



YOUR HOME REIMAGINED



A former screened porch was converted to a dining room with a view at a historic project on Marblehead Neck.

# DREAMING ABOUT WHAT CAN BE

According to the Census Bureau's 2021 American Housing Survey, the median age of all homes owned in the country is 41 years old and 17% of our housing stock was built before 1950. These older homes located across the country represent many styles of American architecture. Here in New England, we see many Colonial-style homes as well as the regional vernaculars that followed.

The North Shore is an architectural survey unto itself. Ipswich boasts true Colonials, including many First and Second Period homes. In Essex, we see many Victorian-style homes, consistent with the timing of the village's separation from Ipswich and incorporation on its own. In Manchester-by-the-Sea, one finds Gilded Age "summer cottages" featuring Classical revival details and generous proportions. The 1950s housing explosion led to a variety of styles ranging from Royal Barry Wills storybook designs to Ranches and Sears catalog homes.

All of these homes have something in common. They have withstood the test of time. The buildings' façade have protected generations of inhabitants, and families have filled these spaces with memories. These homes are worth saving and improving and making them ready for new memories. Architectural details, such as handrails and balusters, fireplace mantles, and historic trim, are not easily replicated. The old adage is true, "they don't build them like they used to."

Most owners of older homes will face difficult decisions during the stewardship of their property. Proper maintenance and upkeep of historic homes has limitations. Building materials outlive their useful life span, styles evolve over time and changing family dynamics can necessitate owners to reconfigure and/or expand spaces. When homeowners face these decisions, it is imperative to hire professionals who understand the complexity of working within an existing structure.

# A NEW FUTURE FOR OLD HOMES

Improving an old home is more than a financial investment—it's a meaningful experience and an opportunity to preserve a piece of history. Whether you take a hands-on approach or partner with a builder, the process fosters a deeper connection to your home, leaving you with lasting memories and a sense of accomplishment that endures.

When you're ready to begin, it's essential to build a team of professionals with expertise in these technically complex projects.

Red Barn Architecture was born out of Ryan and Caitlin's own multi-year home transformation. We know firsthand the challenges and rewards of this journey, and we've had the privilege of guiding many clients through similar projects.



A modest addition created space for a new kitchen and primary suite above in Manchester-by-the-Sea.



## THE THREE Rs

There are three basic classifications for working on older homes: remodel, renovation, or restoration.

#### Remodel

A remodel is the most intense of the three options. It is more invasive and affects the configuration of the spaces within the home and, often, the structure. Because of the magnitude of changes, historical components may need to be altered or demolished.

#### Renovation

A renovation is less intrusive than a remodel. In a renovation, we typically update spaces without significant changes to wall placement. Historic components can be replaced, but an exact replication of the original is not required.

#### Restoration

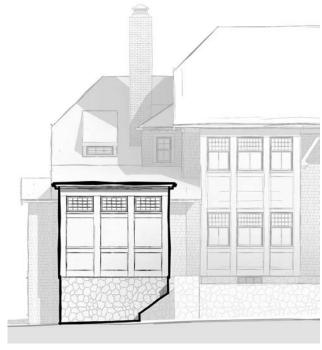
Restoration is the most historically accurate and sensitive way to update your home. In this option, materials and components are refurbished, and new materials are selected and crafted to match the original precisely. If your passion is to save the historic details and recreate the spaces to their original splendor, then restoration is for you. If your property is of significant historical value, restoration may be a requirement.

#### OTHER OPTIONS + OPPORTUNITIES

### **Additions**

If your project requirements include more space for a growing family, adding onto an older home might be your best solution. For historic homes, appropriate scale and massing of additions must be considered. It is best to avoid changes that drastically alter the style of the home or roof line. Additions to old homes require careful study of the structural components to understand what is possible and what upgrades need to be made to accommodate these drastic alterations.

For this Eclectic Revival project, we designed a small addition that complements the existing window and stucco panel scheme, creating a first-floor primary suite with a walk-in closet and spacious bathroom. The stucco panels offer both privacy and a seamless connection to the home's historic character.





# **Complete Transformations**

In some situations, your home might be best suited for a complete transformation, whether through an extensive redesign or demolition. This path is often chosen due to factors such as significant structural deficiencies, specific programmatic needs, aesthetic goals, or a cost-benefit analysis that favors starting anew. When beginning from scratch with a custom design, there are many creative ways to honor the original structure, depending on your overall project goals.

# APPROACHING YOUR PROJECT: IT STARTS WITH AN ASSESSMENT

Any substantial renovation or addition project begins with an **Assessment**. The building's age and style need to be established to help guide the design process. A visual examination of the exterior features, including trim details, windows, doors, roofing and siding treatments, prompts suggestions for exterior updates. Plumbing, electrical and heating components should be inspected for safety issues and a cost benefit analysis should be prepared for repair work versus full replacement. This information is captured as part of our Architectural Survey. We'll come to your home to measure, document, and photograph all of its features inside and out. When warranted, we will bring in our Architectural Historian and incorporate their feedback and observations in the assessment. This information will become the basis of our drawing set that we will use throughout the rest of our design and planning process. Getting the details right at this stage is critical for the rest of our work together.

Original French Doors, complete with wavy glass were restored along with original hardware.

#### CODE CONSIDERATIONS: THE RULES AND REGULATIONS

In our **Pre-Design** phase, we perform an extensive code study to understand what is possible for your property. This step is critical for old and historic homes. Often, septic systems are too old and need replacement. The North Shore includes many dense downtown areas and zoning bylaw limitations are in play. Architectural Preservation Districts (or Historic Districts) have strict guidelines that govern design style and material selection for your project. A clear understanding of what is possible is necessary before we begin.

Energy code requirements are becoming increasingly strict as the construction industry seeks to reduce its carbon footprint. The intersection of energy code compliance and historic renovation can be tricky to navigate. Some municipalities allow for historic buildings that meet certain criteria to avoid compliance with the Energy Code. These buildings must have significant historical value. In other cases, a less stringent set of requirements applies, and full conformity to the Energy Code is optional.

Lastly, full compliance with the Energy Code is required in certain cases, regardless of the home's age. This applies when the scope of work exceeds specific square footage thresholds. Full compliance with the energy code will require a critical decision on insulation. Choices include insulating from the outside of the building, which requires removal and replacement of the siding. Insulation can be added from the inside, which requires removing finish materials from the wall.



The color palette of this kitchen took inspiration from a stained glass window original to the home. Delft-style tiles honor the home's Salem location and Its rich maritime history.

# SUSTAINABILITY CONSIDERATIONS

Building operations and construction activity account for a significant 37% of global greenhouse gas emissions, making it essential for architects and contractors to adopt more planet-friendly approaches in their work. At Red Barn Architecture, we are deeply committed to sustainability and believe that it can be seamlessly integrated into any project—especially when renovating older homes. Our goal is to preserve and enhance the character and functionality of your home while minimizing environmental impact.

The greenest project is often the one that reuses and revitalizes existing structures. Older homes are rich in embodied energy—the total energy that was consumed during the construction process, from the extraction of raw materials to their transport and assembly. When we work with older homes, we aim to keep this embodied energy in place, avoiding the unnecessary carbon emissions that come from demolition, waste, and the need for new materials. By repurposing and upgrading what's already there, we not only honor the architectural heritage of your property but also contribute to reducing your project's carbon footprint.



A process shot of a deep-energy retrofit of a historic house in Newburyport.

# VALUE BASED DESIGN

Designing your home is a deeply personal and meaningful experience. At Red Barn, our approach goes far beyond mere aesthetics and functionality—we focus on understanding the unique dynamics of your family, your lifestyle, and your core values. We believe that these insights are the foundation for creating living spaces that truly support family health, happiness, and success.

From the very beginning, we guide you through a comprehensive Values Exercise, designed to help you articulate the core values that are most important to your household. This process helps us get to know you better, allowing us to understand how your family functions and lives day-to-day. The insights we gain from this exercise enable us to deliver a design that is highly personalized and tailored to your needs and preferences.

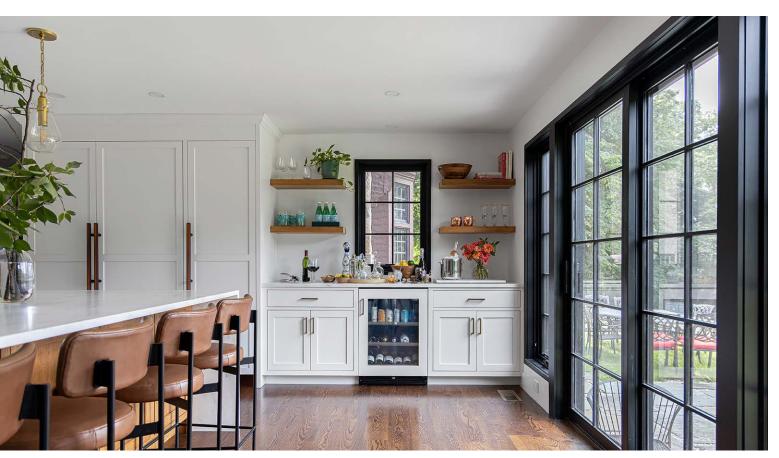
Your values become our compass in making critical design decisions, tradeoffs, and prioritizations throughout the entire process. By embedding what matters most to you into every aspect of our design, we create homes that not only look beautiful but also align perfectly with your aspirations, routines, and long-term goals. Our goal is to design spaces that reflect who you are and help you thrive.

Sustainability doesn't mean compromising on your project goals or aesthetic vision. At Red Barn, we work with clients to find solutions that balance preservation, functionality, and environmental responsibility. Whether it's improving insulation, upgrading to energy-efficient windows, or introducing renewable energy sources like solar panels, we guide you through the choices that will make your home more efficient without sacrificing its character.

Incorporating sustainable materials into your renovation is another key step. From reclaimed wood and low-VOC paints to eco-friendly insulation, we carefully select materials that align with both your design preferences and sustainability objectives. Additionally, we recommend energy-efficient systems, like highericiency HVAC units or radiant floor heating, which not only reduce energy consumption but also lower operating costs over time.

Water conservation can also be a priority, whether through low-flow fixtures or innovative stormwater management solutions that help reduce water use and runoff. And when it comes to lighting, natural daylighting solutions—like strategically placed windows, skylights, or light shelves—can drastically reduce the need for artificial lighting during the day, making the most of what nature offers.

Your project and sustainability goals don't have to conflict; in fact, they can complement one another beautifully. With our expertise, we'll help guide you through decisions that not only breathe new life into your home but also preserve resources for the future. In the end, a well-designed, sustainably renovated older home isn't just good for you—it's good for the planet too.



Expansive 12-foot French Doors flood a previously dark kitchen of this 1926 Tudor-style home.



Our team's experience with sustainable practices ensures that we stay at the forefront of environmentally conscious construction techniques, whether that means incorporating renewable energy sources, using energy-efficient systems, or choosing materials with a lower environmental impact. We work within your budget and vision to achieve a renovation that enhances your home's value, meets your lifestyle needs, and promotes sustainability. At Red Barn, we understand that each decision can have a lasting impact, and we're here to make sure those choices are as green as possible.

# **Municipal Oversight**

States and towns have established several layers of oversight to guide homeowners through historic projects.
Local municipalities designate "Historic Districts," requiring a review process for exterior changes. States, including Massachusetts, also identify historically significant properties, and your home may carry such a designation. At the federal level, the National Park Service oversees the National Register of Historic Places. Each entity provides guidelines for home improvements, typically focused on exterior features, with interior oversight being rare.

Some homes may also have a Historic Preservation Restriction attached to their deeds. It's essential to understand any such limitations before beginning design work.

Original woodwork served as a jumping off point for the kitchen design in this 1920s Tudor Revival.

## MATERIAL SELECTION AND PROJECT DESIGN

With the project parameters and goals set, we will begin to design the changes to your home. Depending upon the level of project, material selection will be key to honoring the home's historic character. At Red Barn, we prioritize the use of natural materials and elements that reflect the home's unique details and heritage.

Window and door selection are paramount to defining a home's character and curb appeal. The look of the window's muntin bars (or grille bars for a more contemporary window) are a defining feature. Their profile and pattern give the home a distinctive style and soul. We have options today to achieve fully authentic divided-lite muntins or simulated divided-lite grilles. Wood exterior windows are an available option, as are clad exterior windows for easier maintenance.

While natural wood materials come with greater upfront costs and more maintenance costs over the life of your home, there is no synthetic or composite material that can replace the authenticity of natural wood. If a truly accurate historic façade is your goal, then you will want to make the investment in authentic materials.



Salvaged leaded glass from the original 1920s Butler's Pantry was repurposed in this dry bar.



# CONSTRUCTION: WHAT TO EXPECT

# A Process of Discovery

Our planning and design process can only anticipate so many issues. Architects and contractors do not have x-ray vision. When we open up the walls of your historic home, we will find something unexpected. Sometimes, those unexpected things are fun: old letters, newspaper clippings or long-lost silverware. Sometimes, those unexpected things are not fun; wood rot, shoddy work, or previous DIY projects gone wrong. We recommend a contingency line item in your construction budget for these occurrences. We advise a contingency of 15% on top of your initial construction budget in the beginning phases of planning or design. As we move through the design process and study things more carefully, that contingency may be slightly reduced. It cannot be eliminated, as something will undoubtedly come up.

# **Obstructions or Opportunities?**

When issues arise, Red Barn is there to help troubleshoot solutions. Our Construction Administration services provide the support necessary to keep projects running on time and on budget. Interpreting the Construction Documents, providing solutions for tricky plumbing situations and sizing beams to repair rotted conditions are some of the different ways we assist our clients and the contractor during construction. We believe the Construction Administration phase is crucial to the project's success.

Clean-lined interiors pop within the shell of a historic farmhouse in Ipswich.

#### **Construction Timeline**

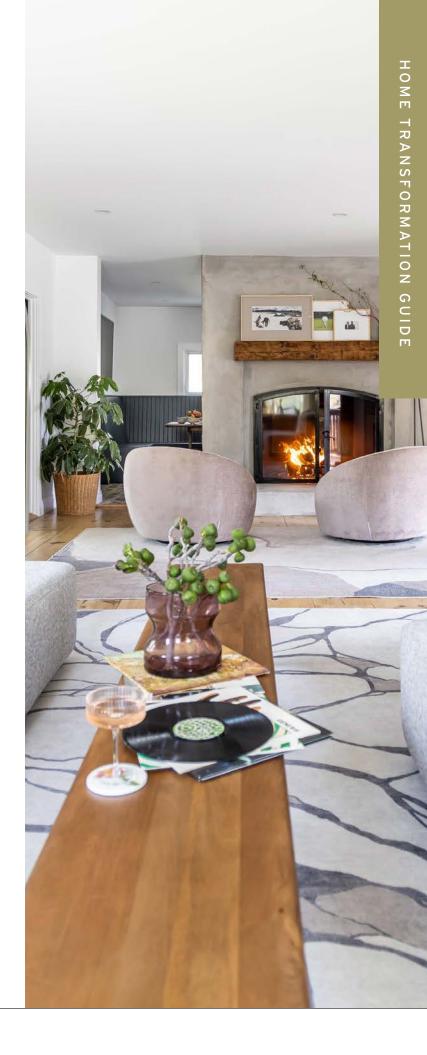
Construction within an existing building can be more complicated than ground-up new construction. Coordinating subcontractors within the existing building's limited space leads to a natural sequencing of work that could otherwise be overlapped in new construction. Spaces must be demolished, rebuilt and prepped for new components, such as windows or kitchen cabinets. Those elements cannot be ordered until we have the space rebuilt. This all leads to a longer timeline for renovation work.

Depending on the complexity and scale of your project, plan for 8 to 12 months for a full gut rehabilitation of your home. Implementing new HVAC, electrical and plumbing systems into a historic home takes a team approach. An open and ongoing collaboration between owner, architect and contractor is necessary for a successful project! We encourage all clients to make arrangements to live off site during construction and can advise on rental budgets.

# Creating Your Forever Home

Embarking on a construction project is an exciting endeavor that requires thoughtful planning. Turning a fixer-upper into a home that reflects your personal lifestyle and values does not happen overnight. Careful consideration is necessary from the initial assessment of the property, through the design of the project and throughout construction. The team at Red Barn Architecture has the experience and expertise to guide you through this undertaking from start to end.

An existing fireplace was sheathed in stucco and converted to gas for improved aesthetics and convenience.



### Resources

- A Guide to Style, Color, and Architectural Periods by Historic New England and California Paints
- Marvin Divided Light Windows
- Historic New England Tips for Homeowners
- The Old-House Journal Guide to Restoration by Patricia Poore
- Renovating Old Houses: Bringing New Life to Vintage Homes by George Nash
- Historic Preservation: An Introduction to Its History, Principles, and Practice by Norman Tyler, Ted J. Ligibel, and Ilene R. Tyler



Here we transformed a sleeping porch into a bathroom to create a primary suite with views of Marblehead Harbor.

We reworked a former back kitchen, which was dark and uninviting, into a eat-in kitchen.

