







# Timeless. Handcrafted. Timber.

For nearly 50 years, our timber framers have been hand cutting timbers to create enduring structures meant to stand the test of time. Whether you're envisioning a home, barn, pavilion, or just a simple cabin, our team can help bring your vision to life.

We are proud to be one of the few companies offering both timber frames and Structural Insulated Panels (SIPs) as part of a comprehensive build package.

By integrating the design, manufacturing, and installation of timber frames and SIPs packages under one roof, we are uniquely positioned to offer our customers a cohesive, cost-effective, and efficient solution to their timber frame build process.

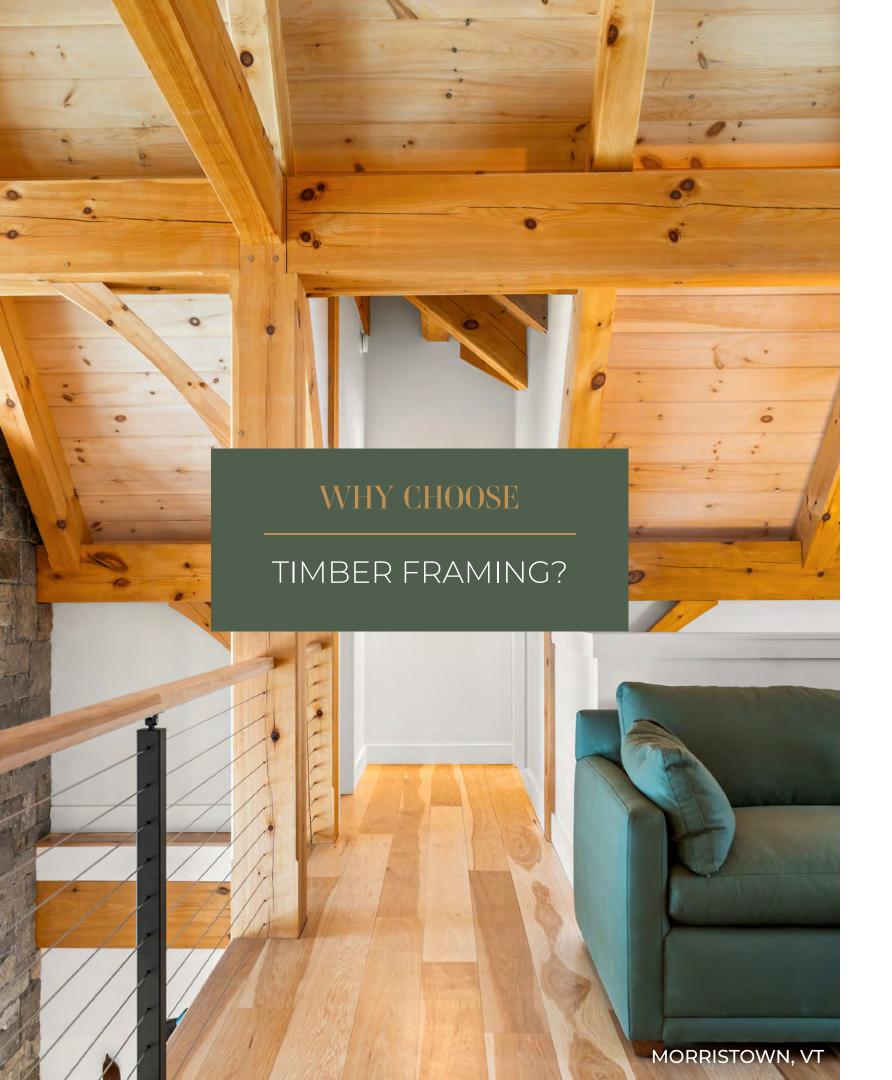
We pride ourselves on the quality of our handcrafted timber frames, and always put our client's best interests first.

We look forward to partnering with you on your next project.

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# Strength

One of the most significant advantages of timber framing is its exceptional durability and strength. Timber frame structures have stood the test of time, with many historical buildings still in excellent condition after centuries. The use of large, solid timbers provides superior load-bearing capacity, allowing for expansive open floor plans and high ceilings without the need for interior support walls.

# Beauty

Timber framing offers a unique and timeless aesthetic that sets it apart from other building methods. The natural beauty of the exposed wooden structure creates a warm, inviting atmosphere that can enhance any architectural style. Whether you prefer a rustic traditional look or a more modern minimalist design, timber framing can adapt to your vision. The visible joinery and rich textures of the wood add character and elegance, making each structure truly unique.

# **Heritage**

There is an authenticity to a timber frame - a structure that is not pretending to be anything it is not. Every beam and every post is there for a purpose, doing the structural work of holding up your home. Because our craft is on display for everyone to see, we know that every joint matters. This is why we hand cut all our timber frames, using traditional mortise and tenon joinery that fits together tightly and beautifully to create the structure of your home. Your timber frame will become part of a tradition that goes back centuries, and that will live on into the future, long after we are gone.







# FOAM LAMINATES

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STRUCTURAL INSULATED PANEL SYSTEMS

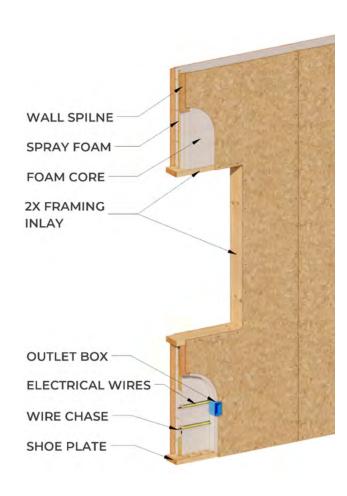
# What are Structural Insulated Panels (SIPs)?

SIPs are a high-performance building enclosure system made from two boards<sup>1</sup> glued to a high-density EPS<sup>2</sup> foam core. They serve as the sheathing and insulation solution used to create the exterior 'shell' of your home and reinforce the lateral stability of the timber frame. Our SIPs can be made as small as 4' x 8' and as large as 8' x 24'.

Unlike onsite solutions such as conventional framing, our panels are carefully designed using state-of-the-art CAD software, and then carefully and precisely fabricated in our climate-controlled facility. This ensures the panels go together smoothly & tightly on your job site.

# Why build with SIPs?

- » **Performance.** Our SIPs deliver continuous high-R-Value insulation and create extremely air-tight enclosures, often achieving blower door test results of less than 2ACH50<sup>3</sup>.
- » Speed. For most homes, our SIPs can be installed in 2-5 days. This gets your timber frame protected from the elements and accelerates follow-on trades' work, getting you into your home faster.
- » **Flexibility.** SIPs can accommodate a wide variety of floorplans and design goals.
- » **Strength.** Our standard wall SIP is stronger in compression than a 2x10 stud wall. In laboratory tests, SIPs out-perform conventional wall assemblies in wind shear testing.
- Cost. As with many high-performance systems, SIPs do cost a little more up front. However, that is largely made up for by the reduction in installation labor costs because they replace three steps (stud framing, sheathing, insulation) with one. More importantly, SIPs have been proven in a U.S Department of Energy Study<sup>4</sup> to use 50% less energy to heat and cool a structure, because of their high R-values and air tightness, when compared to conventional framing and insulation techniques.
- 1 Structural Grade PR-N612 Oriented Strand Boards (OSB), rated for Exposure 1. Meets or exceeds APA PS 2-18 Performance Standards for Wood Structural Panels.
- 2 1 pound nominal density / cubic foot Expanded Polystyrene (EPS)
- **3** A Blower Door test is a measure of a building's air tightness. 2ACH50 = Two Air Changes per Hour at 50 Pascals, meaning the air inside a building is exchanged with outside air twice in one hour at 50 pascals of pressure.
- 4 Dept. of Energy Oak Ridge National Laboratory Report dated Jan 2011, 'High Performance Homes That Use 50% Less Energy Than the DOE Building America Benchmark Building'



SIP Insulation Values			
Panel Thickness	EPS	GPS	
4 1/2"	R15	R18	
6 1/2"	R23	R27	
8 1/4"	R29	R38	
10 1/4"	R38	R45	
12 1/4"	R45	R54	
14 1/8"	R52	R63	

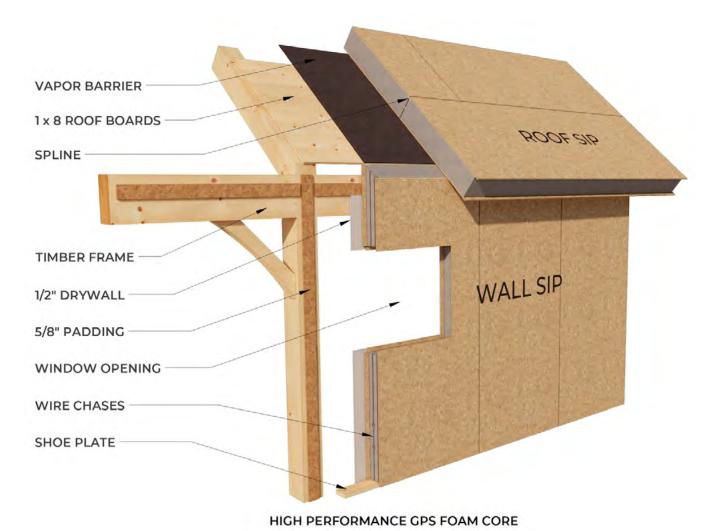
\*At 75 Degrees Fahrenheit





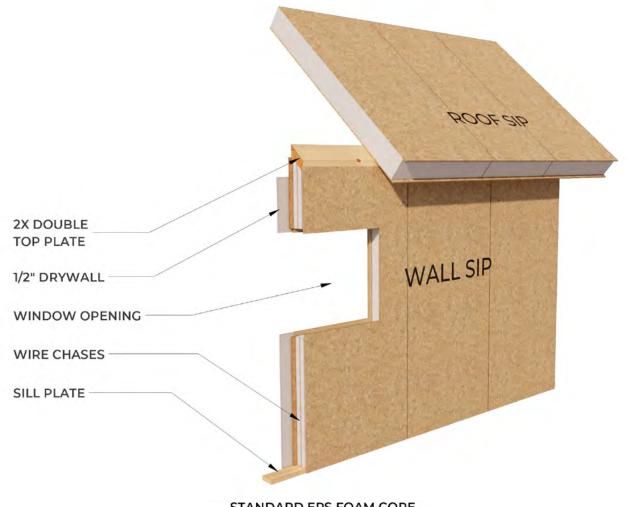
# Timber Frame with SIP Enclosure

As a complement to a full strucural timber frame, SIPs are an ideal sheathing and insulation option. They seamlessly mate to the timbers creating a very air tight, but importantly, vapor open, building enclosure. This provides a comfortable and healthy living environment with no off-gassing or Volatile Organic Compounds (VOCs). Our SIPs can be upgraded from an Expanded Polystyrene (EPS), to a Graphite Polystyrene (GPS) foam core, which improves their insulating R-value (see table on page 9).



# Structural Panel Buildings

SIPs are stronger than conventionally framed stud walls and can be used to build an entire structure, even without timbers, if desired. Wall and roof SIPs, with embedded dimensional lumber and trusses to take point loads, can be assembled to create an entire home within a matter of days. They are easy to modify and customize to accommodate most architectural plans. Visit **foamlaminates.com** for more details.

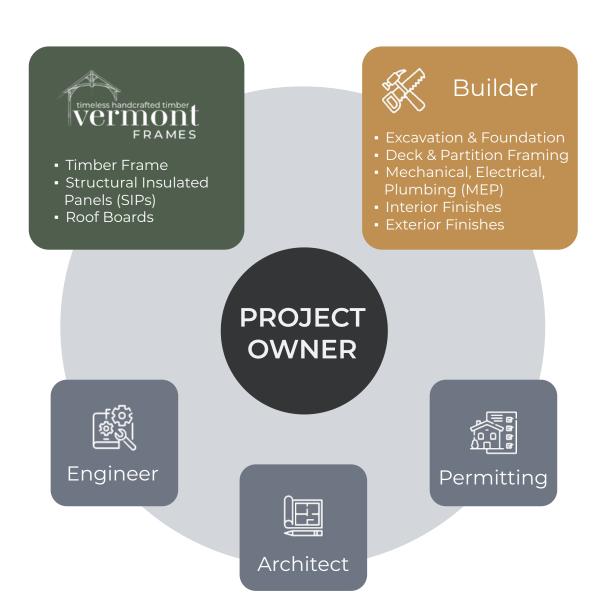


STANDARD EPS FOAM CORE

# CHARLOTTE, VI

# **Build Team**

Any timber frame project requires a Build Team to come together to successfully complete the project. We will work closely with you, your architect, and your builder, to make sure we are all aligned. Your vision, your design priorities, and your budget will guide members of the Build Team throughout the process.



# Experience

With over 375 years of combined experience, our team has cut thousands of timber frames for happy clients around the country. Along the way, we've gained insights and best practices which we bring to bear on every project.

By choosing to work with us, you'll have the confidence of knowing your project will be handled by professionals who know how to account for all the variables that go into a project, ensuring your timber frame and SIPs are tailored precisely to your specifications. Whatever the challenge, we've been there before, and we'll be there beside you throughout the process to get your project to a successful completion.





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GLOVER, VT

# Scope & Budget

Our Scope is the load bearing heavy timber structure and insulating enclosure of your project. Think of it as the 'bones' and 'shell' of your building.

Are you envisioning a simple timber frame barn or a more intricate, custom-designed home? Will you require our installation services for the timber frame and panels, or just the frame and panels as a Kit?

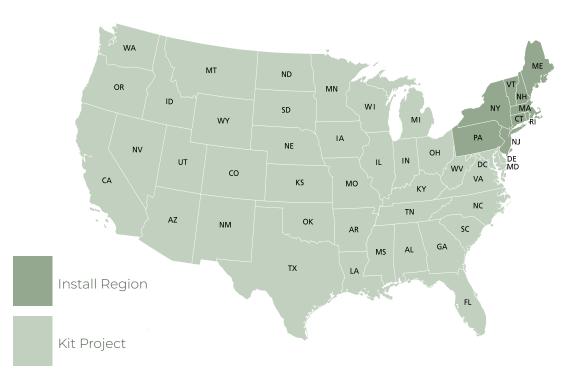
The overall scale of the project, including its size and design, will directly impact your project costs. Whether your project is modest, grand, or somewhere in between, we'll ensure that the finished timber frame structure matches both your expectations and your budget.

For up-to-date pricing information, please visit: www.vermontframes.com/pricing

# Service Area

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We can design, fabricate, and install a Timber Frame and SIPs package anywhere from Maine to New Jersey. For projects located beyond our install region, we can ship your timber frame and SIPs as a Kit package. We'll send a senior timber framer to oversee the installation by a local crew of your choice, ensuring a smooth and high-quality installation, no matter where your site is located.



# Design & Project Example



Timber Frame

Timber Frame with SIPs & Exterior Elements



Timber Frame & SIPs Cut Away



Timber Frame Installation



Timber Frame & SIPs

# Our Scope

- » Timber Frame Design & Engineering
- » Timber Frame Fabrication
- » Tongue & Groove Roof Boards
- » SIPs Manufacturing
- » Associated Fasteners & Hardware
- » Installation of Timber Frame, Tongue & Groove Boards, SIPs
- » On-site Guidance (for Kits)
- » Exterior Timber Elements

# **Building Partner**

- » Land, Foundation, & Site Preparation
- » Driveway, Water, Septic/Sewer, Power
- » Excavation & Foundation
- » Structural First Floor Deck Framing/Sheathing
- » Windows & Doors
- » Plumbing, Electrical, & HVAC Systems
- » Siding & Roofing
- » Interior Wall & Stair Framing
- » Interior Finishes
- » Landscaping
- » Installation of Exterior Timber Elements



& Builder Architect

For Illustrative Purposes:

Exact timelines are unique to each jobsite, design, and project complexity.

Please note, Vermont Frames and Foam Laminates can deliver projects within 3 months of contract signing, depending upon a variety of factors. Please contact us for current scheduling options for your project.

Develop Architectural Plans

Estimating & Planning

**Site Preparation** & Infrastructure

Excavation & **Foundation** 

Structural

Deck



**Builder Completes** Remaining Exterior & Interior Work

6 - 12 Months

0 Months

Joan Laminates of Vermont Vermont Frames &

# Estimating

# 1 Month

Estimating starts with understanding your vision and designing for the features you want.





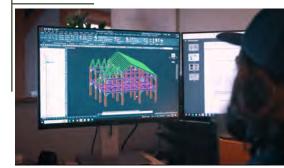
**Timber Frame** & SIPs Design

# 2 Months

We begin the Design Phase by crafting a set of timber frame and SIP shop drawings to conform to your architectural plans. Once you are happy with the designs, we'll ask you to sign off, authorizing us to order custom timbers and begin fabrication.

Drawing Sign-off

Cutting



# Sourcing Timbers & SIPs Cores

Based on your design, we will order a custom set of sustainably harvested timbers & foam cores.



# **Fabricate Timber** Frame & SIPs

Once they arrive, timbers & SIPs will be cut to exacting standards, ensuring seamless on-site assembly.





# **Install Timber** Frame & SIPs

# 2 Weeks

Balance Due

Once your site is ready, our team arrives to install your timber frame and SIPs in just 1-2 weeks.



**DESIGN** 

**FABRICATION** 

**INSTALL** 

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# Foundation & Deck

Your timber frame & SIPs will need a square, plumb, and level first-floor system or foundation to be installed upon. This is typically a slab foundation, piers, or a conventionally framed deck on top of a full foundation, built from dimensional lumber, engineered lumber, or steel. This is used as the first floor and the base of your structure. Each timber post will need solid support underneath it, the locations of which will be specified in the timber frame Shop Drawings we provide to you and your Builder. Your Builder will handle the installation of your foundation and deck.



# Delivery & Offload

You will need to provide a staging area near your foundation to receive and offload your timber frame and SIPs. It is extremely helpful, and saves time and cost, to have this area graveled or sanded to provide a solid work area for heavy equipment to maneuver on. It also helps keep your timbers and panels clean.



# Frame Raising

Our crew will carefully unpackage and assemble your timber frame one bent at a time, aided by our crane and operator. It is a magnificent sight to behold as your structure takes shape before your eyes. We often attract a crowd, and always encourage you to come and watch. Our crew can raise most timber frames within 2-5 days – it goes up fast. If you've opted for a Kit Install, then your builder, aided by one of our Senior Timber Framers will assemble the frame.



# Boards and Roof Wires

Most of our clients opt to have tongue and groove (T&G) ceiling boards over the timber rafters, but underneath their roof SIPs. They also often want ceiling fans and lighting up high which requires electrical cables to be run by an electrician. The moment to do this is after the timber frame is raised but before the SIP roof panels go on. We will coordinate with your builder to have their electrician on-site for this work in the middle of our installation.





# **SIP Enclosure**

Next we will 'pad out' the exterior faces of your timbers with strips of Oriented Strand Board (OSB) to give space for your builder to insert drywall on the inside of your home, behind the timber posts, against the inside facing of the wall SIPs. Then we'll carefully fasten your SIPs to the timbers, securing them with splines and sealing the roof panels with expanding foam. We intentionally do not spray foam the vertical wall seams, so that your electrician can run wires through the wire chases we precut into your wall SIPs. The wall SIPs will need to be spray foamed by your builder after the electrical wiring is done. We'll provide you and your builder with detailed instructions for this simple but crucial step. Our SIPs will give you an energy efficient enclosure that minimizes air leakage, saving you heating and cooling costs for the life of the structure.



# **Exterior Finishes**

At this point, we'll clean up and hand a tidy job site back to your builder, who will install your roofing, siding, windows, doors, and any other exterior components. Our SIPs can accommodate any siding you choose. We strongly recommend a vapor permeable building wrap such as 30 pound felt or equivalent, combined with a rain screen material, behind your siding, to allow any water that may get into your walls to escape.



# Interior Finishes

This is where your project crosses the finish line. Your builder will complete your structure with the interior finishes you've selected such as flooring, paint, cabinets, etc. Your plumber, electrician, and any other specialty trades will work with your builder to finish out your project, transforming it into the space you envisioned.

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Vermont









# How does Timber Framing compare to conventional building methods?

Timber framing is a great solution for homeowners and building professionals looking to achieve open-concept floor plans, cathedral ceilings, and exposed structural framing elements. There are no internal load bearing walls, just beautiful timber posts. This means almost any design can be adapted to be a timber frame.

# How much does a Timber Frame cost compared to conventional construction?

The level of craftsmanship required to design and cut a timer frame is higher than for conventional framing, and therefore it does cost more than conventional framing – but not a lot more. While it is hard to make direct comparisons our projects are usually 10-20% more expensive compared to equivalent conventionally built homes. Keep in mind that the majority of your project's costs remain unaffected by your choice to go with a timber frame and SIPs approach. Your roofing, siding, foundation, windows, flooring and all the other choices you make for finishes cost the same as they would have been with a conventional approach.

# How long does it take to build a Timber Frame home?

A timber frame can be designed, cut, delivered to your job site, and erected in anywhere from 3-12 months, depending on the size, complexity, and location of the project.

# What customization options are available for my timber frame home?

Timber Frame homes are highly customizable. You can choose just about any floor plan you like. We most commonly work with Eastern White Pine and Douglas Fir, but but can accommodate many other species as well. Whether you prefer a rustic, traditional look or a sleek, modern aesthetic, our team can tailor the design to match your preferences. Additionally, you can incorporate unique features like vaulted ceilings, large windows, and custom joinery. We work closely with you and your architect to ensure your home reflects your vision and lifestyle.

"Your crew exceeded ABOVE AND BEYOND my biggest expectations. They really were the talk of the town. Having worked through a Nor'easter and then to have a blizzard blow through and knock the power out of the town while dealing with the cold weather, was unbelievable to see how much work was being done each day! ... The start of my new home is more beautiful than I could have ever imagined! I can't wait to show it off when it's finished..."

# Christie Cape-Style Home Blue Hill, ME

"It's below zero today. Our propane fireplace was on this morning at 7:30AM and it will not come on again until 8:00PM or later this evening. Our home is so well insulated with the structural panels that we truly expect a heating bill of less than \$10 per month when it is -10 degrees outside! Our home shipped on September 26 th and our Certificate of Occupancy is dated December 26th, so that was 3 months to completion."

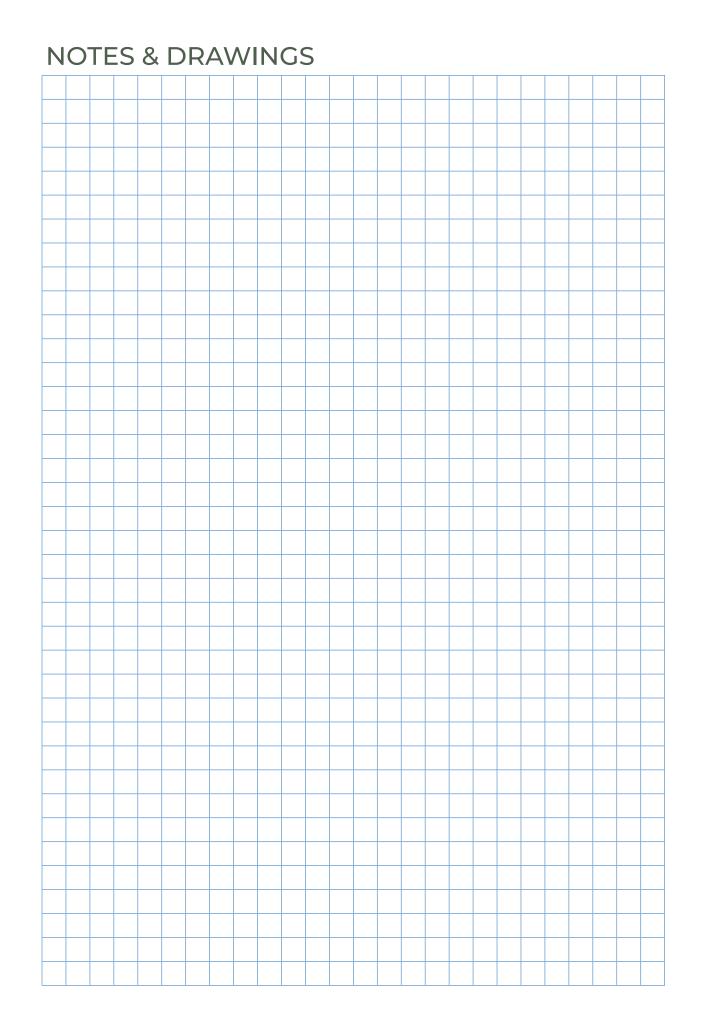
# Client in Colorado - Kit Project

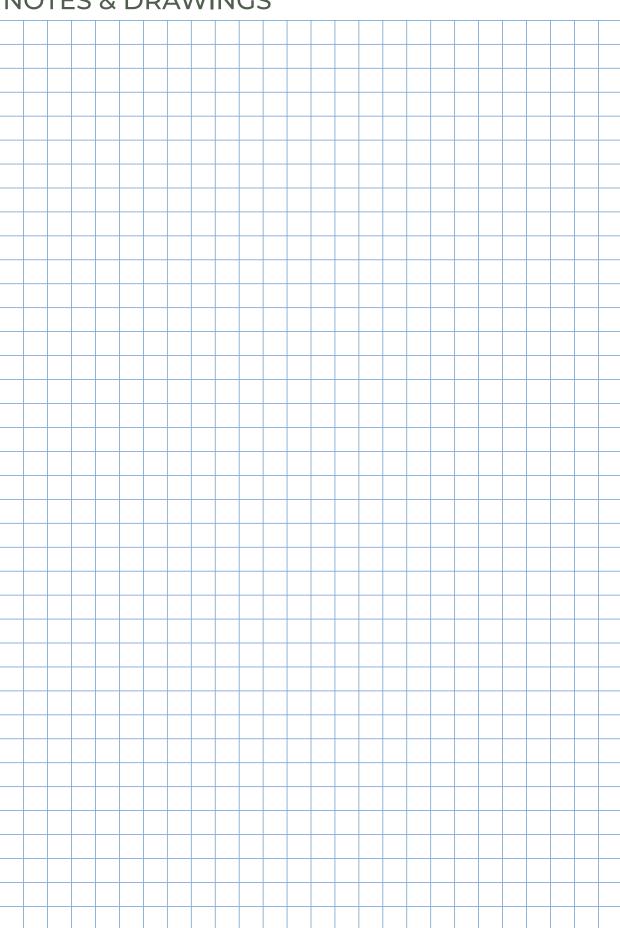
"Our lovely Timber Frame! The Vermont Frames crew is a remarkable and special group of individuals and we will always remember their kindness and care. The frame is just beautiful and the warmth of contrasting hues from the pine to the white wash to our love and appreciation of Douglas Fir, it's joyful. Also, to everyone who journeyed with us all these years, it's been very nice to have enjoyed your love and enthusiasm surrounding your timber frame craft. Please share our thanks."

## Susan and Craig

For more testimonials, please visit us at: vermontframes.com

Please visit vermontframes.com for a more complete list of FAQs









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