SUPER FLOOR

BUILDING EXCELLENCE, ONE FLOOR AT A TIME.

Suspended Composite Concrete Floor System

Super Floor offers the highest quality suspended concrete floor systems on the market. Our systems are designed to provide superior strength and stability, while still being easy to install and maintain.

VISIT OUR WEBSITE:

superfloorusa.com

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Discover the comprehensive guide to Super Floor's innovative concrete floor system in our brochure. From detailed specifications to case studies showcasing real-world applications, our brochure provides insight to architects, engineers, and construction professionals. Explore the benefits, features, and technical details of Super Floor, empowering you to make informed decisions for your next construction project.

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Introduction

Super Floor is a leave-in place formwork system that can be installed by almost anyone. The system combines a pre-cambered galvanized steel joist, formwork galvanized metal tray, and support bars all made to measure to ensure a high-quality finished floor decking system with fast installation.

The Super Floor system is manufactured locally from pre-galvanized high-tensile steel. The joists are placed on the primary support then the Super Floor support bars secure the joists into the correct spacing position. Finally, the tray/pan is manufactured to the same length as the joists and is laid across the support bars. The system is now ready for wire mesh reinforcement to be placed, without the need for “chairs” and the concrete to be placed and finished. Generally, Super Floor uses a 3.5”- 4” concrete topping but can easily be designed for thicker slabs if required.

The Super Floor USA composite floor system is suitable for use in all types of construction including ICF structures, Steel frame buildings, masonry buildings, poured or precast concrete. From single-family detached housing to mid-rise multi-story residential and commercial buildings as well as parking garages. Super Floor is a complete proprietary system that provides contractors and developers with a piece of mind solution allowing them to continue works on site without interruption, increasing productivity and efficiency.

Nick Ruebel
MANAGING PARTNER

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Why Choose Super Floor

At Super Floor, we simplified the construction of any suspended concrete floor application with our state-of-the-art cold-formed steel framing systems. Elevate your projects with precisely engineered solutions that provide a superior building structure and maximum design flexibility. Our in-house manufacturing ensures every component, from Joists to Lateral Support Bars and Steel Trays, is tailored to your project's specific requirements. Experience the advantages of the Super Floor System, including no shoring, expedited construction timelines, and a commitment to sustainability.

Exceptional Strength

Super Floor supports up to 500 PSF loads, surpassing rivals. Stable, reliable, and robust, it ensures enduring durability and reliability in construction projects.

Fast and Easy Installation

With all the components custom-manufactured to suit the project and no need for shoring, our system offers a fast and easy installation process. Increase productivity on-site and reduce construction timelines.

Cost-Effective

By reducing material usage and eliminating the need for additional support, our system offers a cost-effective solution without compromising on quality or performance.

Environmentally Responsible

Super Floor minimizes waste and is 100% recyclable, making it an environmentally responsible choice for your construction projects.

Seamless Integration

Our steel joists have pre-punched holes. Effortlessly integrate mechanical services like hydraulic and HVAC systems. Streamline installation and minimize complications.

Versatile Application

Are you building residential homes, mid-rise buildings, or commercial structures? Our system offers unparalleled versatility, making it suitable for many construction applications.

Effortless Installation

Say goodbye to complex frameworks. Super Floor simplifies installation with its leave-in-place formwork design. No propping is needed, saving time and resources.

Compliance and Reliability

Super Floor meets or exceeds many applicable building standards and codes. Our system undergoes rigorous testing to ensure compliance and reliability.

Proven Performance

Super Floor has a track record of proven performance in a wide range of construction projects. The system is supplied and delivered including all the components required to complete the project.

For Contractors

Super Floor makes sense to construction contractors for 3 main reasons.

1. **Revenue** - Contractors can supply and Install Super Floor on their projects giving them another income stream.
2. **Control** - The Contractor maintains control of the project giving them and their staff better efficiencies and improving the project outcome timeline.
3. **Difference** - Gives a point of difference between themselves and other Contractors providing full structure solutions for their clients.

Super Floor Case Studies

From residential homes to commercial developments, each Super Floor USA project showcases our dedication to excellence, innovation, and client satisfaction. You can view all of our recent projects on our website by clicking here.

Atkins Residence – Super Floor and Stronghold ICF

View Project →

Wall Residence – Super Floor and Nudura ICF

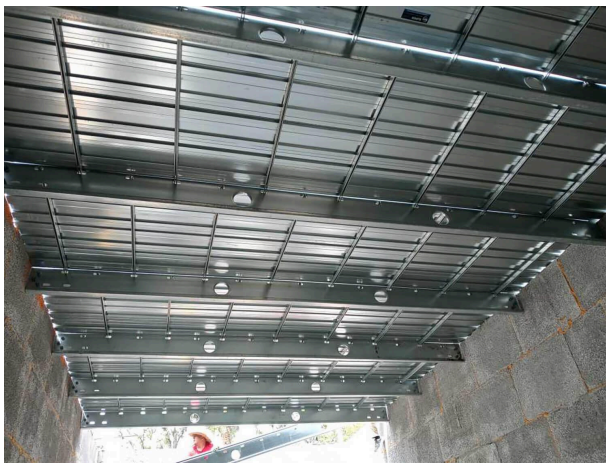
View Project →

McCrum Residence – Super Floor and BuildBlock ICF

View Project →

Raisch Residence – Super Floor and Stronghold ICF

View Project →



Peace of Heart – Super Floor and Legacy Block

View Project →

Redeemed Christian Church – Super Floor and Stronghold ICF

View Project →

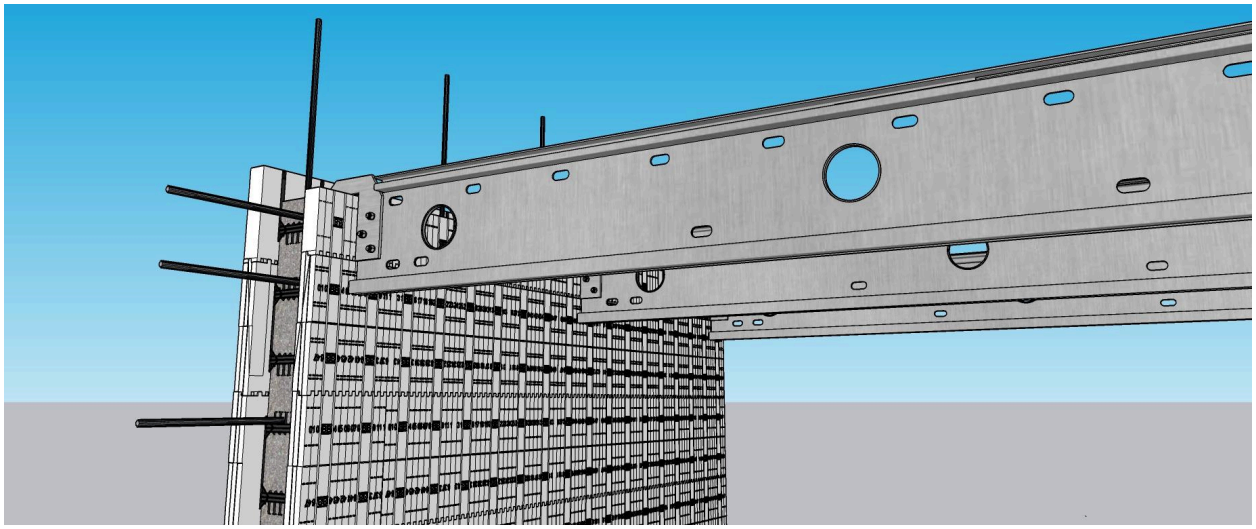
Essex Residence – Super Floor & Nudura ICF

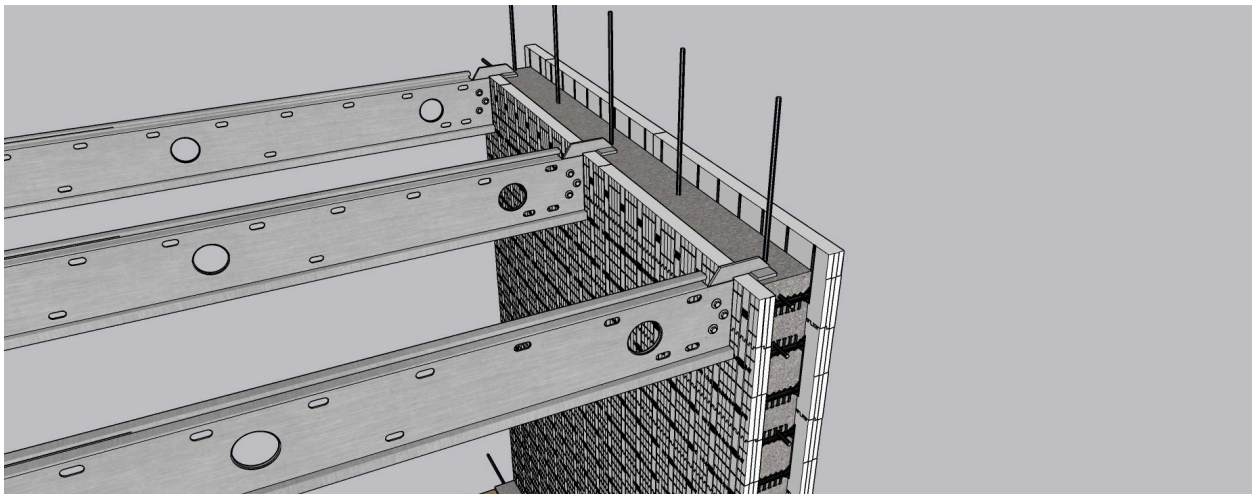
View Project →

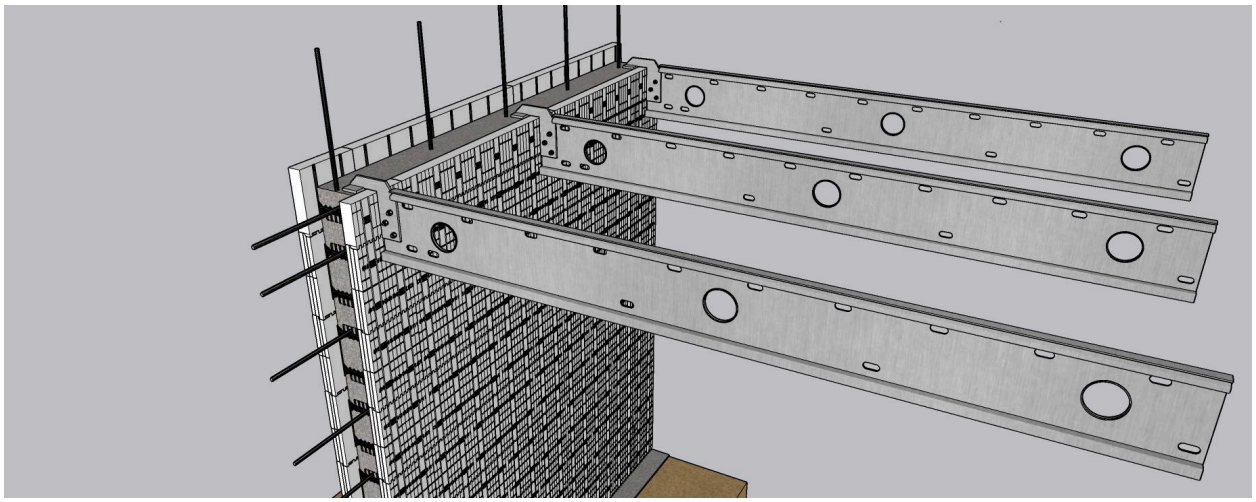
Schafer Pool House – Super Floor and Poured Wall

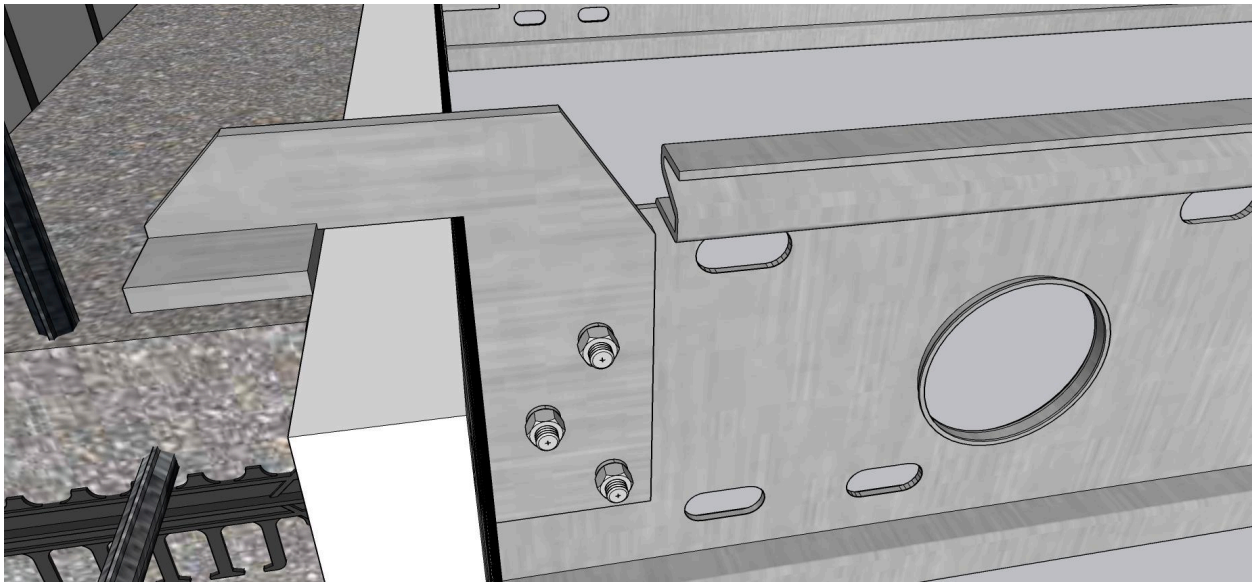
View Project →

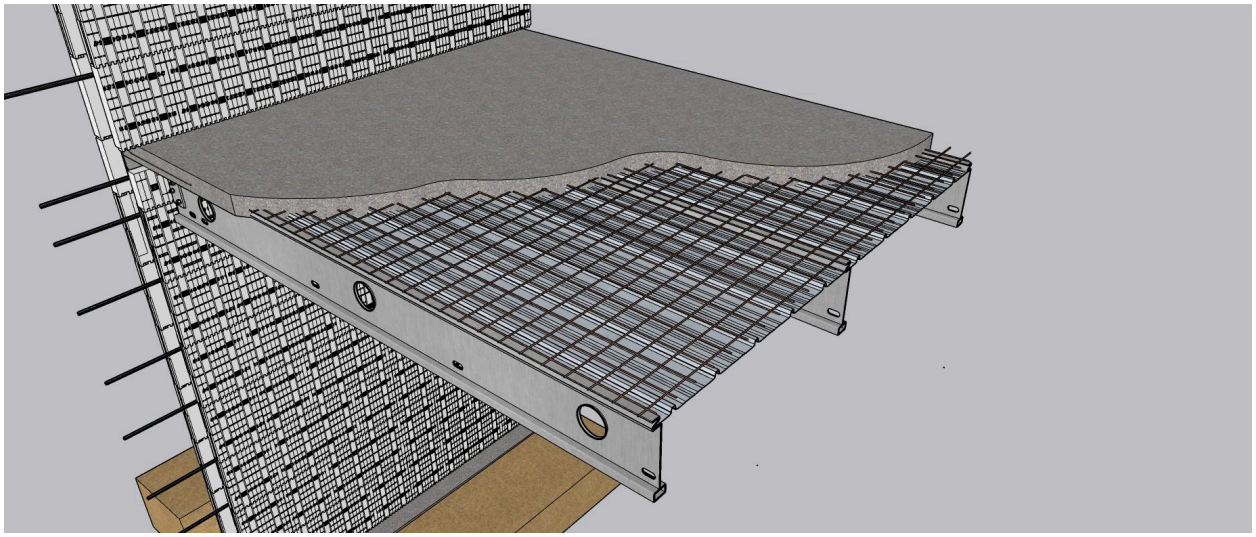
Super Floor System Renderings

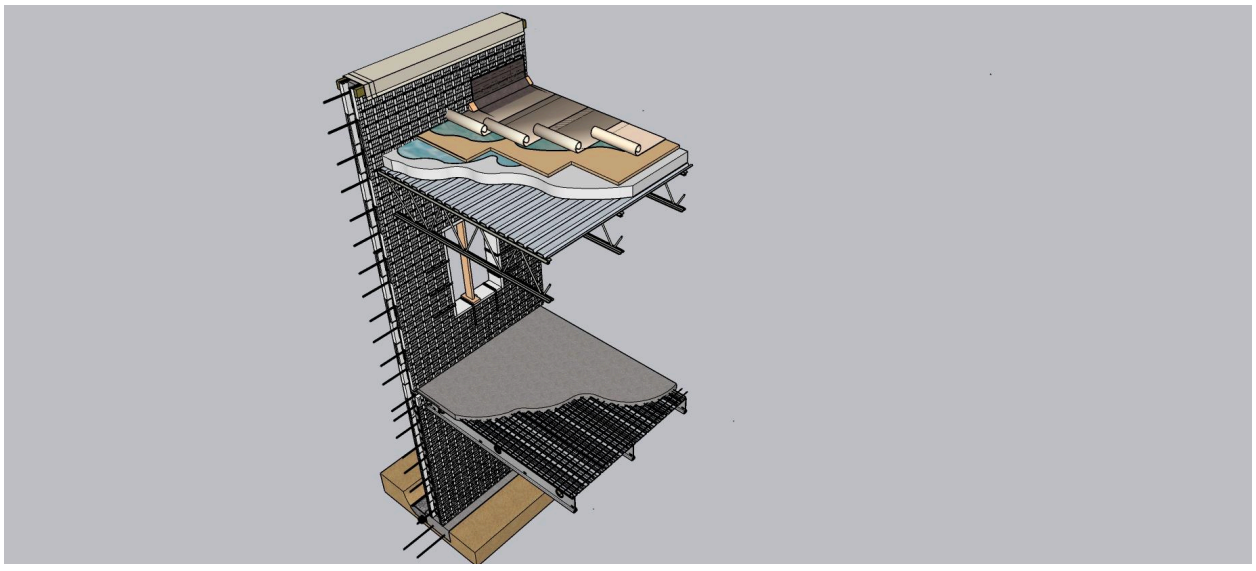








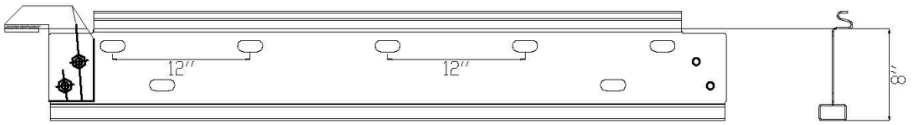




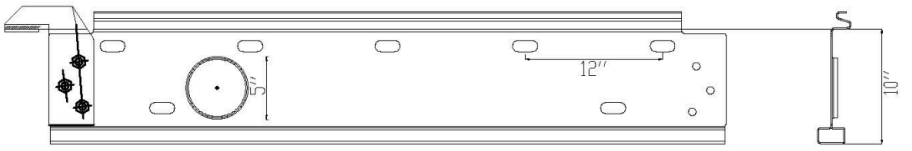
Joist Profiles and Sizes

6 Inch

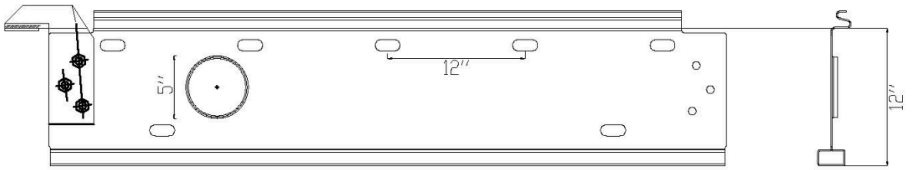
8 Inch



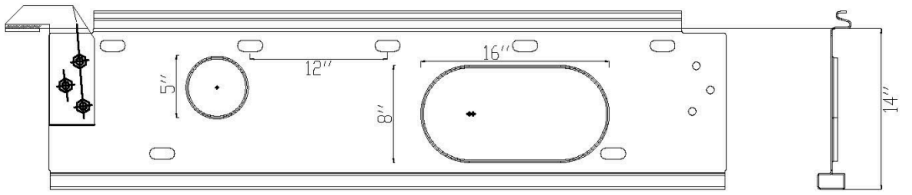
10 Inch



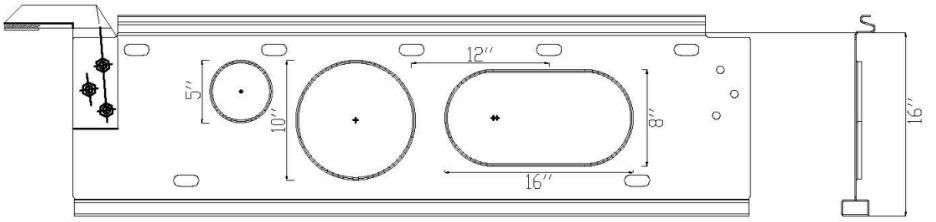
12 Inch



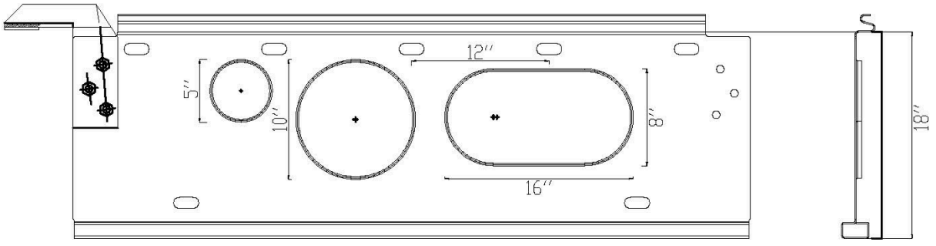
14 Inch



16 Inch



18 Inch



Super Floor Load/Span Tables

STRUCTURAL DESIGN CONDITIONS

- Tables are based on a SDL of 10 PSF and Construction Live Load of 20 PSF
- Concrete compressive strength 4000 psi
- Joists are rolled from 2.97BMT material (SS50 -G90 Galvanized steel)
- First joist hole to be min. 4' from joist end
- Joists are precambered 0.015" per 10' length
- Vibration has not been considered for span tables
- Dead loads are superimposed in addition to the weight of the floor including concrete.
- No propping required to slab during placement
- Capacities calculated in accordance with ANSI/AISI S100-12, North American Specification
- for Design of Cold-formed Steel Structural Members, Load and Resistance Factor Design (LRFD)

LOADING

- Element Dead Load (PSF) Live Load (PSF)
- Installed Floor Dead Load is 50 PSF (with 4" topping)
- Suspended Slab Details (over ‘Super Floor’ Joists)
- 3.5” thick slab U.N.O.
- 6 - 6 ,4.0 x 4.0 WWM, ASTM A1064, GRADE 70.
- #4 Rebar Overall Beam and Slab Edges TYP.

CONCRETE PROPERTIES

- Minimum 3500 PSI

GENERAL NOTES

- No point load greater than 3000 pounds to be applied to the Super Floor slab.
- These Span Tables are for estimating only. Final design to be determined by engineer.
- Stairs, columns, steel beams and concrete beams by others.
- Concrete Beams to be poured prior to Super Floor installation

SUPER FLOOR

L/360 Deflection									
Slab Topping	Joist Size	40 PSF LL/Joist spacing (ft)				50 PSF LL/Joist spacing (ft)			
		2'	3'	4'	5'	2'	3'	4'	5'
		Clear Span Capability				Clear Span Capability			
3.5"	6"	16'-7"	14'-8"	13'-4"	12'-4"	16'-3"	14'-6"	13'-2"	12'-2"
	8"	20'-4"	18'-1"	16'-7"	15'-6"	20'-2"	17'-10"	16'-3"	15'-2"
	10"	24'-0"	21'-3"	19'-6"	18'-2"	23'-7"	21-0"	19'-2"	17'-10"
	12"	27'-3"	24'-3"	22'-1"	20'-6"	27'-0"	23'-10"	21'-10"	20'-3"
	14"	30'-6"	26'-9"	24'-6"	22'-8"	30'-2"	26'-7"	24'-2"	21'-2"
	16"	33'-4"	29'-5"	26'-10"	25'-0"	33'-0"	29'-1"	26'-6"	24'-3"
	18"	34'-0"	31'-10"	29'-2"	27'-1"	33'-8"	31'-6"	28'-8"	26'-8"
4.0"	6"	16'-2"	14'-3"	13'-0"	12'-1"	16'-0"	14'-1"	12'-10"	12'-0"
	8"	19'-10"	17'-7"	16'-1"	15'-0"	19'-8"	17'-4"	15'-10"	14'-9"
	10"	23'-6"	20'-9"	19'-0"	17'-8"	23'-2"	20'-6"	18'-9"	17'-6"
	12"	26'-9"	23'-9"	21-8"	20'-3"	26'-6"	23'-6"	21'-6"	20'-0"
	14"	30'-0"	26'-7"	24'-4"	21'-9"	28' -6"	26'-0"	23'-7"	20'-6"
	16"	33'-1"	29'-4"	26'-9"	24'-9"	32'-7"	29'-0"	26'-6"	23'-6"
	18"	34'-0"	31'-8"	29'-0"	27'-0"	33'-6"	31'-6"	28'-8"	25'-8"
	Joist Size	80 PSF LL/Joist spacing (ft)				100 PSF LL/Joist spacing (ft)			
		2'	3'	4'	5'	2'	3'	4'	5'
		Clear Span Capability				Clear Span Capability			
3.5"	6"	15'-7"	13'-10"	12'-8"	11'-6"	14'-10"	13'-6"	11'-10"	10'-7"
	8"	19'-3"	17'-2"	15'-8"	14'-3"	18-10"	16'-8"	14'-9"	13'-3"
	10"	22'-9"	20'-2"	18'-6"	16'-7"	22'-3"	19'-8"	17'-2"	15'-4"
	12"	25'-6"	23'-0"	20'-7"	18'-6"	25'-3"	22'-1"	19'-2"	17'-1"
	14"	28'-10"	24'-0"	22'-6"	20'-3"	28'-2"	24'-2"	20'-8"	18'-6"
	16"	31'-9"	28'-1"	24'-7"	22'-0"	31'-2"	25'-5"	22'-9"	20'-4"
	18"	34'-0"	30'-6"	26'-6"	23'-6"	33'-6"	28'-2"	24'-7"	20'-7"
4.0"	6"	15'-4"	13'-6"	12'-3"	11'-0"	15'-0"	13'-2"	11'-3"	10'-2"
	8"	19'-0"	16'-7"	15'-4"	13'-8"	18'-2"	16'-3"	14'-2"	12'-8"
	10"	22'-3"	19'-11"	18'-2"	16'-6"	22'-0"	19'-4"	17'-2"	15'-4"
	12"	25'-4"	22'-7"	20'-7"	18'-6"	23'-7"	22'-2"	19'-3"	17'-3"
	14"	28'-2"	23'-9"	22'-0"	20'-1"	27'-10"	23'-6"	20'-5"	18'-5"
	16"	31'-6"	28'-0"	24'-7"	21'-9"	30'-8"	26'-7"	22'-8"	20'-5"
	18"	34'-0"	30'-6"	26'-6"	23'-5"	33'-7"	28'-5"	24'-7"	21'-2"

SUPER FLOOR

L/500 Deflection									
Slab Topping	Joist Size	40 PSF LL/Joist spacing (ft)				50 PSF LL/Joist spacing (ft)			
		2'	3'	4'	5'	2'	3'	4'	5'
		Clear Span Capability				Clear Span Capability			
3.5"	6"	15'-6"	13'-8"	12'-7"	11'-10"	15'-3"	13'-7"	12'-6"	11'-7"
	8"	19'-1"	17'-0"	15'-7"	14'-6"	19'-0"	16'-9"	15'-4"	14'-4"
	10"	22'-6"	20'-0"	18'-3"	17'-1"	22'-3"	19'-8"	18'-1"	16'-10"
	12"	25'-5"	22'-9"	20'-10"	19'-7"	25'-2"	22'-7"	20'-8"	19'-4"
	14"	28'-8"	25'-6"	23'-3"	21'- 8"	28'-2"	25'-3"	23'-1"	21'-6"
	16"	31'-8"	28'-0"	25'-6"	23'-9"	31'-4"	27'-7"	25'-4"	23'-6"
	18"	34'-0"	30'-3"	27'-8"	25'-9"	33'-6"	30'-1"	27'-4"	25'-6"
4.0"	6"	15'-3"	13'-4"	12'-3"	11'-4"	15'-0"	13'-4"	12'-1"	11'-4"
	8"	18'-7"	16'-5"	15'-1"	14'-1"	18'-6"	16'-5"	15'-0"	14'-0"
	10"	22'-0"	19'-5"	17'-11"	16'-7"	21-9"	19'-4"	17'-8"	16'-6"
	12"	25'-1"	22'-4"	20'-5"	19'-1"	24'-10"	22'-1"	20'-2"	18'-10"
	14"	28'-6"	25'-0"	22'-10"	21'-5"	27'-10"	24'-8"	22'-8"	21'-3"
	16"	31'-0"	27'-7"	25'-3"	23'-7"	30'-10"	27'-4"	25'-1"	23'-4"
	18"	33'-8"	30'-1"	27'-7"	25'-7"	33'-7"	29'-10"	27'-4"	25'-4"
	Joist Size	80 PSF LL/Joist spacing (ft)				100 PSF LL/Joist spacing (ft)			
		2'	3'	4'	5'	2'	3'	4'	5'
		Clear Span Capability				Clear Span Capability			
3.5"	6"	14'-10"	13'-2"	12'-1"	11'-3"	14'-8"	13'-0"	11'-10"	10'-2"
	8"	18'-4"	16'-3"	15'-0"	14'-0"	18'-1"	16'-1"	14'-7"	12'-10"
	10"	21'-8"	19'-2"	17'-6"	16'-1"	21'-3"	18'-10"	17'-2"	15'-4"
	12"	24'-7"	21'-10"	20'-1"	18'-5"	24'-4"	21'-6"	19'-3"	17'-3"
	14"	27'-5"	24'-6"	22'-6"	20'-3"	27'-2"	23'-8"	21'-3"	19'-0"
	16"	30'-6"	27'-1"	24'-6"	22'-0"	30'-0"	26'-3"	23'-1"	20'-6"
	18"	33'-2"	29'-3"	26'-6"	23'-7"	32'-7"	28'-3"	24'-7"	22'-0"
4.0"	6"	14'-6"	12'-9"	11'-10"	11'-0"	14'-4"	12'-7"	11'-4"	10'-2"
	8"	18'-0"	16'-0"	14'-7"	13'-7"	17'-6"	15'-6"	14'-3"	12'-10"
	10"	21'-3"	18'-10"	17'-3"	16'-0"	21'-0"	18'-7"	17'-0"	15'-4"
	12"	24'-3"	21'-6"	19'-7"	18'-4"	23'-10"	21'-2"	19'-1"	17'-3"
	14"	27'-2"	24'-1"	22'-1"	19'-8"	26'-8"	23'-7"	21'-2"	19'-0"
	16"	30'-0"	26'-6"	24'-4"	21"-9"	29'-7"	26'-2"	23'-0"	20'-6"
	18"	32'-8"	29'-1"	26'-5"	23'-1"	32'-2"	28'-2"	24'-7"	22'-2"

Frequently Asked Questions

What kind of support does Super Floor USA provide throughout the construction process?

Super Floor USA offers a full-service approach, providing support from project pricing and engineering to manufacturing and on-site installation. This comprehensive support ensures the success of each project.

What is the lead time from acceptance?

It depends on the scope of the project but for a residential job under 8,000 sq ft. We can ship typically in 4-6 weeks.

Do we deal with you at the manufacturing level or do we have a regional guy per area of jobs?

We do not have a distributor that handles Idaho yet, so you would deal directly with us until then.

Where is Super Floor USA located?

The company and manufacturing is headquartered in Batavia, OH.

Do you offer any warranties for your cold-formed steel framing systems?

Check with a Super Floor USA representative for specific details regarding product warranties.

Are your framing systems compliant with building codes and regulations?

Check with a Super Floor USA representative for specific details regarding the compliance of our framing systems.

Is this a stay-in-place form?

Yes.

How thick should the concrete be?

A minimum of three and a half inches is recommended, but four inches offers a more rigid floor.

What's the maximum span?

We can span up to 30 ft depending on the load requirements.

How does the Super Floor System contribute to faster construction timelines?

The precision manufacturing of components, such as Joists, Lockbars, and Trays, in-house allows for a seamless fit, reducing labor costs, and speeding up the construction process. Additionally, the system requires no shoring, further enhancing construction efficiency.

What types of projects is the Super Floor system best suited for?

The Super Floor system is ideal for mid-rise construction, including condominiums, apartments, hotels, and various institutional, commercial, and industrial buildings. Its versatility allows integration with different building materials.

Can you explain the integration of the Super Floor system with other building materials on construction projects?

The Super Floor system is designed to integrate seamlessly with various building materials, offering flexibility in construction. The systems include pre-punched service holes, allowing for efficient collaboration with mechanical, electrical, and plumbing components.

What are the key differences between the Super Floor system and other flooring systems?

Super Floor offers faster installation with pre-cut components and hanger brackets, reducing labor intensity compared to traditional methods like I-Joists and plywood.

Can the Super Floor system accommodate overhangs?

Yes, overhangs of up to three or four feet are feasible with conventional forming and appropriate steel support.

What materials are used in the Super Floor system?

The system uses high-tensile galvanized steel joists and trays with G110 coating for trays and G90 for joists and lock bars to prevent corrosion.

What wall systems are compatible with Super Floor?

Super Floor can be used for a variety of building types, including ICF structures, Steel frame buildings, masonry buildings, poured in-situ, and precast concrete.

What are the fire resistance properties of the Super Floor system?

The concrete topping provides excellent fire resistance compared to traditional wood flooring systems.

How does the Super Floor system integrate with ICF?

Special hanger brackets are used to bridge the foam, and the concrete floor is poured up to the outside portion of the block, ensuring continuity and structural integrity.

What are the advantages of using lightweight concrete with your Super Floor system?

Lightweight concrete is not recommended with our system as it may not fully support the pre-cambered joists.

What is the typical joist spacing for Super Floor systems?

Joist spacing varies from 1 to 5 feet, depending on load requirements and design specifications.

Can the system be used for both flat and pitched roofs?

Yes, the system is suitable for both, with specific design considerations for pitched roofs to ensure proper drainage and load support.

What safety procedures should be followed during installation?

Follow general safe work procedures, ensure correct and safe positioning of joists, use mobile scaffolding or lifts for height work, and complete a job safety analysis if site conditions differ from the standard procedure.

What are the benefits of using Super Floor in high-seismic regions?

Super Floor is designed to meet seismic requirements, providing flexibility and strength needed for earthquake-prone areas.

Can Super Floor simplify foundation design?

Yes, by reducing the need for multiple footers, Super Floor can simplify foundation design and potentially reduce construction costs.

How does the absence of shoring benefit construction projects using the Super Floor system?

The absence of shoring simplifies the construction process, saving valuable time and effort. It contributes to a cleaner construction site and reduces the amount of waste material to dispose of.

What are the methods for installing the Super Floor system, and which is the easiest?

The Super Floor system can be installed using various methods, including forklifts, material lifts, telescopic lifts (commonly known as lulls), cranes, and Bobcats. Among these, the telescopic lift (lull) is highlighted as the easiest method due to its efficiency in handling joists.

Can you provide more details about the custom manufacturing process for Joists, Lockbars, and Trays?

Super Floor USA takes pride in manufacturing Joists, Lockbars, and Trays in-house, ensuring the highest quality and precision tailored to each job. This custom approach guarantees a perfect match for the unique needs of each project.

What makes Super Floor USA's cold-formed steel framing systems different from others in the market?

Super Floor USA's systems stand out due to their innovative cold-formed steel framing technology, offering a higher quality building structure with greater design flexibility. The use of I-shaped components, patented connectors, and the Dovetail deck results in a simple, strong system.

Will your quote include shipping costs?

Yes. We typically use dedicated flatbed trucks, so it is a per-mile rate.

How is the Super Floor system shipped, and how are freight costs determined?

Freight costs are determined based on the size of the project and the distance from our manufacturing facility in Batavia, Ohio, to the project site. Shipping rates typically range from $2.50 to $3.50 per mile. Our team ensures that all components, including trays, joists with hanger brackets installed, and lateral support bars are securely packaged and transported efficiently to meet your project timeline.

What are the expected lead times for Super Floor system components?

Typically, for residential projects, the lead time is 30-35 days. Lead times can vary but are generally competitive, and we make every effort to accommodate project schedules.

Get Started with Super Floor

Request an Estimate

Ready to take the next step towards superior quality and performance in your construction projects? Don't hesitate to reach out to us today. Simply visit our website to fill out a form for a free estimate. Our team of experts will promptly assess your project needs and provide you with a detailed estimate tailored to your requirements.

Request an Estimate →

Schedule a Call

Looking for personalized guidance and expert advice? Schedule a call with one of our knowledgeable representatives. Whether you have specific questions or need assistance in choosing the right flooring solution for your project, our team is here to help. Take the first step towards excellence with Super Floor.

Schedule a Call →