

heds

hays+ewing design studio



Bringing the Science of Green to the Art of Modern Living

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“I’m particularly interested in the public role that all buildings play. I believe that we architects should try to go beyond our basic obligations to the public, and our opportunities to do so are many.” – Cesar Pelli. As a world-renowned architect, this quote by Cesar Pelli carries tremendous weight. In today’s design and construction industry, green design has come to the forefront and is now considered vital to the health and comfort of building occupants, while improving building performance and seeking to reduce negative impacts on the environment. For one Charlottesville-based design team, green design is a passion and is integral to their profession. Since 2004, Hays + Ewing Design Studio has proven that enduring architecture springs from a deep understanding of the place, the needs of the project and the desires of the client merge with an integration of sustainable best practices.

Hays + Ewing Design Studio (HEDS), a women-owned architecture firm is recognized as a leader in the green design movement. Hays and Ewing’s work has been published in Architectural Record, Business Week, Dwell, EcoHome, USA Weekend, Custom Home and the Washington Post Home Magazine. Serving Virginia, Maryland, the DC area and the Carolinas with a practice that includes projects across the US, Canada and Europe, the firm has fifty years of collective experience. Founded by Christopher Hays and Allison Ewing, HEDS has a

global architectural pedigree, with both principals having lived and worked in Europe, Asia as well as the United States. Chris received his graduate degree from the Yale University Graduate School of Architecture, and is a Fulbright Scholar with research on the Venice urban network. Working as Design Director and Partner at William McDonough + Partners for 11 years, and prior to that with the well-renowned firms of Renzo Piano (Italy), GK Sekkei (Japan) and Cesar Pelli & Associates, Chris’ work encompasses large scale commercial projects, institutional, residential and planning worldwide. His expertise has also been imparted to others through teaching design studios at the University of Virginia School of Architecture, as well as serving as a panelist and lecturer to the U.S. Green Building Conference, the American Institute of Architects’ National Convention, Auburn University, and the PG&E Energy Center.

With architectural experience spanning twenty-five years and three continents, Allison Ewing also has extensive commercial, institutional, residential, and mixed-use projects at both large- and small-scale. Receiving her Masters in Architecture from Yale University Graduate School of Architecture, she was recipient of a Monbuscho Fellowship to Japan where she studied Japanese housing. Prior to forming HEDS, Allison was Partner at William McDonough + Partners, and design associate at the Italian firm of Renzo Piano Building Workshop, as well as the offices of Cesar Pelli & Associates and Mitchell Giurgola Architects. Ewing has spoken at many national and international events related to sustainable design.

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PROJECT PROFILE

Arlington Tree House

2000 Lexington leverages the fundamentals of sustainable and passive solar design in this modern renovation of a box car kit home. Zero-energy ready and third-party tested, the house achieved the highest number of points of any certified homes by the Arlington Green Home Choice program, a city-run organization whose goal is to help homeowners, builders and designers create homes that are better for people and the environment. The design belies the work involved in bringing the house up to Passivhaus standards; it seems effortlessly calm -- the living/dining/kitchen were relocated to a new third floor, the daylight and quiet HVAC system combine to create a surprisingly private and sublime experience on a corner lot in urban Arlington.

Using sun, in combination with relatively inexpensive drywall and stud framing, the nominee inserted a series of layered planes of framed drywall. When placed near windows, these “origami” incisions are animated by the changing contours of light over the course of the day.



PROJECT PROFILE

Haynes Furniture Showroom

HEDS was hired to update the existing 500 foot long Virginia Beach showroom façade for the Haynes Furniture Company. The Owners were looking for a modern facelift that incorporated green design strategies. The existing entry facade was dominated by a heavy canopy built in the 70's. HEDS replaced the dated façade with a large glass entrance, modern cornice and trellises to shade the primary expanse of glass. The trellises also create a dappled light to enliven the entry experience. Color and signage at the building corners add interest while promoting the furniture lines to passersby along the four-lane Virginia Beach Boulevard. The architects proposed a tall hedge across the length of the facade and tree islands filled with native species to soften the hardscape.

The architects aspired to create layers of value and saw an opportunity to contribute positively to "Saving the Bay." The Norfolk region is the endpoint of hundreds of waterways that flow into the Chesapeake Bay, a body of water designated by the Clean Water Act's "dirty waters" list. While the client was interested in improving the experience of the visitor to their showroom, the architects also saw an opportunity to help clean the water entering the Chesapeake Bay. Ewing proposed a strategy called Phytoremediation which incorporates plants to help detoxify the soil from heavy metals or minerals.

Additionally, the canopy brings scale and interest to the entry while shading the glass from penetrating solar rays and associated heat gain. The design transforms the car-oriented building and parking lot into a place that is people-oriented, filled with nature and daylight. The client is thrilled with the aesthetic appeal of the renovation and the ecological benefit in the filtration of the Chesapeake Bay.



PROJECT PROFILE

Linkhorn Bay House

A linear fountain strikes a line along the entry path, disappears below the house then reappears beyond as a pool. The fountain and pool provide a striking foreground view to the shoreline while a series of floating roofs engage with the horizon: the house speaks to the site, and calls forth the view.

The 16' tall great room with floor to ceiling glass appears to float above the pool and to offer views on three sides of the bay. A series of terraces further engage the views — a ground floor terrace wraps the living room while a second floor covered porch provides a birds-eye perspective.

The house is finely tuned to be extremely energy efficient and incorporates triple-pane windows among a host of strategies. With concrete and stone floors, the heat from the winter is stored in the floors and released throughout the day. During the summer, deep overhangs and trellises and louvers shade the house from the direct sun.



PROJECT PROFILE

Lewis & Clark Exploratory Center

HEDS led the winning team for the Lewis & Clark Exploratory Center design/build competition. Their design merges the building with the hillside at Darden Towe Park in Charlottesville. The roofscape emerges from the hillside, and transforms from a green roof into an occupiable roof terrace from which visitors can view the Rivanna River. From there, one is symbolically linked to the primary objective of the expedition; to find a water route from the Missouri River to the Pacific.

The architects' goal was to embed the sense of purpose, ambition and foresight from Lewis and Clark's explorations within the design of the Center itself. Ewing and Hays wanted to engage visitors in the journey of discovery while creating a building that follows the gentle rolling topography of the Darden Towe site.

Towards that end, the landscape and view are primary, the building becomes an extension of the hillside. The visitor arrives at the upper roof deck where an overlook provides a view to the Rivanna River. The roof terrace, structural masts and riverstone rill all make connections to the explorer's river journey.

The Lewis & Clark Exploratory Center provides opportunities to teach visitors about the environment and how to protect it. The design team has sought to enhance this potential by showcasing various sustainable strategies, such as rainwater harvesting, a vegetated green roof, daylighting, geothermal heating and sustainably -sourced materials. For example, the green roof retains rainwater, releases it back into the atmosphere without runoff into storm sewers, captures air-borne pollutants, releases oxygen, provides habitat, lowers roof temperature, reduces energy use by helping to moderate the building temperature and prolongs the life of the membrane roof. A rill filled with riverstone carries any remaining rainwater from the roof terrace and releases it into the riverstone basin beside the main entry.





PROJECT PROFILE

Mill Pond House

At the outset, the owner and architect agreed that this should be a zero-energy house*. The home was designed with careful consideration of the owner's many goals; seeking a unified expression that suits her lifestyle and world-ethic. No design choice was arbitrary.

The house is sited on a hilltop to take advantage of the best solar orientation, prevailing breezes and surrounding views. The roof form is the primary defining element; in one calligraphic gesture, it rises from the south up to a third floor gallery cascading down on the north to create a porte cochere. The roof shape reinforces the flow of interior spaces from the ground level to the observatory; facilitating a natural air flow from the lowest windows on the ground floor to the highest in the observatory. The house thus acts like a lung, inhaling and exhaling, breathing fresh air into the interior spaces.

The living, dining and kitchen area is suffused with daylight from the east, south and west. With views on all sides, the architect sought to unite the house with indoor and outdoor living. The southern terrace is used for dining, relaxing and witnessing the changes of flora and fauna from dawn to dusk. On the third floor there is a small observatory used for meditation, and an outdoor overlook to take advantage of the stunning views to the west.

Three large walls clad with dark grey cementitious panels span east to west with fins that provide shade for the openings on the east and west sides of the home. These walls also create a sequence of thresholds defining public and private spaces from the northern porte cochere to the southern terrace. A large battered wall clad with cedar on the west supports the cantilevered overlook. The house orientation and roof shape are optimized for an 8 kW array of photovoltaic panels which fully provide for the energy demand of the house.

*A house with a net zero energy bill over the course of the year.

PROJECT PROFILE

Stony Point House

The house, located in a rural area outside of Charlottesville, is designed for a stained glass artist and an attorney, and reexamines passive solar strategies on a wooded, west-facing hillside. Working closely with Nelson Byrd Woltz Landscape Architects, Hays conceived the house as a series of terraces carved into the hillside, capped with an expansive roof.

Having traveled widely and just relocated from London, the clients expressed an interest in a quiet contemplative Zen-like lifestyle and a house that allows for the greatest appreciation of their beautiful three-acre woods.

The upper level is afforded the greatest views and incorporates the primary living and dining areas as well as the master bedroom. The L-shaped deck doubles the living area and screens the lower level from direct sun in the summer. The V-shaped roof provides shelter for the house and makes the deck useable most of the year. The lower level includes the stained glass studio, game room, study, library and guest room. This level empties out to a terrace with an outdoor fireplace and a lap pool.

The house is oriented exactly on the north-south axis. Besides working with passive solar strategies, other green design systems include structural insulated panels for the walls, radiant floors for the lower level heating and solar thermal panels for the hot water.



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While both Chris and Allison have extensive experience in medium and large sized firms, as a smaller firm the principals are hands-on and able to work closely with clients in a collaborate process. “We are client-focused,” explains Allison. “We believe it is essential to engage the client and from the outset to understand their goals. The conceptualization of our projects is deeply rooted in understanding each particular site. Each project is therefore unique to the client and site.” During this initial phase, HEDS is careful to listen and not push any design agenda or style on the client. “Our clients are excited to see how their initial thoughts are transformed into a compelling design after a series of meetings and design sketches,” adds Chris. “They also appreciate how carefully we listen and hard we work to make sure the result is right for them.”

The design process begins with two to three sketch ideas that build on the client’s goals and the site opportunities. “We care a great deal about design and believe you can create something truly remarkable for that particular place and client if you invest the time and thought,” continues Allison. “Seeking transformation of site, of workplace, and of living environment we have an approach which encompasses meeting client’s goals while arriving at elegant solutions that embody the best practices of sustainable design.”

Taking a truly collaborative approach to each client and project, HEDS also focuses on the careful integration of buildings

with their environment. “We also believe in the importance of building with firm ecological principles,” says Chris. “In this period when global warming is having such a profound impact on the planet, we, as architects and designers, need to do everything we can to create self-sustaining buildings and infrastructure. We have designed several net-zero energy buildings in the last few years.” The firm’s designs have received many awards from the American Institute of Architect (AIA) and clients may select HEDS for the quality of their designs without consideration of sustainability. HEDS remains committed to designing beautiful buildings that are also ecologically responsible. “We are able to find green solutions that our clients can embrace. For instance, beauty and comfort can be achieved through a careful calibration of spatial play and an air-tight enclosure that is daylit, well-insulated and well-ventilated. These are the types of win-win solutions that we seek, those that meet client’s goals while also reducing our carbon footprint,” adds Allison.

With a strong belief in community in all levels and types of projects, HEDS strives to create the key places, indoors and out, where both large and small groups can come together. “We create projects that are unique because they reflect the spirit of our clients and the character of the place,” states Allison. “That sense of place is further reinforced by a careful integration of the ecological needs of the site and the functional needs of our clients.” By harmonizing buildings with their surroundings and the integration of a building and natural systems, HEDS molds a perfect complement between green and modern

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PROJECT PROFILE

Belvedere Civic Center

A wooded park plaza is at the heart of the Civic Core and at the head of the park stands the striking Belvedere Hall. With its iconic form and structural expression, the hall rises above the canopy of trees simultaneously establishing an intimate relationship with its natural setting while engaging with the sky. From its decks it enables "beautiful views" in the true spirit of the Belvedere community.

Large operable doors completely open at the north and south ends to transform the space into an open air pavilion during fair weather. The mezzanine level allows audiences to occupy the upper level for great views to the performances and to the landscape beyond. The lower level can host banquets or smaller gatherings and breakout sessions. Also, the Montessori School next door can use this space as a large playroom and gymnasium.

With its inherent flexibility the Great Hall allows full optimization of use, year round, and will equally suit large (580 seats) and small gatherings with flexible seating and stage arrangements, indoor and outdoor concerts, movies, art exhibits, conferencing, classes (art, dance or yoga, for instance), summer camp activities, annex space for the Montessori school, weddings or worship.

Two wings embrace the wooded park and contain a post office, restaurant, and retail spaces such as a wine and cheese shop. These uses, enjoying adjacency to the park, are intended to be attractive to the community on a daily basis as well as complement evening events at Belvedere Hall.

The Civic Core will become a unique attraction for the immediate community and the city at large. A great hall on a park plaza with endless possibilities for performances and gatherings as well as stunning views of the surroundings will create a powerful urbane place for this community.

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design. “By drawing liberally from primary elements found in the outdoors, our projects incorporate an abundance of daylight, fresh air, and views,” continues Chris. “This is coupled with our focus on the careful integration of buildings with their environment, such as cooling through natural ventilation, rainwater collection, and harnessing energy from the sun.”

Having decades of design experience and project success, Chris and Allison rightfully earned their accolades. When clients of HEDS were asked to give their opinion of the work the firm did, the results turned out to be more than impressive. Here are just a few excerpts written to the principals after project completion.

“Working with HEDS was a great experience, and my Net Zero home is the most comfortable and beautiful space imaginable. Chris understood my goals, aesthetic, and how I wanted to live in the space day-to-day. I was able to collaborate on materials and finishes so that the home really feels like me. I’m amazed how a modern home can feel so warm and inviting. I couldn’t be happier.” – Owner, Mill Pond House

“Chris Hays was the best fit for our aspirations for designing a stylish functional “green” low maintenance home (no lawn, no lawnmower), beautifully integrated into the landscape... Chris and Allison guided us on the choices of tiles, fixtures and floor treatments. It’s a joy to be at home.” – Owner, Stony Point House

“Allison Ewing of Hays + Ewing has been a pleasure to work with. I initially considered Allison due to the fact that her company was LEED compliant and she was known for her contemporary and modern design flair. Allison has been extremely professional and very responsive to my needs. She is always up on the latest trends, extremely creative and has a great design sense. Allison’s knowledge in spatial-planning and the various materials available for any given project is second to none.” – Owner, Linkhorn Bay House

“Working with Allison was an exciting process: we had a big wish list, a strict budget, and a desire to create a non-traditional, flexible space that complimented the way we live. What we got was more than we ever imagined; the space is truly beautiful. We honestly feel that the home has improved our quality of life and look forward to experiencing the seasons change. If you care about the environment and have an appreciation for great design and architecture, work with Hays + Ewing Design Studio. You won’t be disappointed!” – Owner, Arlington Tree House

“Chris listens carefully to his clients’ ideas and visions for their house and then creates unique designs to fulfill their desires... Chris is very knowledgeable about and dedicated to green design and I feel fortunate to have worked with him. I’m proud to say that a house we built in 2010, designed by Chris, was awarded Top Ten Earthcraft House for energy efficiency in the state of Virginia. I highly recommend Hays+Ewing Design Studio.” – Peter Johnson, Owner, Peter Johnson Builders

“Allison was lead designer for our custom home -she and her team provided great service. We love our home which won Custom Home of the Year Award from Custom Home Magazine. Our house has also been featured on HGTV. It is a beautiful home designed for our needs.” – Owner, Virginia Beach House

When looking to the future, Hays + Ewing Design Studio has much to be excited about. While maintaining lasting relationships with clients and contractors alike, the firm continues to forge a reputation for excellence in sustainable design. Looking to the future, Chris Hays and Allison Ewing are expanding the scope of their practice to include larger commercial and institutional projects, while continuing to maintain the hands-on approach that has been the foundation of their design process. “HEDS will always remain committed to the careful integration of green design whatever the scale of project, from the dwelling to community planning,” explains Allison. “We seek to advance sustainability both within and beyond the profession – by modeling solutions both visionary and practical.” HEDS is now taking their commitment to sustainable design to the next scale of projects and outreach. “We understand how important it is to show that well-conceived architecture and urbanism can present a positive environmental vision at a time when the weight of the problems seems to overwhelm the solutions,” says Chris. As HEDS continues to grow, Hays and Ewing recognize that their work will

have a greater positive impact as they work on a variety of scales and building types.

**All Photography
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