Interior Partition Walls — Metal Stud Framing

Q: Can conventional metal stud framing be used for interior walls in a SCIP home or building?

Absolutely — and this is a practical, cost-effective, and professionally standard approach. In most SCIP construction, the exterior envelope (walls, roof, and floor) is built with SCIP panels for maximum structural performance, energy efficiency, and disaster resilience. Interior partition walls are then framed with metal studs and finished with drywall in exactly the same way as commercial and high-performance residential construction.

This hybrid approach is used by SCIP builders nationwide and is fully consistent with how the system is designed to be used.

Q: What are the advantages of metal stud partitions over interior SCIP walls?

Metal stud framing for interior walls offers several practical benefits in a SCIP building:

- **Layout flexibility:** Metal stud partitions can be moved or reconfigured far more easily than SCIP walls. If you need to expand a bedroom, combine rooms, or repurpose a space, metal stud walls are standard demolition work.
- **Utility access:** The open cavity between metal studs is the natural home for electrical wiring, plumbing, low-voltage cabling, and HVAC distribution. Standard electrical boxes, wire runs, and outlet spacing all work exactly as in any conventional home.
- **Speed and cost:** Metal stud installation is fast, lightweight, and uses familiar trade skills. For non-structural interior walls, it is typically the most economical finish option.
- **No thermal concern:** Because interior partitions are not part of the building envelope, there is no insulation or thermal performance requirement — the SCIP exterior shell handles all of that.
- **Moisture resistance:** Galvanised metal studs do not rot, warp, or attract mold — making them the preferred choice in SCIP construction environments where performance matters.
- **Fire resistance:** Metal studs are non-combustible. Combined with Type X drywall (5/8"), metal stud partitions achieve 1-hour fire ratings — standard for commercial construction and available in residential when required.

Q: What are the practical specifications for metal stud interior partitions?

Standard interior metal stud partition (non-load-bearing):

- Stud gauge: 25-gauge for standard partitions up to 10 ft tall; 20-gauge for taller walls or where added rigidity is needed.
- Stud size: 3-5/8" web width is the most common for residential and light commercial partitions. 2-1/2" can be used in tight spaces where wall thickness is a concern.
- Spacing: 16" on center for drywall application; 24" on center is permitted for some lightweight partitions.
- Track: U-channel track fastened to concrete floor and ceiling with Tapcon screws or powder-actuated fasteners.
- Drywall: 1/2" for standard partitions; 5/8" Type X for fire-rated assemblies.

- Sound insulation: Batt insulation (fiberglass or mineral wool) installed in the stud cavity significantly improves STC ratings. Metal studs transmit sound more readily than mass concrete — insulation in the cavity is strongly recommended for bedroom and bathroom partitions.
- Plumbing chases: Walls housing supply or drain lines should use a 3-1/2" or wider stud to accommodate pipe diameter and maintain proper clearance.

> **Note:** Install a sill gasket or vapor barrier strip between the metal track and the concrete floor to prevent galvanic corrosion where metal contacts concrete. This is standard practice and inexpensive.

Q: Can metal stud partitions also carry utilities that would otherwise need to be chased into SCIP walls?

Yes — this is one of the most important planning benefits of using metal stud partitions in a SCIP home. Electrical circuits, plumbing supply lines, and low-voltage wiring (data, audio/video, security) can all be routed through the metal stud cavity and accessed at any time without touching the SCIP structural shell.

Strategic placement of interior partitions near plumbing fixtures — bathrooms, kitchens, laundry rooms — allows all plumbing supply lines to run inside metal stud walls rather than requiring penetrations into the SCIP concrete. This significantly simplifies both original construction and any future modifications.

Coons Construction coordinates utility routing strategy during the design phase to minimise penetrations into the SCIP envelope and maximise use of partition cavities and the crawlspace or ceiling plenum.

7. Hanging Pictures & Wall-Mounted Items

Q: Do concrete anchors have to be used for even simple things like hanging pictures?

Not always — but your hardware choices are different from drywall. Here is the practical breakdown:

- **Light items (under 20 lbs — most picture frames, small mirrors):** Hardwall plastic hooks with built-in nails can be tapped directly into the concrete surface with a hammer. No drilling, no anchors. Rated to 20–30 lbs. Works on SCIP's concrete surface exactly as on any concrete or masonry wall.
- **Medium items (20–50 lbs — larger art, shelf brackets):** Wall Dog screws or similar heat-treated masonry screws drive directly into concrete and hold up to 200 lbs on a concrete surface — actually stronger than the same screw in drywall (50 lb limit in drywall). No anchor required.
- **Heavy items (50–200+ lbs — large mirrors, shelving, wall-mounted TVs):** Tapcon concrete screws into a pre-drilled pilot hole, or sleeve/wedge anchors. These provide extremely secure attachment — often stronger than a stud in drywall.
- **Cabinets and wall units:** For kitchen cabinets or built-in units mounted to SCIP walls, a plywood mounting strip (nailer board) can be embedded in the foam core before shotcrete is applied. This creates a conventional nailing surface for cabinet installation and is the preferred approach when cabinet locations are known during construction. Alternatively, Tapcon screws with appropriate spacing work well in post-pour cabinet installation.

The practical reality: most clients adapt quickly. Once you know the right hardware — all of which is stocked at any hardware store — hanging items on SCIP walls is straightforward. And the walls never flex, bow, or develop hollow spots, so fasteners hold more reliably over time than in drywall.

8. Wi-Fi & Home Networks

Q: Does the concrete and wire mesh create interference with home Wi-Fi?

This is a legitimate question and the honest answer is: yes, there is additional signal attenuation compared to drywall — but it is fully manageable with standard modern networking equipment.

Concrete absorbs Wi-Fi radio waves and metal mesh reflects them. An 8-inch solid concrete wall can attenuate a signal by up to 55 dB. SCIP walls are thinner — roughly 3.5 to 5 inches total — so the effect is less, but the combination of concrete and steel mesh does reduce signal strength more than drywall or wood framing (which attenuate by only 3 dB).

The standard solution — which we recommend planning for during construction — is a mesh Wi-Fi system (Eero, Google Nest, Orbi, or similar). Mesh networks use multiple nodes distributed through the home, so signals never need to pass through multiple concrete walls to reach a device.

For best results in a SCIP home:

- Plan for a 3-node mesh Wi-Fi system during design (budget approximately $200–$400 for quality hardware).
- Route Cat-6 ethernet in conduit during panel construction to provide wired backhaul between mesh nodes — the most reliable approach.
- Use Wi-Fi 6 (802.11ax) equipment, which handles dense environments and signal reflection significantly better than earlier standards.

> **Note:** This same planning consideration applies to ICF homes, masonry homes, and older plaster-and-lath construction. Mesh networking has made it a non-issue for properly planned installations.

9. Cost Comparison: SCIP vs. Stick Frame

Q: How much more does SCIP construction cost — and how long does it take to recover the difference?

This deserves a detailed, honest answer — not a vague 'it depends.'

Upfront Cost Premium

Construction data shows a cost premium of approximately 3%–10% for SCIP/panel systems over stick-frame construction, depending on project size, design complexity, contractor experience, and region. Academic research from the University of Colorado showed roughly 10% for small-scale residential; industry comparisons from SIPA show 3%–7% for minimally-specified projects.

Critically, a fair comparison must account for what SCIP replaces. SCIP simultaneously eliminates framing, insulation, and exterior sheathing — three separate line items in a stick-frame budget. When those are added to the stick-frame side, the net premium often narrows to near parity. Labor savings also reduce the difference: studies show panel systems save approximately two-thirds of on-site framing labor.

Energy Savings

TIPS panels provide an EPS insulation core with R-values in the R-17 to R-20 range, plus the thermal mass effect of concrete on both faces. Documented energy savings for SCIP and comparable panel construction consistently show 40%–60% reductions in heating and cooling costs vs. equivalent stick-frame construction.

Approximate payback example (adjust to your project):

- $400,000 construction cost, 5% SCIP premium = $20,000 additional upfront.
- Energy savings at 40% of $2,400/year utility spend = $960/year.
- Energy-only payback: approximately 21 years.
- Add insurance savings ($500–$1,500/year for disaster-resistant concrete construction): payback shortens to 10–15 years.
- Add zero termite treatment, moisture remediation, and structural maintenance costs over the building's 100+ year life: SCIP consistently wins the long-term comparison.

Insurance Savings

Concrete construction qualifies for significant homeowner's insurance discounts — particularly in Colorado Springs, where hailstorms, wildfire interface, and severe wind are real exposures. SCIP meets all requirements for the IBHS (Insurance Institute for Business & Home Safety) Fortified GOLD designation, which produces the largest available premium reductions.

> **Note:** Every project is different. Coons Construction provides detailed cost estimates tailored to your specific plans. Call us and let's run the actual numbers for your project — we don't quote in generalities.

10. Structural Performance & Disaster Resistance

Q: How does SCIP handle severe weather — hurricanes, wildfires, earthquakes?

SCIP's disaster resistance is its most tested characteristic:

- **Hurricane/wind:** Concrewall panels passed missile impact testing at approximately 200 mph. An RSG-3D structure at San Jose del Cabo survived five Category 5 hurricanes with zero structural damage. RSG-3D homes in South Florida survived Hurricane Andrew. TIPS panels carry ICC/IAPMO certification with no seismic zone limitations.
- **Earthquake:** An RSG-3D NSF facility survived two earthquakes of 6.9 and 6.5 Richter with zero damage. SCIP systems meet ASCE 7 seismic requirements. TIPS provides earthquake protection at ground accelerations of 0.4g, approximately 7.5 on the Richter scale (Utah State University).
- **Wildfire:** When the Valley Fire swept Northern California in 2015 and destroyed 1,900 homes, the one RSG-3D structure in the fire's path survived intact. Concrete does not burn.
- **Termites & mold:** EPS foam is inorganic and inert — not food for insects and does not absorb water. Concrete does not mold. These failure modes are simply not present in SCIP construction.
- **Longevity:** SCIP buildings have a documented design life exceeding 100 years. The structural integrity does not degrade the way wood framing does over decades.

Q: How does SCIP compare to drywall walls for sound insulation?

SCIP walls deliver substantially better sound isolation than standard drywall. A typical 2x4 stud wall with drywall and no insulation achieves an STC (Sound Transmission Class) rating of approximately 33 — barely enough to muffle raised conversation. Add batt insulation and STC reaches roughly 39.

Concrete walls of comparable thickness typically achieve STC ratings in the high 40s to low 50s. SCIP walls — concrete, foam, concrete — perform similarly to concrete block, with the foam core providing additional vibration dampening between the two faces. Tested STC for SCIP walls typically falls between 45 and 55 depending on panel configuration and shotcrete thickness.

Metal stud partition walls with 5/8" drywall and batt insulation in the cavity typically achieve STC 45–50. For premium acoustic separation in bedrooms or media rooms, double-layer drywall or staggered stud assemblies can push STC to 55–60.

11. Additional Frequently Asked Questions

Q: How long does SCIP construction take compared to conventional framing?

Faster — typically by a meaningful margin. Panels arrive pre-cut and pre-fabricated with openings already formed. One or two workers can position panels; the framing and insulation phases are completed simultaneously. Studies of panel-based construction systems show up to 55% reduction in framing cycle time vs. stick frame. Shorter construction timelines also reduce carrying costs on construction financing.

Q: What is the R-value of TIPS panels, and can it be increased?

A standard TIPS panel with 4" EPS core provides approximately R-17 to R-20 for the insulation alone. This can be increased by specifying a thicker or denser EPS core — some configurations reach R-36. Additionally, the thermal mass of concrete on both sides improves real-world thermal performance beyond what the R-value number alone suggests, by absorbing and slowly releasing heat through the thermal mass effect.

Q: Is SCIP construction code-compliant in Colorado?

Yes. TIPS panels are certified by ICC through IAPMO for all seismic zones A–F with no limitations, and are engineered to IBC and ASCE standards. Colorado Springs projects are permitted through the local building department with engineering submittals — which Coons Construction coordinates as part of our design-build service.

Q: How does SCIP compare for resale value?

SCIP homes are increasingly recognized as high-performance assets: lower operating costs, disaster resilience, insurance savings, and a documented 100+ year lifespan. As energy codes tighten nationwide, homes built to higher performance standards face less pressure to upgrade over time. Coons Construction recommends documenting your SCIP home's performance specifications at time of build for use in future appraisals and listings.

Q: Can SCIP panels be used for custom and architecturally complex designs?

Yes. TIPS panels are cut to design — not to standard module sizes. Custom angles, curved walls, vaulted ceilings, and non-standard openings are all achievable. Coons Construction's design-build approach coordinates architectural intent with panel specifications from the start, preventing costly changes after fabrication.

Q: Is SCIP construction environmentally sustainable?

Yes, in several documented ways:

- Less waste: panels are fabricated to specification, producing far less jobsite waste than stick framing.
- Less concrete: TIPS uses 30–50% less concrete than conventional concrete construction of equivalent strength.
- Lower lifetime carbon: a 40–60% reduction in operational energy dramatically reduces lifetime carbon emissions.
- Longevity: a 100+ year lifespan means fewer rebuilds and less embodied carbon over time.

Q: What warranties apply to SCIP construction?

TIPS panels carry warranty coverage for manufacturing defects. Coons Construction provides workmanship warranties per Colorado contractor licensing requirements and is happy to discuss specific warranty terms during the estimating process.

Still Have Questions?

SCIP construction is still uncommon in Colorado Springs — and that means answers are not always easy to find from neighbors or the internet. We built this guide to be as complete as possible, but every project is different.

Coons Construction Inc has been building in Colorado Springs since 2012. David Coons brings 35+ years of construction experience. We are one of the very few local contractors with direct SCIP/TIPS installation expertise. We don't pass you off to a coordinator you have never met.

Call us and you will talk to someone who can actually answer your question.

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