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Budget Breakdown: This \$851K Riverside Home Is a Case Study in Smart, Sustainable Living

Combining creative nous with careful planning, architect Mark Lawton creates a net-zero home inspired by the typology of a fisherman's shack.

Text by

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"The arrival sequence became the genesis for the design," says architect Mark Lawton of the net-zero home he brought to life on the banks of the Westport River. "To get there, one must travel down a short, heavily wooded dirt road. After a sharp bend, a framed vista of the river explodes before you."

This hidden cove was formerly home to a fisherman's shack and an oyster bed—and although it looks idyllic, the site posed a considerable set of constraints, including a modest and unmodifiable footprint and a closely situated neighboring property. "All of my client's program had to fit into a simple rectangle without a high roofline, which would block the neighbor's water view," Lawton notes. The property is also located in a high-impact flood zone, with the potential for surging waters to wash up the banks.

\$80,000 Site Prep	\$80,000 Foundation	\$80,000 Electrical
\$30,000 Plumbing	\$100,000 Exterior Siding	\$50,000 Framing
\$15,000 Roofing	\$60,000 Cabinets & Counters	\$9,000 Appliances
\$30,000 Interior Millwork	\$50,000 Heating & Cooling	\$50,000 Solar Panels
\$12,000 Water Hookup & Well	\$10,000 Fireplace	\$35,000 Windows & Doors
\$30,000 Drywall & Plaster	\$30,000 Painting	\$80,000 Wood Floors & Tile
\$20,000 Insulation		
Grand Total: \$851,000		



Mark Lawton Architecture constructed this high-functioning home on the banks of the Westport River for a total of \$851,000.

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Mark Lawton Architecture carefully selected materials for their durability and patina. The slatted western red cedar facade provides privacy while referencing the tall trees fringing the site.

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The home's three levels open toward the Westport River. Foundation costs accounting for the site's unique flood-zone challenges came to \$80K, while the exterior siding cost \$100K.

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Against this backdrop, the clients, Ken and Korina, came to Lawton with an ambitious brief. They sought a minimalist residence that would merge smart home technology with serious environmental credentials and serve as a multipurpose idyll from which to work, entertain, and recuperate.

"Ken is an out-and-out technophile, and he was convinced that a smart but practical approach to the design could be spectacular and sustainable," Lawton says. "Korina was also very insistent that we adopt a sustainable approach with respect to materials and the home's long-term environmental impact."

The technically intensive solutions required to accommodate the challenging site naturally impacted the project budget. "The foundation in particular required intense engineering and precise concrete work," explains Lawton. "My team had to streamline the design to its essence in order to reduce cost. Every square inch was scrutinized. Was it needed, could it be smaller, could it be combined with another space?"



An expansive deck stretches a total of 638 square feet around the side of the home.

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Wood continues to set the tone inside. The home's white oak flooring and tile cost \$80K, while the custom interior millwork cost \$30K.

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A view of the south-facing, open-plan living area flooded with a gentle mid-afternoon light.

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Every square foot of the home has a purpose—including the hidden bar integrated into the living area. It's one of Ken and Korina's favorite elements.

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Icy blue tiling in the generously proportioned bathroom nods to the glaciers and fjords associated with Korina's Norwegian heritage.

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To that end, the home embraces both the advantages and drawbacks of its position. The solid, slatted wood facade references the nearby trees, and the interior is bright and breezy in its embrace of the natural environment. The kitchen, dining, and living spaces combine in a lofty, open plan on the main floor, fringed by an oversized cantilevered deck. The upper floor encompasses guest rooms, a generous home office, and an additional living area that leads out to a veranda with sweeping views of the water.

Down below, a flood plain level provides extra space for riverside leisure activities, and it's framed with sturdy glass doors that can open to allow water to flow through when the river rises. "The code stipulates that flood waters must be able to enter and exit below the house without causing damage to the house structure," explains Lawton.

"The conventional practice is to construct walls that 'break away' from wave action," Says Lawton. "We decided to use this to our advantage and make this ground floor a usable space with amazing views of the river. The solution was to install glass garage doors that can be opened in a flood event. Just open all the garage doors, and the waves can come in and exit—but 99.9% of the time, you can use that space down there."



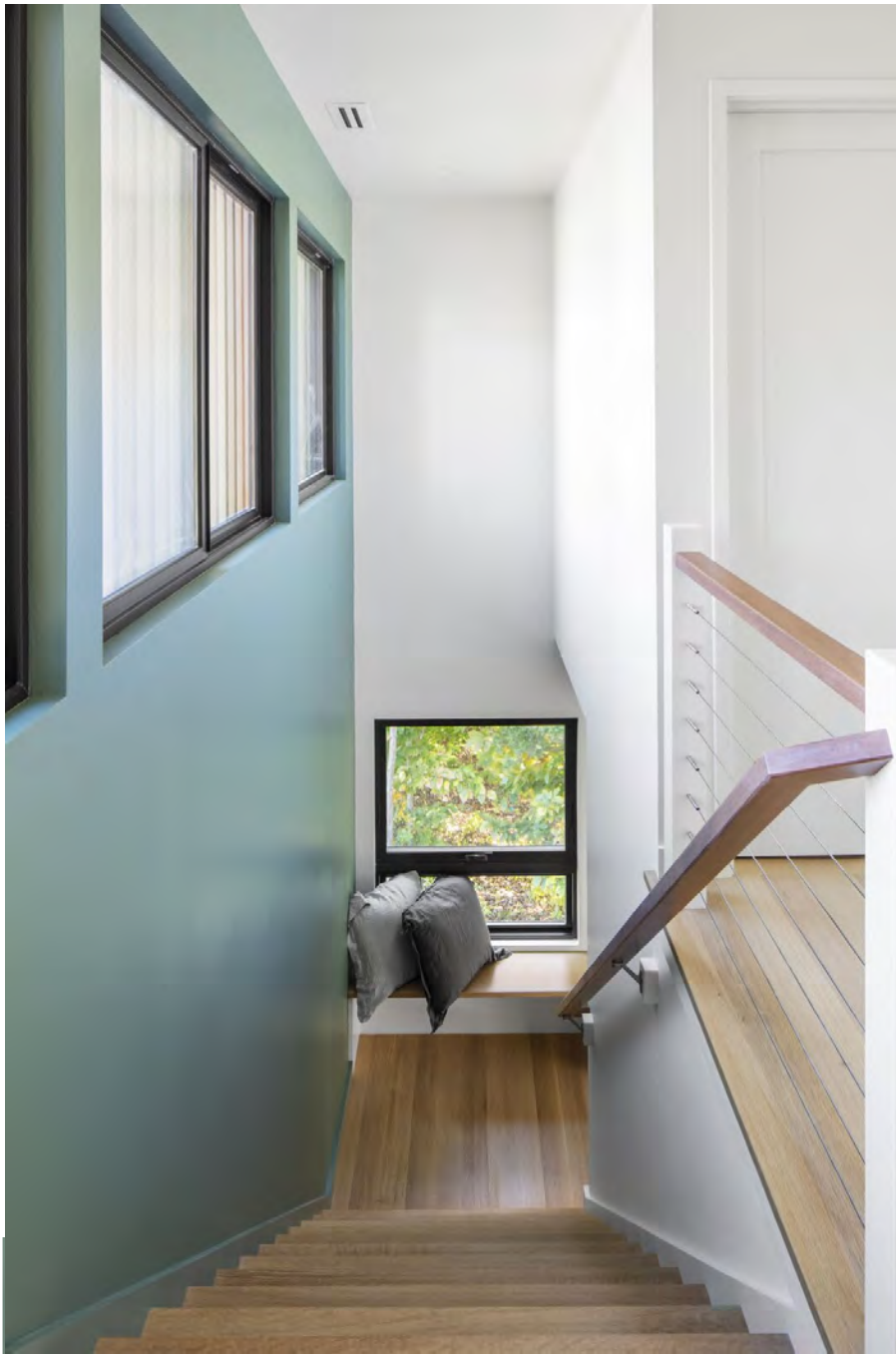
A subtle palette allows the warm, natural tones of the wooden furniture to come to the fore.

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A built-in fireplace turns up the cozy factor in the winter months. Smart and efficient heating and cooling systems are integrated throughout, at a cost of \$50K.

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The highly efficient floor plan leaves no corner untouched in terms of functionality. Shown here is a cozy window nook at the base of the stairs.

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Above and beyond the need to accommodate rising tides, the home incorporates a wide range of sustainable building strategies. It's entirely powered by a rooftop solar array, which also runs an electric car charging station. "So far, we think we will be at zero energy after the first year—and that includes running an electric car," the clients say.



Large sliding doors optimize indoor/outdoor flow on the home's upper level. The total cost of windows and doors amounted to \$30K.

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Late afternoon sun illuminates the exterior of the home, which sits in harmony with its tranquil surroundings.

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Large, south-facing patio doors provide cross ventilation, and the home's high-efficiency lighting, appliances, and heating system can be monitored with a smartphone app, and

optimized via voice commands. "We're basically trying to get this thing to function like an iPhone," says Lawton.



The home's clean, minimalist design language prioritizes straight lines. The slatted wooden cladding ensures both weather resistance and visual consistency.

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In response to the clients' desire for a minimalist home, the exterior and interior design language is pared down and realized with natural materials that age well. The exterior slats are made from durable western red cedar, while the white oak flooring and blue ceramic tiles nod to Korina's Norwegian heritage.



Nestled into a favorable nook on the riverbank, the house is oriented to provide privacy and peace.

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"The interior is sparse yet warm, compact yet not cramped, and every square foot is a used and loved space," say Ken and Korina. "Our home is a haven of relaxation. There's an innate atmosphere of peace, nature, and connection to the environment that puts a smile on our face every day." To Lawton, that's the most rewarding feedback he could receive.



The home's proximity to the river necessitated extensive site preparation to comply with flood zone regulations, to the tune of \$80K.

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Floor Plan of Westport River Retreat by Mark Lawton Architecture

Project Credits:

Architect of Record: [Mark Lawton Architecture](#)

Builder/General Contractor: [R.P. Valois and Company](#)

Structural Engineer: [Choubah Engineering Group PC](#)

Civil Engineer: [Civil Engineering Concepts, Inc.](#)

Lighting Design: [Mark Lawton Architecture](#)

Interior Design: [Mark Lawton Architecture and client](#)

Cabinetry Design/Installation: [Mark Lawton Architecture and Kitchen Views](#)

Photographer: [Design Imaging Studios / @designimaging](#)