



ALTURA ARCHITECTS

Sustainable Action Plan

2025

Philosophy

OUR FIRM'S VALUES HAVE BEEN ROOTED
IN SUSTAINABILITY SINCE 1985

We are trusted experts in guiding our clients
to sustainable outcomes.

Through the building process, we help
our clients and community make informed
decisions and support them in overcoming
obstacles to achieving their visions.

**We measure our sustainability in three
interconnected ways**

PROJECTS: Our Work

ADVOCACY: Our Community

OPERATIONS: Our Business



Projects

HOW AND WHERE WE BUILD ARE TWO OF THE MOST IMPORTANT INFLUENCES ON OUR FUTURE & NATURAL ENVIRONMENT.

We design projects using all available tools, from traditional to leading-edge design techniques, resulting in efficient, beautiful structures. We adhere to the [Framework for Design Excellence](#), AIA's principles for shaping a resilient built environment.

- 87% of new residences since 2019 have received EnergyStar certification
- Energy performance data is monitored after construction; during building use
- Every project is modeled and benchmarked for energy efficiency
- Our energy performance benchmark is HERS (Home Energy Rating System) 50. We monitor this throughout the design process to ensure that this standard is being met, and confirm building performance at the end of construction
- We advocate for adaptive re-use, urban infill, and transit-oriented projects
- We design our buildings with 100+ year lifespan in mind. Materials are chosen for timelessness and durability, ensuring our designs remain enjoyable for the lifetime of the building

All projects are designed to at least **HERS 50**. This indicates 50% improved energy efficiency above code requirements.



Jones Cove Farmhouse, HERS rating of 50
Altura Architects | Sustainability Action Plan

Advocacy

WE BELIEVE WE HAVE A RESPONSIBILITY TO CREATE A POSITIVE AND LASTING IMPACT IN OUR COMMUNITY.

- Altura Architects donates 8% of our annual net profits to local non-profit organizations
- Since 2020, we have donated over \$102,000 to 60 nonprofit partners
- We provide pro bono design work to non-profits that serve Western North Carolina
- We are helping our community rebuild after Hurricane Helene by donating design services through the Appalachian Design Center and providing pro bono work to help past clients rebuild
- We encourage our staff to donate their time to causes they believe in, including:
 - Asheville City Council's Sustainable Advisory Committee
 - Statewide task force for NC Green Built Homes Program
 - Green Built Alliance
 - Mountain True
 - AIA Asheville and AIA NC Committees on the Environment
 - NC chapter of the National Organization for Minority Architects
 - Annual Design with Climate Symposium

We have begun the certification process to become an International Living Future Institute **JUST Organization**.



Operations

OUR CULTURE OF ENVIRONMENTAL STEWARDSHIP STARTS WITHIN OUR OFFICE WALLS

In 2024 we generated 90% of our used energy from our 21kW photovoltaic array on the roof of our building.

- Our studio, located in a 100-year-old building in downtown Asheville, uses large windows and an open design to maximize natural light
- Office thermostats are set to 75 when cooling, and 68 when heating
- Our preferred purchasing plan prioritizes products with a small environmental footprint:
 - All copy and plotter paper is 100% recycled or Green Seal Certified
 - 100% of cleansers and disinfectants are Green Seal Certified
 - Beverages are offered to clients in glasses (no single-use plastic)
 - Lunch and learn providers are provided with a list of locally-owned caterers, and instructed to exclude disposable plates, flatware, and cups
- A comprehensive waste reduction policy includes workstation recycling collection, coordinating with neighboring businesses to collect compost and hard-to-recycle items for responsible disposal

90% of our studio's energy is provided by our 21kW photovoltaic array



PV Array on our building rooftop
Altura Architects | Sustainability Action Plan

Our History

OUR STUDIO'S HISTORY PRIORITIZES ENVIRONMENTALLY RESPONSIBLE AND SUSTAINABLE DESIGN PRINCIPLES

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- 1985**
Founding of Samsel Architects (now Altura Architects)
 - 1987**
Samsel Architects moves into 60 Biltmore Avenue in downtown Asheville, after extensive renovations
 - 1993**
Start of US Green Building Council
 - 2000**
Samsel Architects co-founds WNC Green Building Council (now Green Built Alliance)
 - 2005**
Eco Dorm at Warren Wilson College earns LEED Platinum Certification
 - 2013**
Fontana Bridge Residence earns LEED Gold Certification
 - 2014**
Our office begins performing at Net Positive Energy, via on-site PV Panels
 - 2015**
Instituted our first draft Sustainability Statement
 - 2018**
Craven Gap Residence earns Net Zero certification from International Living Future Institute, it is the first ILFI certified structure in North Carolina
 - 2020**
Sustainability committee formed, conducting reviews and energy performance tracking across all projects
 - 2021**
Biltmore Forest Residence earns LEED Silver, it is the first LEED certified structure in Biltmore Forest, NC
 - 2022**
Samsel Architects rebrands to Altura Architects
 - 2024**
Altura Architects submits two residences to the USGBC for pending LEED-Gold certification

Our Future

Immediate Goals

(January 2025)

- Engage in proactive sustainability conversations with clients and trade partners. Set goals early, and guide clients toward specific sustainability aspirations.
- Collaborate with other design professionals to ensure that our practices remain at the leading edge of sustainability.
- Use the AIA Framework for Design Excellence metrics to determine areas of design focus for each project.
- Quarterly continuing education of staff on sustainability best practices, new techniques, and technology.
- Advocate for and design at least one LEED (or other) Certified project per year.
- Publish Sustainable Action Plan on our website and implement as internal guidance tool.

Takeaway

Design to nationally recognized sustainability standards.

Short-Term Goals

(18 months)

- Develop a stronger understanding of embodied carbon tracking, and use this to inform our designs. Select one project to use as a test for embodied carbon tracking during the design phase.
- Decrease the use of high-carbon products across all projects.
- Improve the median energy performance of our projects by 20%.
- Establish energy performance benchmarks and check-ins for commercial and renovation projects.
- Submit a project for USGBC's Best of LEED Award.

Takeaway

Improve median energy performance by 20%

Establish energy usage and embodied carbon benchmarks for all project types

Long-Term Goals

(3 years)

- Maintain relationships with our clients and their buildings to gain insight on operations, management, and performance. Use this information to inform future projects.
- Establish embodied carbon design goals, and endeavor to meet those goals.
- Improve the median energy performance of our projects by 40%.
- Submit a project for COTE Awards.
- Update Sustainable Action Plan every 3 years, with goals aligning more closely with 2030 Commitment.
- Submit a project for USGBC's Best of LEED Award.

Takeaway

Improve median energy performance by 40%

Submit for National COTE Award

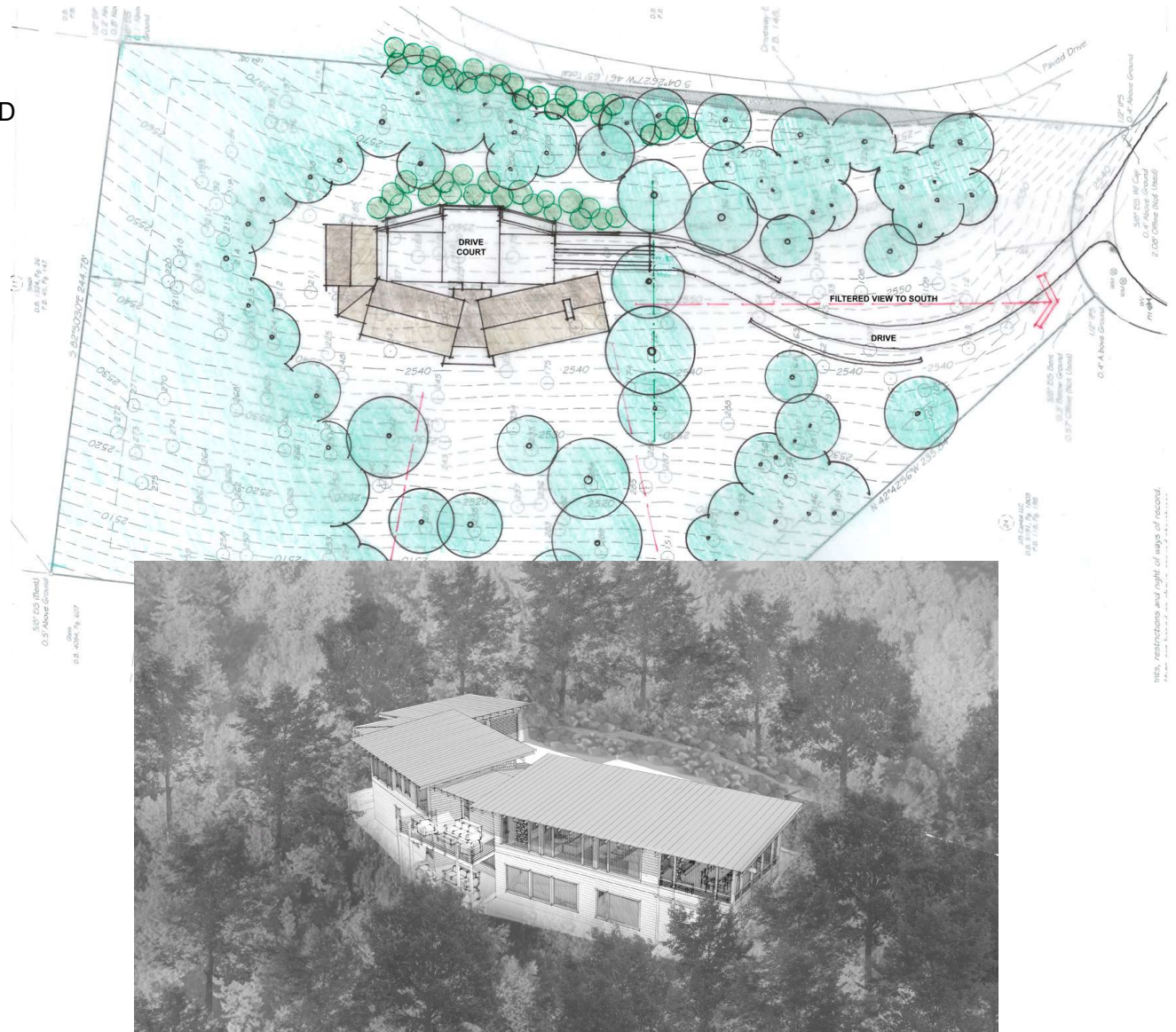
Project Sustainability Requirements

Predesign

- Gauge clients' interest in above-and-beyond technologies and techniques, and use this information to advance the project's sustainable goals. Present LEED and other certifications as a value-add
- Select 3 Framework for Design Excellence measures to focus on. These will be touchstones of the sustainability reviews moving forward
- Present sustainable concepts to clients as valuable - lower energy bills and improved indoor and outdoor air quality are the tangible benefits
- Compare square footage expectations against in-house goal of 3,400 sq.ft. for single-family residences

Schematic Design

- Employ passive design principles: site-responsive location and orientation, massing, and overhangs. Conduct sun study to confirm sufficient shading
- Keep overall window-to-wall ratio within in-house goal of 18% or less. For view-centric houses that require significant glazing, goal is 22%



Project Sustainability Requirements

Design Development & Construction Documents

- Project Manual or Drawing Set includes requirements for Energy Star, which necessitates a preliminary HERS. Work with energy modeler to achieve HERS 50 or below.
- Specify triple-pane U-18 or double-pane U-26 or better if fenestration ratio cannot be brought below 22% centric houses that require significant glazing. The goal is 22%.
- High-Performance Detailing: smart framing (19.2 o.c. minimum), continuous exterior insulation, prescriptive code-required roof insulation, penetration minimization, insulated headers, slab perimeter insulation.
- Electrification: electric fireplace, HVAC without gas backup, induction cooktop.
- High-Performance Systems: geothermal (or min. 18 SEER heat pump if geothermal is not possible), photovoltaics, heat pump water heater, ERV, on-demand recirculation system for hot water.
- Include pricing for solar array in Design Development level pricing.

Construction Administration & Post-Construction

- Preconstruction meeting: discuss Energy Star, HERO program, and possible LEED or other certifications
- Review submittal substitutions to ensure sustainable qualities are comparable to original specifications
- Verify on-site that best practices are being observed, such as advanced construction detailing, appropriate jack studs at openings
- Obtain final HERS rating & Energy Star certification confirmation. Confirm any additional certifications.
- Inform owners of 1-year check-in for building performance, note the date, and follow up to request energy, water, PV data after 1 year of occupancy



Final HERS Score by Year

Final HERS rating is a measurement of energy usage per constructed square foot. The lower the number, the better a home performs. Altura Architects' goal is to consistently lower the target, until all of our projects are at or near Net Zero.

