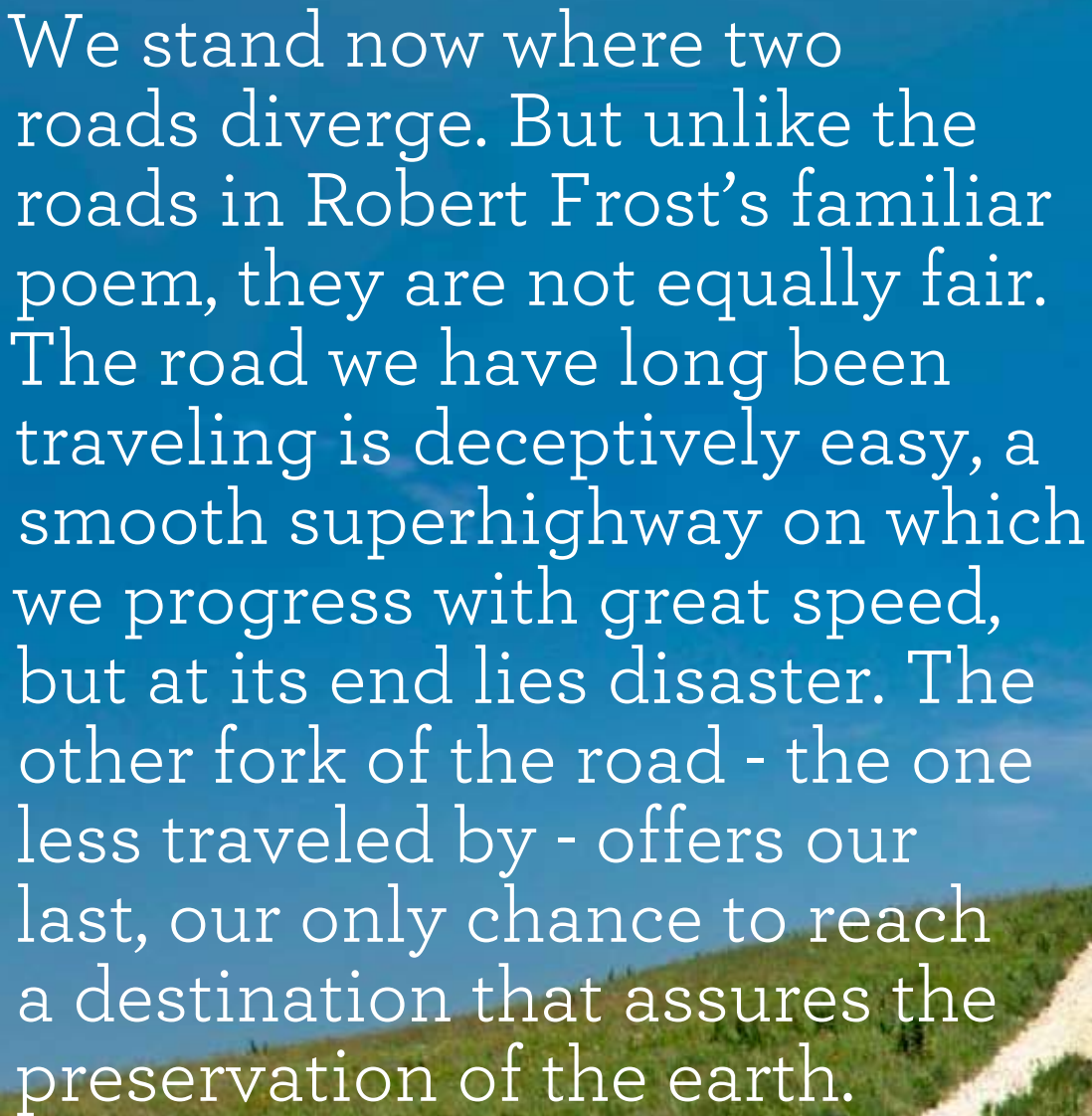


A Splendid Vision

CHATHAM UNIVERSITY // EDEN HALL CAMPUS MASTER PLAN



EXECUTIVE SUMMARY // 14 OCTOBER 2010

A gravel path diverges into two directions on a grassy hill under a blue sky. The path is made of light-colored gravel and is flanked by green grass. The sky is a clear, deep blue. The text is overlaid on the left side of the image.

We stand now where two roads diverge. But unlike the roads in Robert Frost's familiar poem, they are not equally fair. The road we have long been traveling is deceptively easy, a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other fork of the road - the one less traveled by - offers our last, our only chance to reach a destination that assures the preservation of the earth.

RACHEL CARSON // CHATHAM UNIVERSITY CLASS OF 1929

INTRODUCTION //

This changes everything...

What is it that determines our course, defines our horizons, and shapes our future? Is it our knowledge—the roots of what we know, what we discover, and what we share? Our actions—how we apply our knowledge to change the world around us? Or is it progress—the fruit of knowledge and action?

Chatham University's new Eden Hall Campus offers unprecedented opportunities for transformative change—the kind of change that will affect the behavior of our global society and the way we interact with our planet and the environments we inhabit.

As a living and learning community, Eden Hall Campus will provide an immersive setting in which students and faculty will study and advance sustainable development based on restorative principles. This is a dynamic and exciting place—a living laboratory in which to explore fundamentally different approaches to how we manage resources, both physical and intellectual. It will allow us to model development and behavior, changing the way we occupy the land, design buildings, interact with our communities, fuel our economies, and design systems for energy, waste, water, transportation, and food.

The new Eden Hall Campus will enable us to learn, act and progress in a way that corrects our course and encourages us to choose and forge a new path into the 22nd Century.

CONTEXT / HISTORY / IMPETUS //

Since the early 19th Century, Eden Hall Farm has served as a place for focused connection with nature. As a farm, a resort, a preserve, and now a laboratory, the *genius of the land* continues to inspire generations of bodies and minds to explore, discover, learn, and renew.

Upon his death in 1938, Sebastian Mueller, Senior Vice President of the H.J. Heinz Company and charitable humanitarian, left his farm to be used as a resort where women in the region could revitalize through nature. Serving this purpose until 2008, the land remained largely untouched amidst booming neighboring development and is now the largest undeveloped tract of land in Allegheny County, PA.

Across the river from Eden Hall Farm, Chatham University has nurtured a mission since 1869 that parallels that of Mr. Mueller's, focusing on environmental research and promoting educated female leaders. The university, formerly a women's college, is home to the Rachel Carson Institute of Sustainability, which was formed in 1989 to promote the awareness and understanding of significant and current environmental issues.

In 2008, Eden Hall Foundation donated the 388-acre farm to Chatham University to further the university's educational objectives and, in doing so, created an extraordinary opportunity for immersive research and advancement in the arena of environmental study. This gift marks a new trajectory in our society's course to a sustainable future, and the vision for the new Eden Hall Campus is our vehicle.



Eden Hall Campus is located approximately 25 miles north of Chatham University's Shadyside Campus and Downtown Pittsburgh. It is in the midst of some of the region's fastest growing communities.

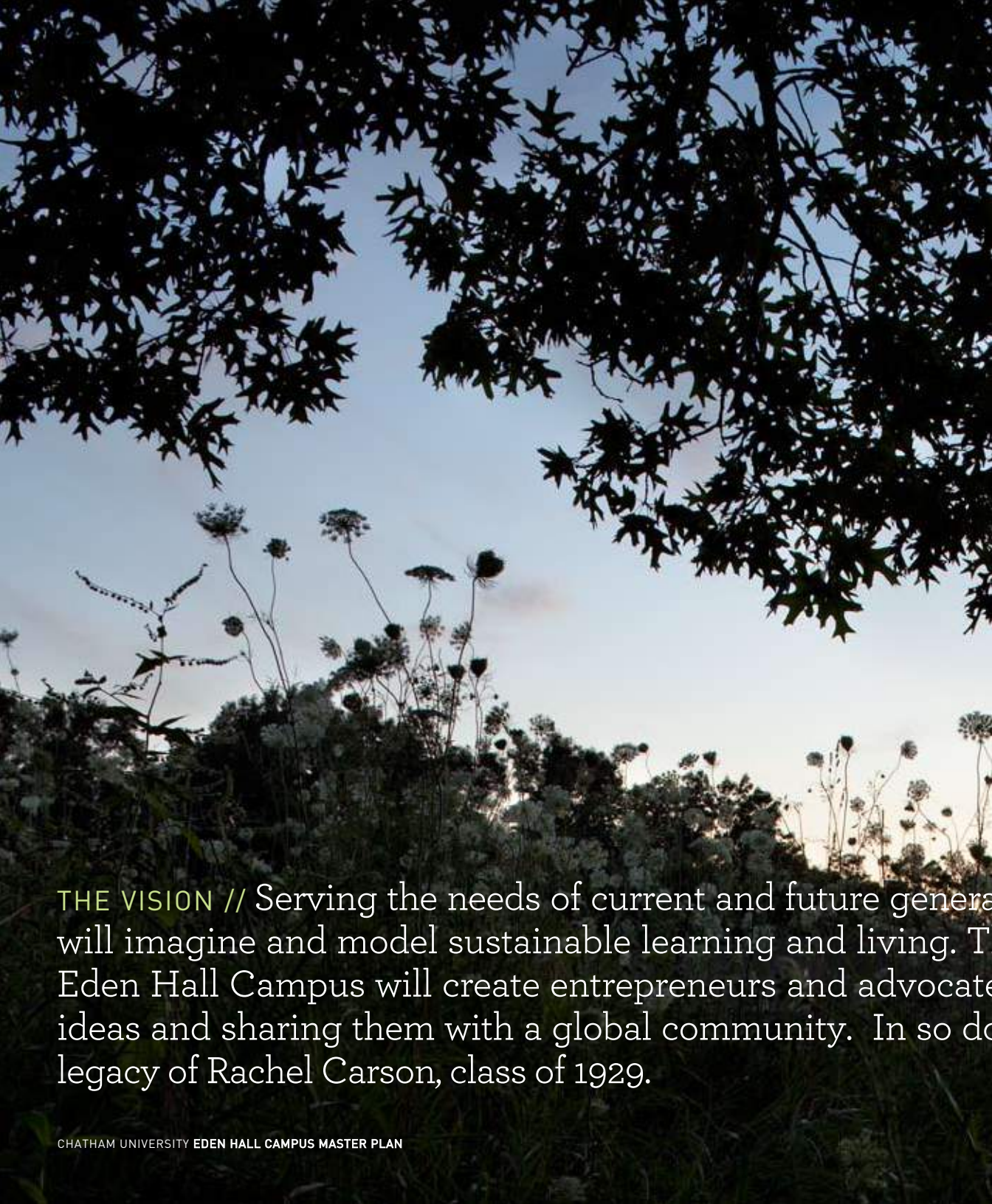
This location presents a unique opportunity by virtue of its proximity to the city and the suburbs. It is much closer to a major city than forest and nature preserves affiliated with other universities. Access to diverse local and regional amenities will be attractive to prospective students.





EXISTING LODGE
& MUELLER HOUSE

EXISTING
BARN



THE VISION // Serving the needs of current and future generations will imagine and model sustainable learning and living. The Eden Hall Campus will create entrepreneurs and advocates, share ideas and sharing them with a global community. In so doing, we honor the legacy of Rachel Carson, class of 1929.



tations, Chatham University at Eden Hall
through scholarly training and research,
es capable of implementing sustainable
oping, Chatham will proudly advance the

THE POTENTIAL //

NOW IS THE TIME FOR LEADERSHIP

Rapid global changes demand new ways of thinking about well-being, economic development and social justice, and fundamentally different approaches to managing environmental, agricultural, intellectual, cultural, energy, and material resources. Eden Hall Campus will model, research, and advance sustainable development, fostering the knowledge, wisdom, and practices necessary to meet these challenges. Chatham University's dedication to experiential, multidisciplinary education will inspire generations of leaders in sustainable thought and praxis. Through this new campus, Chatham University will further Rachel Carson's vision and legacy, bringing it to current and future generations. It will establish Chatham University as a global leader in applied sustainability.

A MODEL CAMPUS

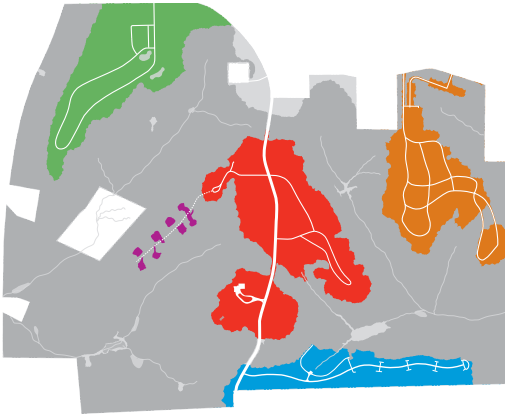
Eden Hall Campus will be the first academic institution designed ab ovo to integrate sustainable development, learning, and living. Housing the new School of Sustainability and the Environment and a re-envisioned Rachel Carson Institute, the campus will weave together broad issues of sustainability to inform decision-making and the marketplace. Over time, it will evolve into a comprehensive campus that, linked with Chatham's Shadyside Campus community, connects physically and virtually to students, faculty, professionals, and leaders around the world. Members of Eden Hall Campus will engage in immersive learning, rooted in the place but looking out to the world. Eden Hall Campus will thus serve as a living laboratory where students and faculty analyze, reflect, create and live sustainably, inspired by each other and their unique natural, technological, and social surroundings.



Barn Complex







Elsalma District
 Mueller Campus Center
 Elizabeth Meadows
 Thoreau Cottages
 Stanford Hill

CAMPUS PRECINCTS Eden Hall Campus is organized into campus precincts. The Mueller Campus Center and Stanford Hill precincts make up the academic core of the campus. The Elsalma District is a mixed-use district that includes outreach and academic functions. Faculty housing and the main campus parking lot are located in Elizabeth Meadows. The Thoreau Cottages give students and guests access to nature and solitude.



1. Barn Complex
2. Greenhouse
3. Academic Building
4. Residential Building
5. Commons Building
6. Constructed Wetlands
7. Amphitheaters
8. Mueller House
9. Lodge
10. Sports Complex

11. Storage Building
12. Facilities Management
13. Pedestrian Bridge
14. ADA Parking
15. Thoreau Cottages
16. Townhouse Community
17. Springhouse
18. General Parking
19. Gatehouse

- A. Orchard and Guest House
- B. Conference Center, Restaurant
Classrooms, and Animal Barn
- C. Aquaponics
- D. Continuing Education Building
- E. Guest Lodge
- F. Bunkhouse and Common Building
- G. Wellness Center
- H. High Tunnels, Greenhouses, Market
- I. Animal Barn and Pasture
(rotating acreage)





THE FOUR PLAN PRINCIPLES //



ACADEMIC EXCELLENCE //

Eden Hall Campus will house a model curriculum for systems thinking focusing on interdisciplinary research, sustainability, and hands-on learning.



COMMUNITY BUILDING //

Strong relationships that develop across the campus and global outreach via a “virtual campus” will enhance lifelong collaboration, leadership, and activism.



ROBUST NATURAL ENVIRONMENT //
Restored natural systems, healthy streams and forests, and a focus on the “genius of the land” will nurture a regenerative relationship with natural capital.



HIGH PERFORMANCE BUILT ENVIRONMENT //
Demonstrating the principles of high performance design, Eden Hall Campus’ elegant and efficient buildings will provide a laboratory for testing best practices.

ACADEMIC EXCELLENCE //

Big Thinking for a Big World.

College students today are increasingly asked to “think big,” as it is their charge to define and design a future that is resilient under conditions of rapid societal, resource, and environmental changes. They are expected to thrive in a world characterized by physical and virtual globalizations. In this spirit, Eden Hall Campus is designed to facilitate the growth of thought leaders, promoting individual self-reflection, and providing students with the skills, insights, and confidence to improve the world around them.

Academics at Eden Hall Campus will draw inspiration from the natural wonder of the site to couple new interdisciplinary programs with the traditions of Chatham University. From arts, to science, to history, to business, to communication, interdisciplinary students at Eden Hall Campus will collaborate to address the challenges of an increasingly complex world. Like Rachel Carson, they will be inspired to understand the interconnectedness of humans and nature and advocate for a sustainable future.

All students, past and future, aspire to have better lives for themselves and for later generations. Next generation students will need academic programs that cultivate an integrated view of a world that can foster such growth. They will seek sustainable learning, and academic opportunities at Eden Hall Campus will respond to this need with a new blend of traditional and experiential learning.

PLAN GOALS //

Approach Eden Hall Campus as a living laboratory

The act of developing and living on Eden Hall Campus will be a subject of study unto itself. Students will use their surroundings as a laboratory to explore sustainable land management, food production and delivery, architecture, energy generation and more.

Integrate a diversity of academic disciplines

Issues of sustainability and the environment are central to our lives and livelihoods. Academic programs at Eden Hall Campus will be deeply interdisciplinary, engaging the range of appropriate ways of knowing to inform choices for a sustainable future.

Seamlessly integrate the physical and the virtual

Students, those of today and the future, incorporate virtual technology into their daily lives. The Eden Hall campus philosophy will be to capitalize on the advantages of rapid, global, fluid interactions, while at the same time understanding and mitigating their downsides.

Translate research into practice

Academic programs at Eden Hall Campus will pursue new understandings and develop practical applications of that knowledge. Such efforts will be guided by a commitment to improving life for current and future generations.



COMMUNITY BUILDING //

People, community interactions, and social programs will transform Eden Hall Campus from a collection of high performance green buildings and landscapes into a premier living and learning campus. University stakeholders envision a campus that fosters strong academic and personal relationships while instilling a sense of the greater global community for which Rachel Carson advocated so passionately.

PLAN GOALS //

Foster a culture of learning

Eden Hall Campus will unite a diverse community engaged in an interdisciplinary pursuit of knowledge and lifelong learning.

Promote the campus community

The spaces, programs, and amenities at Eden Hall Campus will foster a strong sense of belonging and collaboration for students and faculty.

Engage the global community

Eden Hall Campus will engage others around the world in education, conversation, and experimentation that will improve social, economic, and environmental conditions.

Provide programs for the regional community

Through outreach programs and community education, students and faculty at Eden Hall Campus will model and demonstrate environmental leadership and sustainability.



ROBUST NATURAL ENVIRONMENT //

Eden Hall Campus' natural beauty impresses any who encounters it. The area conveys a sense of deep heritage as a working farm and retreat.

As scenic and peaceful as the campus appears, the ecosystems on Eden Hall Campus are currently in a state of stress and imbalance. An analysis of the existing environmental systems has identified opportunities and constraints for development and environmental restoration. The design for Eden Hall Campus restores the surrounding farm and forest. The programs on campus offer exciting opportunities for agricultural research and the study of ecosystems, which could, in turn, help restore ecological balance to the land.

PLAN GOALS //

Create a Climate Positive Development

The new campus will generate all energy on site and treat all waste water on site. On-site carbon emissions will be net-zero.

Protect Streams and Waterways

The development plan will maintain 300' stream buffers to protect water resources.

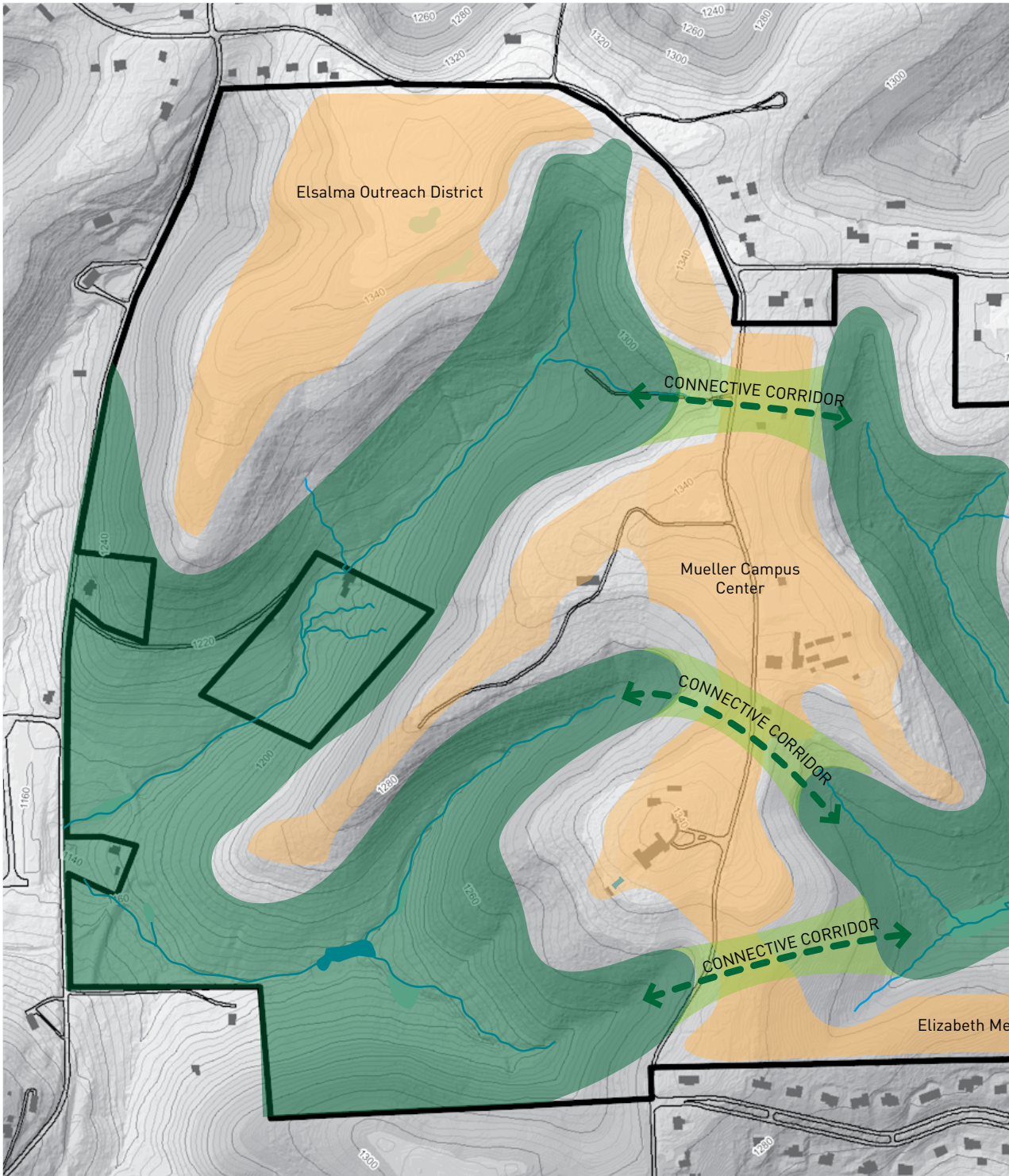
Regenerate Forest Lands

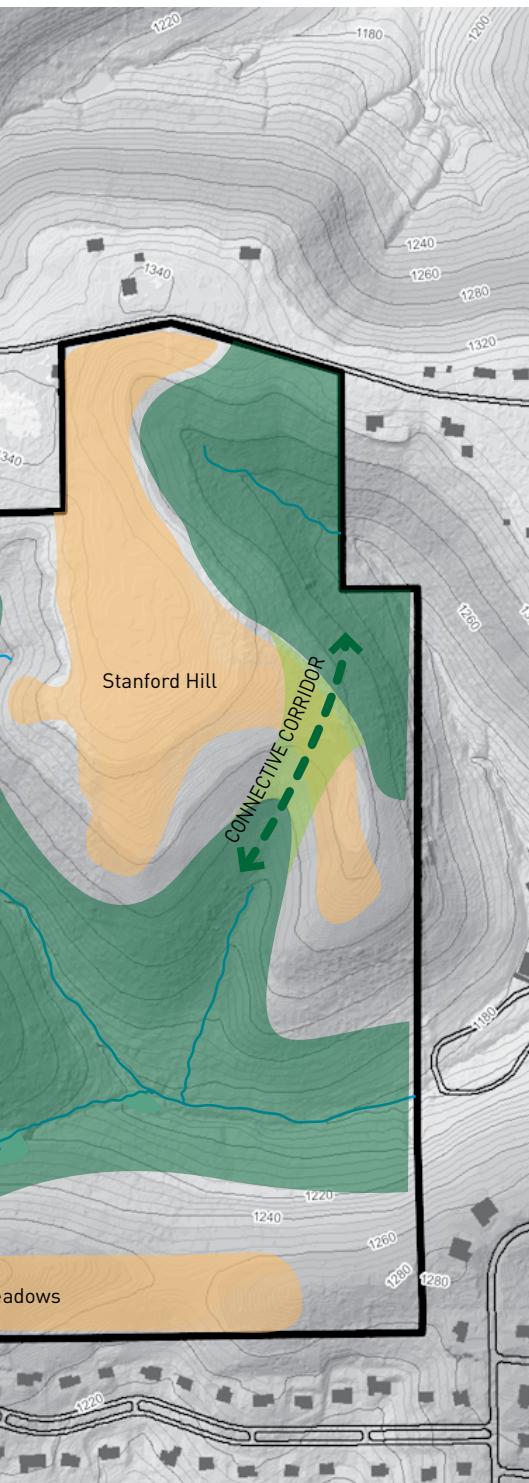
The plan will protect and restore nearly 200 acres of the forest for teaching, research and demonstration.

Protect Arable Land

The development plan for the campus will preserve productive landscapes and scenic views.







ENVIRONMENTAL ZONES

The plan divides Eden Hall Campus into three environmental zones based on the hydrology, slopes, and soil analysis. The “Green Zone” represents areas that provide valuable environmental services that should be preserved and restored to pre-development conditions. The “Orange Zone” identifies areas with the best agricultural soils, and the “Grey Zone” delineates the connections between preservation areas and prime agricultural areas.

GREEN ZONE – Preservation

“Conservation is Survival”

- Preserve the Campus’ existing forest and the wildlife habitats
- Enhance the Campus’ existing forest through effective forest management and restoration
- Reconnect isolated patches through the creation of woodland corridors
- Preserve, restore, and expand existing riparian corridors and wetlands

ORANGE ZONE – Arable Land

Existing Assets of Eden Hall Campus

- Treat agricultural soils as a non-renewable resource
- Maintain pre-development hydrological conditions
- Focus campus development in current areas of disturbance
- Cluster development along existing roads and infrastructure
- Capitalize on the heritage and identity of Eden Hall Campus to preserve its existing sense of place
- Create meadows in zones that will be developed in future phases and as buffers to forest

GREY ZONE - Connections

Connect Campus Residents to their Environment

- Balance arable land and slope constraints by developing with “One foot in the highland and one in the forest”
- Situate campus development near soils suitable for wastewater treatment and groundwater infiltration
- Avoid developing on slopes and landslide susceptibility areas
- Maximize the use of on-site materials for construction
- Uncover wastewater and stormwater systems and incorporate them within the civic space of the Campus
- Integrate food and energy systems with Campus life
- Create a range of movements in the Campus’ landscape

HIGH PERFORMANCE BUILT ENVIRONMENT //

The community and academic goals and the vision for the natural environment play a fundamental role in the design of new Eden Hall Campus. It is this deep understanding and culmination of pedagogy, community, and ecology that will enable the campus to function sustainably.

The structures on campus are envisioned as living buildings, generating all of their own energy with renewable resources, capturing and treating all of their water on site, and using resources efficiently and for maximum beauty. The design of each building, site and the campus overall will focus on transportation, views, materials, water systems, and energy systems to elevate the campus to the highest levels of sustainable performance.

By widely adopting the design concept of biophilia, the campus will become an interactive learning environment where the landscape and each building serve as a living laboratory. Made popular by E.O. Wilson in his discussion on “The Nature of Human Nature,” biophilia proposes that, as humans, we have an innate emotional and intellectual connection to natural systems. Not only do we find them beautiful and awe inspiring, but we can understand them and use them to guide our own uniquely human challenges.

PLAN GOALS //

Design a flexible and inspiring learning environment

Learning is not confined to the classroom. Eden Hall Campus will provide flexible communal spaces, coordinated with building circulation, to maximize formal and informal learning.

Use state-of-the-art sustainable building solutions

Eden Hall Campus will use sustainable development practices to construct a campus that restores the environment.

Repurpose existing facilities

The plan repurposes existing facilities when possible to preserve Eden Hall Campus’ heritage and reduce the environmental impact of construction.

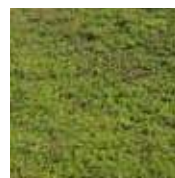
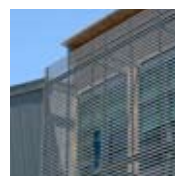
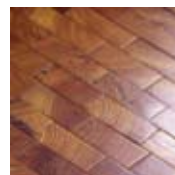
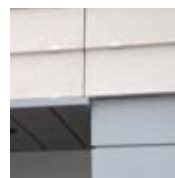
Provide abundant campus amenities

The campus design will provide for the needs of the students, faculty, and staff that use and live on Eden Hall Campus.









DESIGN CONCEPTS //

A primary objective of the design is to create a flexible and inspiring environment that allows for new modes of teaching, learning, researching, and living. The campus will promote an immersive, communal sense of student life—where studying, working and living are not separate activities in specialized spaces but are spontaneous activities that take place in numerous locations.

Preserving & Repurposing of Existing Facilities

To connect the campus to its “place” and enable the possibility of a zero carbon footprint, the campus will preserve and repurpose all viable existing structures, particularly those that embody strong architectural character and are identifiable to the place.

Flexible & Informal Learning Space

The location, program, and design of the academic buildings will be guided by the principles of flexible use and collective spaces. Specialized teaching spaces, such as laboratories, will be streamlined and made adaptable for more general teaching uses. Collective spaces and the circulation between the buildings will allow spontaneous encounters, meetings and gatherings, and the design of these spaces will facilitate the learning process on Eden Hall Campus.

Communal Living Space

Student residences promote communal life. Students living on campus will live in a residential building that functions like a large house with centralized common spaces including dining, kitchen, and lounge spaces. Though stand-alone structures, individual housing buildings will be connected via decks and breezeways; outdoor landscaping and student gardens will collectively enclose and define the residences.

Living in the Landscape

Students will inhabit the campus by continuously moving through the places and “living in the landscape.” Interpreting the lay of the land and “reading” into it reveals opportunities to construct and stage programmatic events: an amphitheater in the inflection of the hillside, the narrowing of the ravine to nest the bridge, etc. This further influences the design vision for the buildings themselves, which are transitional spaces, transparent, easy to enter and depart from multiple points, with sheltering porches, overhangs and breezeways, and which are always grounded in, and continuous with, the flow of the terrain.



above, top to bottom: barn complex quad and gardens, approach from south towards barn complex, forest trail adjacent to the residence halls, residence hall commons space. left page: metal roof, cement board, wood, stone and glass, metal screens, green roof.



CLIMATE POSITIVE PLAN //

Mahatma Gandhi said,
“Be the change you want to see in the world.”

Eden Hall Campus is envisioned as a true response to this challenge. As a climate positive campus—where on-site greenhouse gas emissions are actually less than zero—the precincts, buildings, sites, and infrastructure will employ integrated high-performance solutions and renewable energy resources to produce more energy than they utilize.

Developing Eden Hall Campus with climate positive goals presents a unique opportunity to demonstrate the best emerging technologies for efficiency and renewable energy. Integrating these technologies into the campus’s built environment provides the greatest opportunity to reduce the overall campus energy footprint. With this approach, the campus can meet all energy needs through efficient building and systems designs plus on-site renewable energy generation using a cost effective, replicable approach.

GENIUS OF THE LAND: REALIZING EDEN HALL //

It all begins with the land.

The vision for Eden Hall Campus is founded on the lessons that emerge from the soil. The beauty of the place. The natural systems that sustain growth and renewal. The rooted culture and timeless character that permeate the grounds. These elements—the *“genius of the land”*—make up the heart of this new living laboratory.

Unfolding over time, Eden Hall Campus will develop in phases: Immediate, Short Term, Mid Term and Long Term. Building types and site design will take a cue from nature and will evolve through each phase, serving as progressive prototypes that will inform future phases.

Upon completion, Eden Hall Campus will exist as a self-reliant ecosystem. The genius of the land—at first just a source of inspiration—will absorb the built environment, sustaining it as part of the natural system and, most importantly, serving as the primary teaching and learning tool for future generations of environmental pioneers.

Immediate – Phase 1

(2-3 years)

The Immediate Phase includes existing facility renovation/preservation, the construction of academic and residential facilities in two campus precincts, and intensive landscape restoration.

Short Term – Phase 2

(3-5 years)

Learning from Phase 1 prototypes, the Short Term Phase will continue the development of two initial precincts, begin addressing parking strategies, and continue major landscape and infrastructure improvements.

Mid Term – Phase 3


(5-10 years)

Informed by the two previous phases, the Mid Term Phase will conclude the development of the two initial precincts, begin expansion to two other precincts, and resume ongoing efforts to restore landscape and infrastructure.

Long Term – Phase 4

(10+ years)

The Long Term Phase will conclude the development of Eden Hall Campus.

A man with dark hair, wearing a light-colored striped shirt and dark pants, stands with his back to the camera in a field of tall green grass. He has his hands on his hips, looking out over a vast landscape. In the background, there is a dense line of green trees under a clear blue sky. The overall scene is peaceful and contemplative.

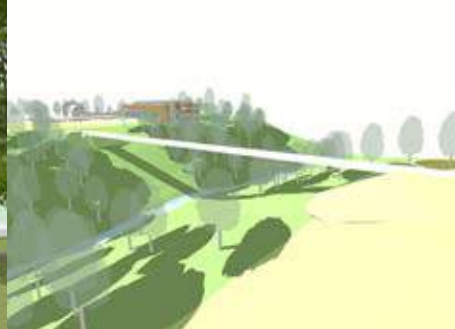
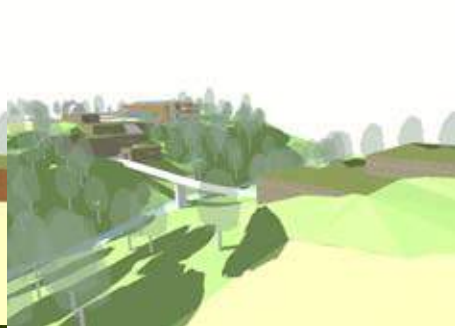
Sometimes I lose sight
of my goal, then again
it flashes into view,
filling me with a new
determination to keep
the *vision splendid*
before my eyes.

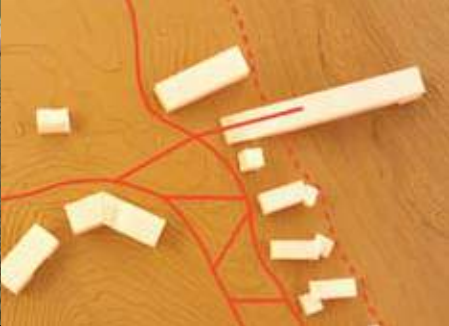
RACHEL CARSON // CHATHAM UNIVERSITY CLASS OF 1929

Rooftop of Commons Building and Pedestrian Bridge









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