GREEN ARCHITECTURE | MECHANICAL DESIGN | ENERGY CONSULTING

617.720.5002 | ZEROENERGY.COM

BOSTON | CAPE COD | BROOKLYN
Innovative design embracing energy, environment, and lifestyle.

ZeroEnergy Design (ZED) is an architectural design and energy consulting firm specializing in new construction and major renovations for homes and buildings. Our commitment to innovative and ecologically sensible design is reflected in our multidisciplinary knowledgebase, which spans architecture, mechanical engineering and financial analysis. With this shared expertise, ZED originates designs that are tailored to a client's lifestyle, environmental ideology, and unique sense of style.
Integrated Design Service

The breadth of ZED services exceeds those of most firms by offering true integrated design, including full architecture, photorealistic renderings through the design process, engineering of the mechanical systems, sustainability consulting, energy modeling with cost analysis, and green certifications. Though design still leads, our firm’s unique composition of disciplines work together to deliver comprehensive client service that:

- Translates vision and inspiration into buildable construction documents
- Creatively solves and accommodating the project specific design challenges
- Advocates for you during construction
- Manages other design consultants
- Advises you on builder selection
- Administers the construction contract

We're here to serve you; our goal is to make your design and construction process as smooth as possible.
Guiding Principles

SIMPLICITY | More is not better, and with the resolution of details, simplicity becomes the ultimate in sophistication.

SUSTAINABILITY | Essential for every design, incorporating clear measures to address energy, water, air, materials and certification.

HEALTH | Significant time is spent indoors, therefore environments created with carefully selected materials and ample fresh air become paramount.

INFORMED DESIGN | Inspired by clients and the surrounding landscape, the resulting architecture is always uniquely informed by both subject and place.
Sustainability

ENERGY | ZED is committed to design that uses at least 50% less energy than building code requires, in pursuit of energy independence. The firm’s namesake and expertise is in designing to the zero energy performance level. We approach this goal strategically first by reducing energy losses through efficient design, then specifying efficient energy consuming equipment, and finally selecting efficient means of energy production.

MATERIALS AND DURABILITY | Buildings have lifetimes of greater than 40 years. Their construction and renovation generate tons of waste as old products are replaced. ZED specifies materials and finishes that enhance the feel of the space and stand the test of time. We keep the entire lifecycle of the home or building in mind, together with how materials are sourced, the manufacturing process, how far they are transported, whether they are toxic, and how long they last.
Sustainability (continued)

WATER AND AIR QUALITY | ZED designs for less water consumption without affecting lifestyle. Long gone are low flow fixtures with low performance; today's manufacturers produce beautiful water efficient high performance fixtures. Exceptional indoor air quality is addressed by specifying non-toxic materials and ensuring adequate ventilation and filtration of fresh air.

CERTIFICATION | ZED designs to the highest of standards. Third party certification through ENERGY STAR, LEED, EPA, Passive House Institute, and others provide verification that your home or building is both designed and built to the standards we set out. These programs also legitimize the green features and energy performance as well as help increase resale value & rental rates.
Client Working Relationship

DISTILLING DESIRES | Some clients arrive with preconceived notions, while others aren’t sure what they want. Either way, we’ll interview you and develop different concepts to creatively reflect tastes, values, and personality.

DEVELOP STRATEGIES | Creative troubleshooting of project challenges is the norm, be they aesthetic, historic, permit related, a use requirement, or associated with the site.

TARGETING THE PROGRAM | Efficiently addressing the required functional and operational uses means exceptional utility, less space, lower construction cost, no redesign, and a reduced amount of building to heat and cool.

INSPIRED DESIGN | Inspiration comes from many sources: favorite objects, experiences, culture, and life. When incorporated into a design, the result yields satisfaction both intellectually and emotionally.

OCCUPANCY SCENARIOS:
Areas not in use can be decommissioned to conserve energy.
Client Working Relationship (continued)

INFORMED DECISIONS | Our energy recommendations focus on objective metrics so you can make a smart, data based decision. Cost effectiveness can be measured according to cost of ownership, net present value, internal rate of return, return on investment and other metrics.

VISUALIZATION | Most people have difficulty envisioning a room and its feeling from a 2D floor plan. ZED’s 3D visualization greatly enhances our ability to communicate a design concept, finish selection, or spatial layout, early in its creative infancy.

STYLISTIC BALANCE | Cohesive interior finish palettes, fixtures, and accessories combine to create a style, craft a distinct feel, and establish a true sense of place. Simplicity ultimately tends to yield sophistication.

[Visualizations of initial and finalized design concepts]
Process

Our process steps you forward into your new home or building on target and on schedule.

SCHEMATIC DESIGN  |  A “get to know you” meeting helps us understand your aesthetic tastes, functional desires, and spatial requirements. We encourage you to assemble a journal collection of any references that inspire you, whether magazine cutouts, photos, illustrations, drawings, or textual descriptions. Further in this phase, ZED will develop initial renderings and concepts for you to choose from. These rough schematics will provide the initial direction for the design.

DESIGN DEVELOPMENT  |  Once a concept is selected, it is refined with several additional discussions around the nuances of how you plan to live in the space. We’ll discuss built-in locations, interior finishes, window locations and special spaces for any furniture pieces or other items that you already own or intend to purchase.
MECHANICAL DESIGN  |  Our integrated design process includes energy modeling, HVAC system sizing and design of the distribution systems. These design components ensure indoor comfort through healthy air quality and thermal control.

RENEWABLES DECISION MAKING  |  Interested in renewables but not sure where to start? ZED can help you sort through the clutter. We can advise you on the different renewable energy systems and even quantify the impact different systems will have on operating cost. This cost benefit analysis will help you determine which systems fit your individual tolerance for operating cost/benefit and performance.
CONSTRUCTION DOCUMENTS | Once the design component is finalized, ZED will draft and assemble construction documents that your contractor will use. This is a detailed set of documents that includes building dimensions, wall sections, construction details, window and material schedules, mechanical, electrical, and plumbing specifications and schematics, mechanical system sizing, and other important particulars about the building.

CONSTRUCTION ADMINISTRATION | Our job doesn’t end when the plans are handed to the contractor. We are committed to seeing your project through construction, will answer contractor questions, and act as your advocate to ensure that the building that is built is the one that was designed.
Our Name

We take our name from the industry term zero energy (or zero-net energy), which is defined as a building that creates as much energy as it uses. A zero energy building is the result of a multi-disciplined effort and appropriately symbolizes our integrated design philosophy and approach. While the achievement of zero energy is feasible for some clients, ZED is committed to designing homes and buildings that use at least 50% less energy than building code requires, in pursuit of energy independence.

Firm’s Qualifications

AFFILIATIONS
American Institute of Architects (AIA)
Passive House Institute (PHIUS)
US Green Building Council (USGBC)
Energy Star Partner
National Council of Arch Registration Boards (NCARB)
Boston Society of Architects
EPA Indoor airPLUS Partner
Enterprise Green Communities
Massachusetts Zero Net Energy Buildings Task Force
Building Performance Institute

ENERGY MODELING
Passive House Planning Package (PHPP)
e-Quest (DOE-2)
Targeted Residential Energy Analysis Tool (TREAT)
Residential Energy Modeling (REM/rate)

STAFF QUALIFICATIONS/CERTIFICATIONS
Registered Architect
Mechanical Designer
Certified Passive House Consultants
LEED-Accredited Professionals
LEED-H Green Rater
RESNET Home Energy Rater (HERS)
Green Communities Technical Assistance Provider
NAHB Green Building Verifier
MA Construction Supervisor
BPI Building Analyst

HYGROTHERMAL MODELING
WUFI (Wärme Und Feuchte Instationär)
THERM (Building Heat-Transfer Modeling)
Engagement of Services

We are inspired by the surrounding landscape, our collaboration with the client, and the challenge of making energy efficiency beautiful, which results in an architecture that is uniquely informed by its place, subject and ideals. Our multidisciplinary team of architects, mechanical engineers and finance professionals takes a sensible and calculated approach to sustainability in each of our design projects.

CONTACT ADAM PRINCE TO COMMISSION YOUR PROJECT | 617.720.5002 x 102