UNION

Places of Value. *Value of Place.*

PROPOSAL

Cape Cod Museum of Art

Proposal for Architectural & Schematic Design Services

Cape Cod Museum of Art | 60 Hope Ln | Dennis, Massachusetts

MAY 01, 2026

SUBMITTED TO

CAPE COD MUSEUM OF ART
Michael Rabideau, Director of Operations
60 Hope Ln
Dennis, MA 02638

SUBMITTED BY

UNION
160 Mathewson Street
Suite 201
Providence, RI 02903

109 South 13th Street
Suite 3B
Philadelphia, PA 19107

May 1, 2026

CAPE COD MUSEUM OF ART
ARCHITECTURAL & SCHEMATIC DESIGN SERVICES

Michael Rabideau
Director of Operations

Cape Cod Museum of Art
60 Hope Ln
Dennis, MA 02638

Dear Mr. Rabideau,

Union Studio Architecture & Community Design is pleased to respond to the Cape Cod Museum of Art's Request for Qualifications. As a Providence, Rhode Island based firm with twenty-five years of practice rooted in New England, and a particular and abiding commitment to the Cape and Islands, we bring to CCMoA a body of work and a way of thinking that we believe align closely with what your project asks of a design partner.

The work CCMoA is undertaking — a new pottery studio and education wing, a reimagined visitor experience, and a thoughtfully redesigned sculpture garden — is a project about how an institution grows its civic role without losing what makes it cherished. That is a question we have spent our careers learning to answer. Our ongoing renovation and expansion of the Hyannis Public Library, just down Route 6 from you, takes on the same essential proposition: how to add substantial new program — children's spaces, a teaching kitchen, a flexible community room — to a beloved historic Main Street institution whose identity is inseparable from its historic Cape-vernacular fabric. That project is one chapter in a deeper Cape and Islands story for our firm, ranging from regional planning work with the Cape Cod Commission to context-sensitive housing and supportive living environments that knit local community needs into the cultural and natural landscape — work that has earned us the trust of communities across the region and brought them back to us, because of what we have learned to listen for.

A central conviction runs through that work, and it feels especially relevant here. Context, for us, is inspiration rather than a stylistic default. The patterns of Cape building are a living tradition, and it is the role of each generation to thoughtfully extend that tradition with a balance of reverence and invention. CCMoA's existing campus already demonstrates this; the original building and its subsequent addition together form a quiet, confident reflection on Cape precedent, and any expansion worth the museum's name should extend that conversation. There is a deeper alignment here too: a museum dedicated to Cape Cod's artistic heritage exists in large part to celebrate how regional tradition is renewed, expanded and diversified by living artists. Our hope for the outcome of this project would be an integrated design and collaboration which brings forward that same spirit.

We are grateful for the opportunity to be considered. The project resonates with the work we care most about, and we would welcome the chance to learn more about your aspirations for the museum and to share how we might help you realize them.

Respectfully submitted,

Douglas Kallfelz AIA, LEED AP, CNU
Co-founder & Managing Partner
douglas@unionstudioarch.com

SANDBAR RESIDENCE, *Tiverton, Rhode Island*

CONTENTS

UNION STUDIO ARCHITECTURE & COMMUNITY DESIGN, *Providence, Rhode Island*

Firm Profile

Founded in 2001

ARCHITECTURE & COMMUNITY DESIGN

With offices in

Providence, RI
Philadelphia, PA

- EAST COAST BASED
- NATIONAL REACH

40 Employees

- ARCHITECTS
- PLANNERS
- DESIGNERS

***Union** is a nationally practicing architecture and community design firm. We're driven by our mission to enrich lives and strengthen communities. Our work includes urban planning and community design, civic and institutional buildings, mixed-use developments, and housing of all types.*

INSTITUTIONAL & CIVIC BUILDINGS are among the most important places we design. They carry a heightened responsibility to the public realm — anchoring neighborhoods, embodying collective identity, and setting the tone for the daily life of the people they serve. Designing for these institutions demands humility, careful listening, and deep respect for cultural context.

Our institutional and civic practice spans new buildings, renovations, and the careful renewal of historic structures. Our approach pairs respect for context with practical strategies for code compliance, accessibility, targeted mechanical upgrades, and contemporary program needs. We collaborate closely with MEP, code, and specialty consultants, integrating their expertise into a coherent design, and work alongside construction managers from the earliest sketches to align scope, cost, and schedule.

Listening shapes every project. The questions we ask early — how a space is used, who moves through it, what is missing, what is loved — guide every choice that follows. The result is architecture that is welcoming and worthy of the life it holds, enduring yet able to evolve, serving its community well today and earning its affection for generations to come.

OUR MISSION

Using the power of design to enrich lives and strengthen communities.

We are ...

Partners who believe in “serving first”. Through collaboration, empathy, and humility we earn the opportunity to help shape the future for our clients and the communities we serve.

Leaders and fierce optimists. We challenge ourselves and our colleagues to advocate for and create more beautiful, just, and sustainable places for this generation and the next.

Stewards entrusted with preserving and extending the accumulated wisdom of our profession in service of a more equitable, sustainable, and enduring future.

Artists who believe that beauty has the power to enrich and delight—to elevate the merely practical in order to touch the spirit. We aspire to bring this artfulness to all that we do.

Grateful and love what we do and who we do it with. We believe that creating places for people to thrive should be fun and enriching for everyone. We find joy in working to make the world a better place.

Our Work Across

Cape Cod & The Islands

THE CAPE COD & THE ISLANDS are a significant, and growing segment of our portfolio. For more than a decade, our work here has ranged from regional housing strategy with the Cape Cod Commission to historic restoration in Hyannis and Nantucket, mixed-income and affordable communities masterplanned across Brewster, Dennis Port, Chatham, and Orleans, and supportive housing on the Cape and Martha's Vineyard.

Across this range, the work shares a common discipline: deep listening to place, fluency in the region's vernacular, and respect for the community character and climate that have shaped Cape architecture for three centuries.

This listening extends to the people who steward these places. Our regional housing work with the Cape Cod Commission was guided by direct, sustained engagement with the communities involveds — via public workshops, visual preference surveys, and conversations carried across months and seasons. This is patient labor of meeting communities where they are, and earning the trust that good design requires.

This same approach has shaped our work on the Hyannis Public Library (now under construction), whose design emerged from steady conversation and collaboration with multiple project parters including the library's board, staff, donors, and Main Street neighbors — the community whose century of stewardship has carried the building this far.

This practice shapes every project we take on.

HERITAGE SANDS

Dennis Port, Massachusetts

Sixty-three cottages in Dennis Port — the first new cottage community on the Cape in decades.

Making Places That Last...

The most enduring buildings have been frugal by nature — designed to last, sited with care, made to meet their seasons.

Our work honors that wisdom while making room for what's needed now.

The buildings that have lasted longest have always known how to live in their climate. Walls thick enough to hold a season. Roofs pitched to shed the weather. Rooms scaled to the warmth they can keep. These are old answers to questions still being asked.

Our team carries that wisdom forward, and pairs it with what the present has learned. Within our practice are Certified Passive House Consultants, and within our portfolio are certified Passive House buildings alongside net-zero communities — places designed to live lightly on the land that holds them.

We have learned, too, from sites that ask more than most. A wharf at the water's edge, lifted above the floodplain to make room for a public space and a bio-retention system that returns clean water to the bay. A National Historic Landmark on a working harbor, held for the next half-century by a phased adaptation plan triggered by flood probability rather than by calendar. A factory site whose soil had carried a century of industry, remediated and returned to ground that now grows flowers that are given freely to those in need.

What endures is what was built with care for the long measure: the climate, the place, and the people who will inhabit it after us.

WRIGHT LOCKE FARM, ALL SEASONS BARN
Winchester, Massachusetts

Heavy timber, v-groove wood ceiling, board siding — draws on the language of the historic farm barn while meeting the program of a modern education and event center.

TIVERTON PUBLIC LIBRARY, *Tiverton, Rhode Island*

Our Approach to Programming

OUR PHILOSOPHY

Programming is where a building begins to take shape—in conversation, observation, and patient study of what a place is asked to do, and for whom.

Every project begins with questions. Who will use this place? How does it work today? What is it being asked to become? Programming is the steady work of answering these questions.

Listening comes next. Stakeholder conversations move across an organization—leadership, staff, partners, the people who pass through each day. Their priorities surface in matrices and margin notes, and together become the compass that guides the decisions ahead.

Observation deepens the work. We tour comparable buildings alongside our clients, learning from places already in operation. We walk the site together, reading its neighborhood, its light, its history. When an existing building is part of the story, we listen to it too—to the craft in its materials, the wisdom embedded in walls that have stood the test of time.

Analysis follows. Conversations become diagrams: organizational charts, adjacency studies, square-footage tallies. We hold the program a client needs against the footprint they have, and the gap between them becomes the next question to answer.

The work then opens into possibility. We bring multiple schemes forward, each a different answer to the same question, paired with massing studies and early sections. Trade-offs are made visible; the client weighs them, and chooses.

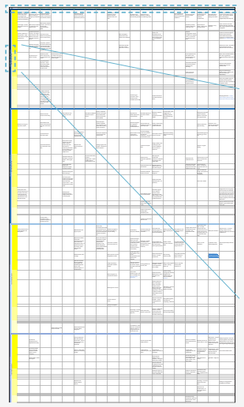
What emerges is a framework: a clear set of goals, a guiding strategy, and a shared understanding of how the building will serve the people who will call it theirs.

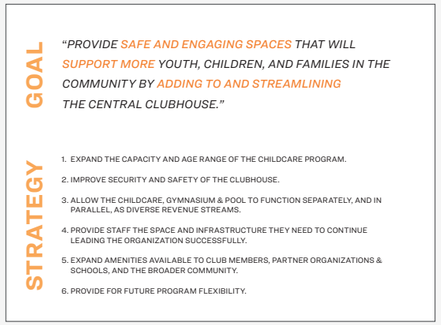
UNION

How Programming Becomes Place: *Listening, Drawing, Shaping*

Listening — Gathering Voices, Defining Goals

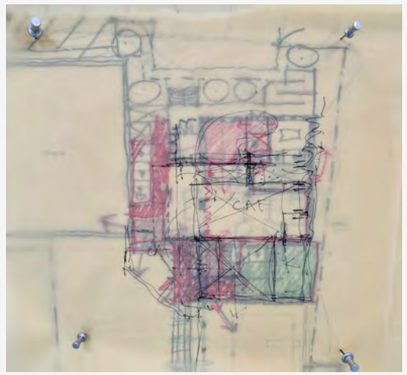
Programming begins in conversation. We meet with the people who know a place best—leadership, staff, partners, neighbors—and let their priorities surface. The matrix that emerges becomes a compass: voices and values that will guide every decision ahead.

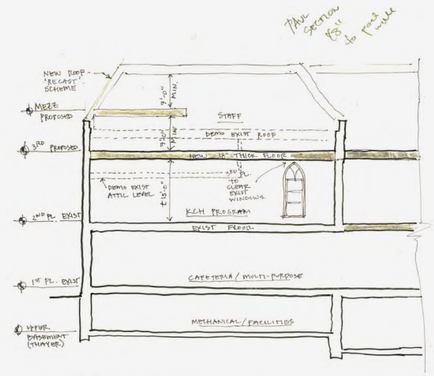


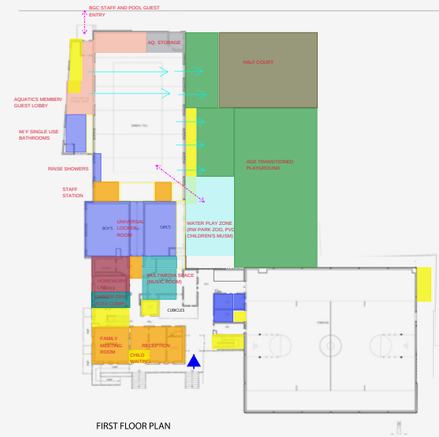


Drawing — Sketch, Trace, Iteration

Ideas are tried and tried again. Plans pushed, sections drawn to test a roofline, a stair, a third floor. Layers laid over layers, set aside, returned to. The building's logic emerges and the program finds its shape in the patient back-and-forth of testing what fits.



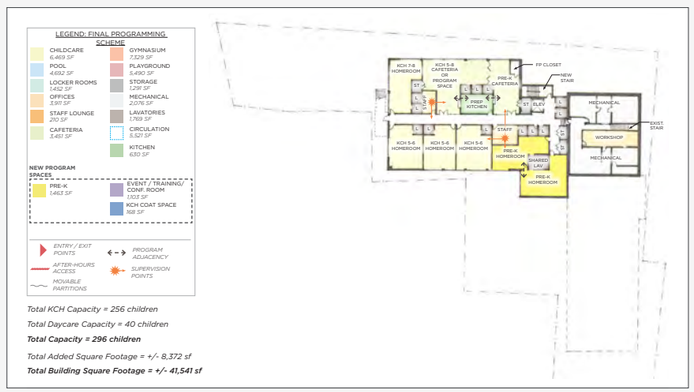




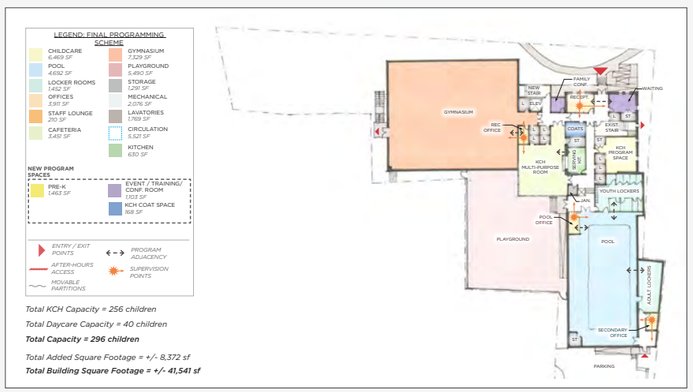
FIRST FLOOR PLAN

Shaping — Final Programming Scheme

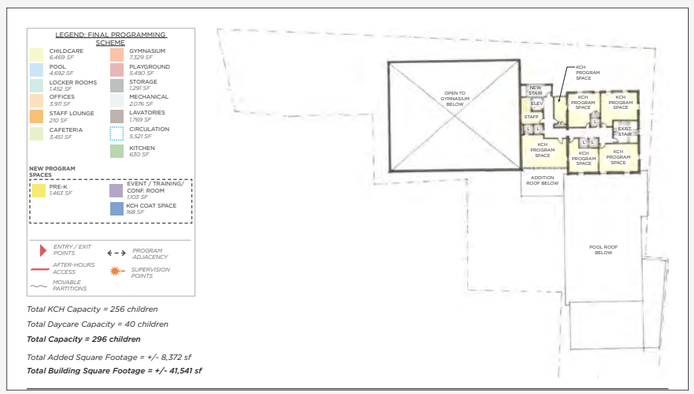
The program finds its place in plan. Color-coded zones, adjacencies, supervision points, entries—every decision from the work that came before now lives in a room with a door and a window. The building, in plan, has found its footing.



Total KCH Capacity = 256 children
Total Daycare Capacity = 40 children
Total Capacity = 296 children
Total Added Square Footage = +/- 8,372 sf
Total Building Square Footage = +/- 41,541 sf



Total KCH Capacity = 256 children
Total Daycare Capacity = 40 children
Total Capacity = 296 children
Total Added Square Footage = +/- 8,372 sf
Total Building Square Footage = +/- 41,541 sf



Total KCH Capacity = 256 children
Total Daycare Capacity = 40 children
Total Capacity = 296 children
Total Added Square Footage = +/- 8,372 sf
Total Building Square Footage = +/- 41,541 sf

SOUTHSIDE COMMUNITY LAND TRUST HEADQUARTERS, *Providence, Rhode Island*

Our Approach to Committee & Stakeholder Engagement

OUR PHILOSOPHY

The best buildings are shaped by the people who know them best — those who walk their halls each day, those who steward their systems, those who carry their institutional memory.

UNION

Every institution holds a particular kind of knowledge. The faculty member who knows which corner catches the morning light. The facilities engineer who has tended the boilers through forty winters. The department chair carrying decades of how the work actually gets done. This knowledge rarely sits in a brief — and it shapes everything we design.

At Union, engagement on institutional projects begins with attention. We listen to the building, to the people who use it, and to the teams responsible for its long life. Conversations with end users, facilities staff, and project leadership surface the realities that drawings alone can't capture: how a space is actually used, where the workarounds have quietly accumulated, what the institution most wants to protect.

These exchanges shape our work in concrete ways. They guide how a plan is tested, how scope is prioritized, how trade-offs are framed for the people who will weigh them. We bring our own expertise — in code, construction, historic systems, and the choreography of design teams — into a candid conversation with those who hold the institution's expertise. The result is a project shaped by both, and stronger for it.

Engagement, for us, is also a discipline of humility. Every institution has stewarded its places longer than we will know them. Our work is to honor that stewardship, ask good questions, and design with care for what is already loved.

DOWNCITY DESIGN, *Providence, Rhode Island*

selection of Award *highlights*

- *2025 AIA Philadelphia, Merit Award for Equitable Communities in the Historic Preservation/Adaptive Re-use category:* ***Southside Community Land Trust Headquarters***
- *2025 AIA New England, Citation:* ***The Veranda House Restoration***
- *2025 CNU, National Chapter, Three Charter Awards:* ***Westminster Street Revitalization; Eastdale Main Street Village; and Cape Cod Resiliency: Missing Middle***
- *2025 GrowSmart RI, Outstanding Smart Growth Award:* ***The Residences at Riverside Square***
- *2025 CNU, National Chapter, Merit Award:* ***Preserving History: Assessments & Climate Adaptations at the House of the Seven Gables***
- *2024 CNU, National Chapter, Merit Award for Emerging Project:* ***Veridian at County Farm***
- *2023 National Association of Home Builders (NAHB), Platinum Award:* ***Brewster Landing***
- *2022 Providence Preservation Society, Mission-Driven Preservation Award:* ***Southside Community Land Trust Headquarters***
- *2022 Urban Guild: Design Exploration Award:* ***Adults with Autism Disorder - Guides and Practices***
- *2022 AIA Philadelphia: Paul Sehnert Award Excellence in Design, Collaboration, & Impact:* ***Life do Grow Farm Conceptual Master Plan***
- *2021 CNU National Chapter: Charter Award:* ***Hammetts Hotel***
- *2020 NAHB, Platinum Award, Green Entire Home Remodel:* ***Jamestown Net-Zero House***
- *2020 NAHB, Platinum Award, Community of the Year:* ***Castle Street Cottages***
- *2019 CNU National Chapter, Filling the Housing Gap, Missing Middle Design Competition:* ***It Will Play in Peoria***
- *2018 NAHB, Best Student Housing:* ***Middlebury College Student Residences***
- *2018 NAHB, Best Single-Family One-of-a-Kind Custom or Spec Home:* ***This Old House® 2018 Idea House***
- *2016 APA RI Chapter Award Outstanding Neighborhood Planning:* ***Keeping History Above Water: Planning for Sea Level Rise in Newport's Historic Point Neighborhood***
- *2016 AIA New England: Design Merit Award for Institutional:* ***Tiverton Public Library***
- *2016 NAHB, Community of the Year:* ***Heritage Sands***
- *2015 NAHB, Best Project in Pacific Northwest Region:* ***Ludlow Cove***
- *2014 Builder Magazine: Builder's Choice Award, Project of the Year for Green Development or Production Housing:* ***Riverwalk***

21
AMERICAN INSTITUTE OF ARCHITECTS (AIA)

24
CONGRESS FOR THE NEW URBANISM (CNU)

5
AMERICAN PLANNING ASSOCIATION (APA)

21
NATIONAL ASSOCIATION OF HOME BUILDERS (NAHB)

LANDSCAPE ARCHITECT

RYAN ASSOCIATES

LANDSCAPE ARCHITECTURE AND PLANNING

RYAN ASSOCIATES

LANDSCAPE ARCHITECTURE & PLANNING

WHO WE ARE
From our offices in a historic mill along the Charles River in Waltham, MA, our studio tackles complex landscape design challenges for clients throughout New England and across the country.

The firm is a partnership between three principals: Laura Knosp, Tom Ryan, and Alan Aukeman, who collectively guide our team. Thoughtful design solutions backed by strong technical expertise continue to be at the heart of our practice.

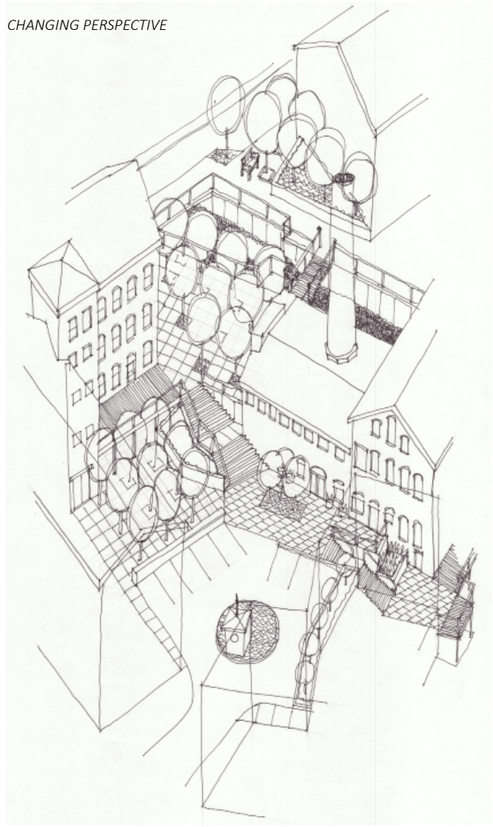
OUR APPROACH
Since our founding in 1998, we have provided a full range of Landscape Architecture and Strategic Planning services across a broad mix of projects, from institutional to residential, commercial to civic. Our work reflects our commitment to process and craft.

We approach projects with an open mind, intent on stewarding the creative journey for clients, breaking complex problems into approachable pieces, synthesizing feedback, and facilitating collaborative dialogue about best next moves.

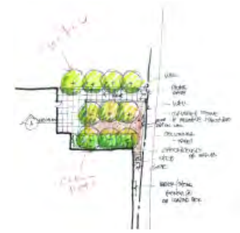
OUR WORK
Our work shapes places people genuinely want to be: where students learn deeply, employees work comfortably, children play creatively, families feel proud to live, community grows stronger, and art and nature live side by side.

OUR PROCESS

CHANGING PERSPECTIVE



DRAWING BY HAND



LEARNING BY DOING

COLLABORATION

DESIGN DEVELOPMENT AND ITERATION

PEMSTEIN RESIDENC, *Westport, Massachusetts*

Project Understanding & Schedule

Project Understanding & Schedule

THE CAPE COD MUSUM OF ART has built something rare: a 22-acre campus on Hope Lane that holds its own as a serious regional art museum while still feeling, as the RFQ puts it, like a hidden gem. The opportunity, as we see it, is in how to give the museum the additional capacity its programs have earned, while keeping the quality of welcome and intimacy that distinguishes it.

Our familiarity with the Cape gives us a working sense of the conditions this project sits within: the building patterns of the Old King's Highway corridor, the seasonal rhythms of visitation, the climate and material realities of building well here. The existing CCMoA campus already engages those conditions thoughtfully, and our work would aim to extend that conversation: drawing from Cape building traditions for inspiration and treating the existing architecture as a respected starting point to build from. Sustainability, in our practice, follows from that same way of working — buildings sited, sized, and built with care perform well as a matter of course, and we would expect CCMoA's expansion to do the same.

There is much we would want to learn from you and your community before we could bring more specific thinking to bear: how the museum's programs are evolving, how staff and visitors actually move through the building today, what your sculpture garden curation calls for, what the operational realities of a growing pottery program look like.

These are the conversations we most look forward to.

ARTIST: *Jackie Reeves, 2023*

PHOTO: *UNION site visit to CCMoA, 2023*

Our Approach

STEWARDING BUILDINGS OF BELOVED & ENDURING CHARACTER

Our design culture is grounded in a mastery of proportion, material logic, and architectural precedent that gave civic buildings their authority and longevity. We study the classical and traditional principles that produced buildings like CCMoA's main campus because those principles remain the most reliable guide to work that will endure, garnering the community esteem that justifies adaptive reuse and embodying a form of sustainability that reaches well beyond energy performance alone. This is not a nostalgic position; it is a rigorous one. Our practice has developed substantial experience in exactly this kind of work. Understanding what to preserve, what to recover, what to thoughtfully adapt, and where contemporary intervention can be made legible without competing with the original. We bring that same disposition to CCMoA: respect for the building as we find it, and a clear understanding of where the program asks us to make changes and how to make those changes well.

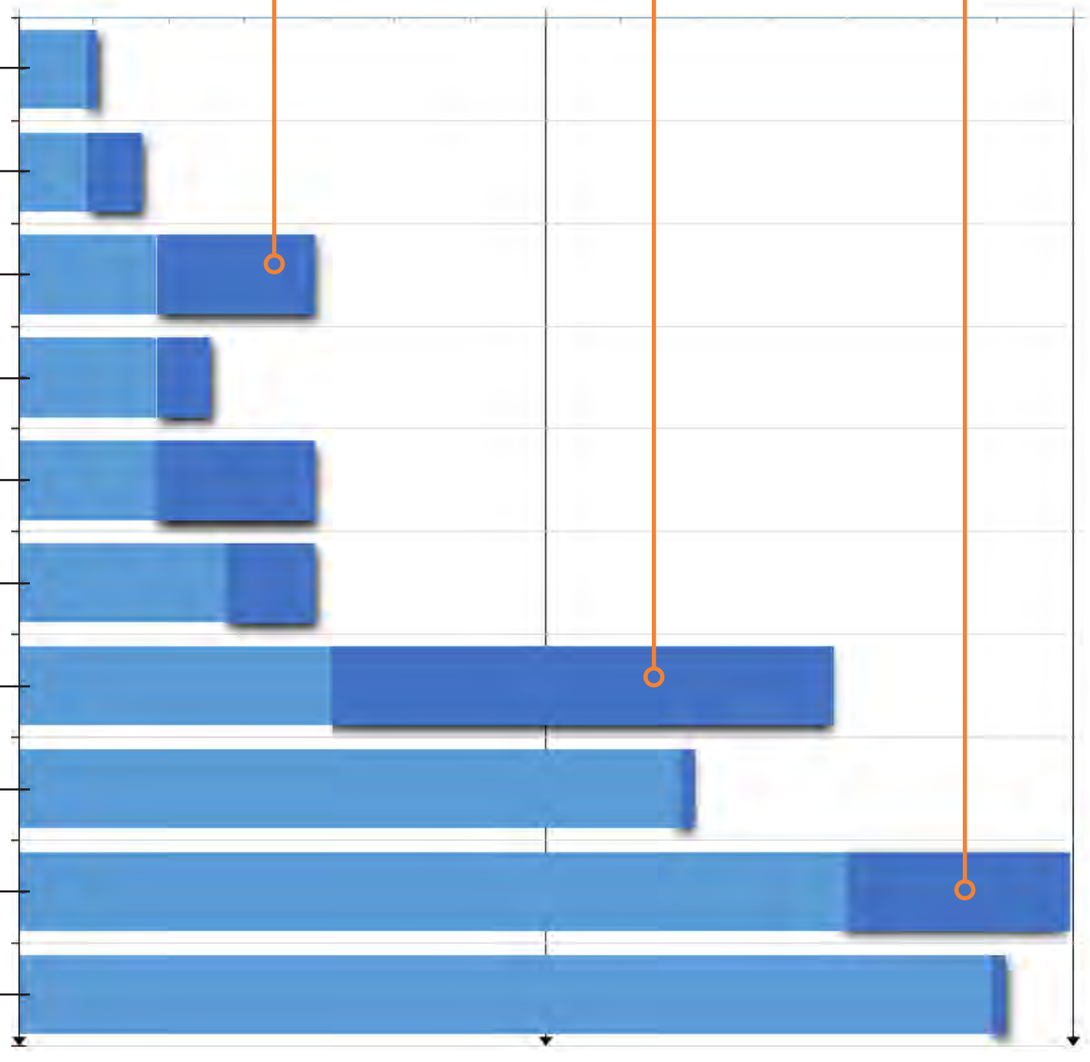
Schedule

The RFQ identifies a June 15, 2026 kick-off date. Our work will be scoped, staffed, and managed accordingly: a project kick-off shortly after selection; existing-conditions assessment and programming running in parallel rather than sequentially; design and cost validation on a defined cadence; and a deliverable schedule we can all commit to. We will actively manage the decision points where CCMoA's input is needed, surfacing those early so they do not become schedule risks. With our extensive experience in design projects lead by committees, boards and the like, it will be important for UNION and CCMoA to work together to define how much input and iteration the CCMoA would like to afford various stakeholders as this does impact schedule. We are happy to accomodate any level of collaboration and input as we develop a fee and more defined schedule if selected.

Building documentation, existing uses, consultant site visits and review of infrastructure, systems, landscape and site. This timeline could vary depending on how much the CCMoA would like to engage in with their board, building committee and stakeholders/ staff. We are providing what we would consider a moderate/ typical level.

2-3 design iterations with architect & landscape architect. This timeline could vary depending on how much collaboration and iteration rounds the CCMoA would like to engage in with their board, building committee and stakeholders/ staff. We are providing what we would consider a moderate/ typical level from our experience.

Preparation of final documents and outline specifications for pricing. Drawing deliverables would include: elevations and plans w/ typical material selections noted, MEP & structural diagrams, landscaping plans w/ typical plantings noted, civil site plan w/ infrastructure outlined.



OWNER/ ARCHITECT AGREEMENT	6/15/26 - 6/15/26
TEAM MOBILIZATION	6/15/26 - 6/26/26
Due Diligence & Programming Phase	6/29/26 - 7/31/26
EXISTING CONDITIONS DOCUMENTATION	6/29/26 - 7/10/26
ONGOING MEETINGS, DATA GATHERING, INTERVIEWS WITH KEY STAKEHOLDERS	
FINDINGS & PROGRAMMING SUMMARY	7/13/26 - 7/31/26
Conceptual/ Early Schematic Design Phase	8/3/26 - 11/13/26
PRESENTATION OF FINAL CONCEPTUAL DESIGN	WEEK OF 10/13/26
Price Estimating Phase	11/16/26 - 12/31/26
PRESENTATION OF PRICING OVERVIEW	WEEK OF 12/15/26

VERIDIAN AT COUNTY FARM, A NET ZERO MIXED-INCOME COMMUNITY, *Ann Arbor, Michigan*

Project Team

UNION STUDIO ARCHITECTURE & COMMUNITY DESIGN, *Providence, Rhode Island*

Team Organizational Chart

CAPE COD MUSEUM OF ART

ARCHITECT

UNION

PARTNER IN CHARGE
Douglas Kallfelz
Co-Founder & Managing Partner

PROJECT LEAD
Kara Babcock
Associate Principal

PROJECT ARCHITECT
Taylor Hughes
Architect

LANDSCAPE ARCHITECT

RYAN ASSOCIATES
LANDSCAPE ARCHITECTURE AND PLANNING

MEPFP

db|HMS

CIVIL ENGINEER

HORSLEY WITTEN GROUP
Sustainable Environmental Solutions

STRUCTURAL ENGINEER

ez engineers
structural engineers

COST ESTIMATOR

ELLANA inc.
Construction Consultants

Douglas Kallfelz AIA, LEED AP, CNU

Co-Founder & Managing Partner

As managing partner at Union, Douglas works directly with client leaders on a wide range of community design, residential, institutional, and civic projects. With more than 30 years of experience across a broad range of client and project types, Douglas brings a unique blend of business acumen, technical expertise, and design skill to those he serves. He has been the primary architect and Principal-in-Charge for many of the firm's award winning affordable housing projects, sustainable communities, civic buildings, student housing, libraries and residences. Douglas blends his project leadership and design responsibilities with overall management and strategic planning for Union. His work embodies a commitment to contextually inspired design and enduring quality as the foundation of lasting value for communities and clients alike.

EDUCATION

Harvard University,
Graduate School of Design
Cambridge, MA
Master in Design Studies, 2003

Syracuse University
Syracuse, NY
Bachelor of Architecture, 1995
Cum laude with Honors

REGISTRATIONS & CERTIFICATIONS

Registered Architect
Licensed in: RI, MA, ME, NH, VT, SC

LEED Accredited Professional

RELEVANT EXPERIENCE

MIDDLEBURY COLLEGE STUDENT HOUSING
Monterey, California

An award-winning rural intervention provides new student residences for Middlebury's prestigious Vermont campus.

WESTMINSTER STREET REVITALIZATION
Providence, Rhode Island

An adaptive reuse, mixed use project that involved the revitalization of three historic buildings, and the design of a new, contextual addition.

TIVERTON PUBLIC LIBRARY
Tiverton, Rhode Island

Complete master planning, programming and building design for a new public library. This library set the bar for new library design in the state.

MIDDLEBURY INSTITUTE FOR INTERNATIONAL STUDIES STUDENT HOUSING
Monterey, California

Rehabilitating a 50-year-old building creates walkable student housing with a more contextually sensitive character.

HAMMETTS WHARF
Newport, RI

Historic waterfront infill. Full design services from masterplanning, entitlement, design and construction.

.

"Meaningful design begins with having a deep respect for the cultural values of the people and communities we serve. Listening first gives the greatest chance of creating buildings and places that enrich lives and strengthen connections."

PROFESSIONAL AFFILIATIONS

American Institute of Architects (AIA)
Member, *Current*
AIARI Architectural Forum
Vice President, *Current*
AIARI Chapter Past President, *2013*

Harvard Alumni Real Estate Board
Board Member, *Current*

Urban Guild
Fellow, *Current*

Congress for New Urbanism (CNU)
Member, *Current*

SPEAKING ENGAGEMENTS

One Cape Summit, 2025 Keynote
Resilient Communities & Attainable Housing
25 years of partnership and transformation

Crafting Resilient Communities:
Lessons learned over 20 years of designing attainable housing in New England
AIA New Jersey, *2023*

East Coast Rising: Shifting Resilience Planning from Guidelines to Implementation
CNU National Conference, *2022*

Finding the "Missing Middle" in Housing
International Builder's Show, *2018*

Intentional Communities: History & New Applications for Clustered Development
Architecture Boston Expo, *2012*

Sustainable Opportunities Across the Transect
CNU New England, *2011*

Cottages on Greene: An Alternative Residential Development for the New Economy
GrowSmartRI, *2009*

Smart Streets for Smart Growth: Rethinking Green Infrastructure in Cities and Towns
EcoBuild, *2009*

COMMUNITY ENGAGEMENT

Warren Rhode Island Planning Board
Board Member 2012-13

ACE RI Mentorship Program
Advisory Board Member

Leadership Rhode Island
Member, *ETA II Class*

Kara Babcock AIA, CNU

Associate Principal

As one of Union's longest-tenured employees, Kara has garnered experience on many of the firm's most challenging architectural and urban design projects, most recently as project manager for the new and award-winning Hammetts Wharf Hotel in Newport, RI. Her project background spans a variety of types and sizes from workforce housing to public libraries, adaptive reuse, and an award-winning research exhibit on sea level rise in historic communities. With her degree in both architecture and fine arts, Kara takes great pride in balancing design aesthetics with the technical aspects that make our built world a reality. She delights in working closely with large, comprehensive project teams to shepherd a concept through to completion and has found the mission-based work at Union Studio to be personally rewarding.

EDUCATION

Roger Williams University
Bristol, RI
Master of Architecture

Roger Williams University
Bristol, RI
Bachelor of Science, Architecture

REGISTRATIONS & CERTIFICATIONS

Registered Architect
Licensed in: RI

RELEVANT EXPERIENCE

TIVERTON PUBLIC LIBRARY
Tiverton, Rhode Island

Complete master planning, programming and building design for a new public library. Referred to as the "Crown Jewel" of the Rhode Island public library system upon it's completion, this library sets the bar for new library design in Rhode Island.

BOYS AND GIRLS CLUBS OF NEWPORT COUNTY
Newport, Rhode Island

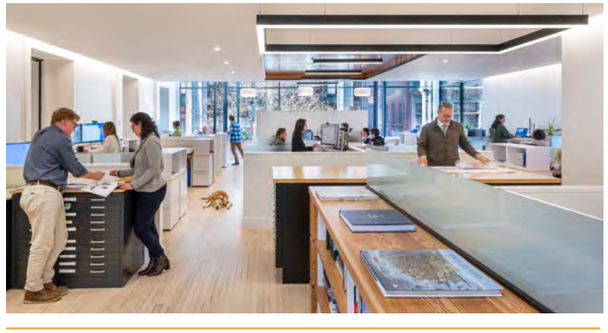
Complete renovation and expansion of the headquarters incorporating childcare center, pool, gymnasium and educational facilities

HAMMETTS WHARF HOTEL
Newport, Rhode Island

Full architectural services from conceptual design to construction administration for a new mixed-use hotel in a historic downtown setting. The site was within a VE flood zone, adaptive construction techniques for sea level rise were implemented.

HYANNIS PUBLIC LIBRARY
Hyannis, Massachusetts

Addition and renovation of the historic Hyannis Public Library that honors its rich history while meeting modern needs.



WESTMINSTER STREET REVITALIZATION
Providence, Rhode Island

An adaptive reuse, mixed use project that involved the revitalization of three historic buildings, and the design of a new, contextual addition.

PROFESSIONAL AFFILIATIONS

American Institute of Architects (AIA)
Member, 2018-*Current*
RI Chapter, Board of Directors, *2018-2020*

Congress for the New Urbanism (CNU)
Member, 2017-*Current*

SPEAKING ENGAGEMENTS

The House of Seven Gables: A case study for historic building and campus adaptation plans
The Preservation for a Changing Climate Conference, *2023*

COMMUNITY ENGAGEMENT

ACE RI Mentor Program
RI Chapter, Board of Directors, *Current*
Mentor for Office Experience Program, Current Mentor, *2011-2012*

Roger Williams University
Frequent guest critic at design studios, *2011-present*

DESIGNxRI - Design Forward Program
Advance Cohort, *Fall 2017*

"We have the privilege of influencing the fabric of spaces and places for everyone and it is our responsibility to ensure they meet the needs and help to overcome the challenges of the communities in which we are working."

Taylor Hughes AIA, CNU

Architect

Committed to a thoughtful, well-researched, and holistic approach to architecture, Taylor's first consideration is for the people who will interact with the spaces she designs. She believes in using her skills as an architect to improve the world and create places with integrity. At Union, Taylor applies this same dedication to every project, from research and programming to client presentations and coordination. Outside of the office, Taylor serves as Vice-President / President Elect on the board of the American Institute of Architects Rhode Island chapter and as co-chair of the chapter's Advocacy committee, which has brought her to the Statehouse in the past year to testify on legislation.

EDUCATION

Roger Williams University
Bristol, RI
Master of Architecture
Honors: summa cum laude

Roger Williams University
Bristol, RI
Bachelor of Architecture

REGISTRATIONS & CERTIFICATIONS

Registered Architect
Licensed in RI

RELEVANT EXPERIENCE

HYANNIS PUBLIC LIBRARY
Hyannis, Massachusetts

An addition and renovation of the historic Hyannis Public Library that honors its rich history while meeting modern needs.

BOYS & GIRLS CLUB OF NEWPORT COUNTY
Newport, Rhode Island

A major renovation and expansion of the historic Thayer School building will revitalize the Boys & Girls Clubs of Newport County and expand vital youth programs.

UNION

VERANDA HOUSE RESTORATION
Nantucket, Massachusetts

After a catastrophic fire, the Veranda House was painstakingly restored to preserve its historic legacy while introducing modern safety and accessibility.

22 RYE STREET LIBRARY
Providence, RI

22 Rye Street reimagines a historic schoolhouse as a vibrant community library and cultural center, expanding educational and creative opportunities for Providence's diverse neighborhoods.

Thoughtful, principled, and committed to architecture that improves our daily lives.

PROFESSIONAL AFFILIATIONS

American Institute of Architects, Rhode Island Chapter
Vice President / President-Elect, 2026-Present
Young Architect Director, 2023-2025

Congress for the New Urbanism (CNU)
2024-Present

COMMUNITY ENGAGEMENT

AIAri
Advocacy Committee Co-Chair, 2025-Present
Honor & Design Awards Committee, 2021-present

AIA Chapters of New England
Design Award Committee, 2022

SPEAKING ENGAGEMENTS

Young Architects Forum: Bridging Generations
AIA25, 2025
Boston, MA

LANDSCAPE ARCHITECT

RYAN ASSOCIATES

LANDSCAPE ARCHITECTURE AND PLANNING

LAURA KNOSP, RLA, LEED AP, ASLA, PRINCIPAL

Laura has over 20 years of experience across a diverse range of project types and scales, from small urban spaces and private homes to large-scale site developments and institutional gardens. She particularly enjoys working with multidisciplinary teams to create innovative solutions.

SELECTED PROJECTS

Ryan Associates, Waltham, MA
The Ramble, New England Botanic Garden, Boylston, MA - Design and project management for new children's garden
Garden Within Reach, New England Botanic Garden, Boylston, MA - Design and project management for fully accessible garden
Accessibility Improvements, New England Botanic Garden, Boylston, MA - PM for new pedestrian circulation and parking expansion
Massell Quad, Brandeis University, Waltham, MA - PM for redesign of new residential quad
Healing Garden, UMass Memorial, Worcester, MA - Design and project management for new hospital healing garden
Faneuil Hall Paving, Boston, MA - Design, documentation, and project management for paving repair at historic monument
Neilson Library, Smith College, Northampton, MA - Design and project management for library renovation and accessibility improvements
Corporate Campus, Norwood, MA - Design, documentation, and project management for new 40-acre campus
The Boston Home, Dorchester, MA - Design and project management for accessible therapeutic garden
Woods Hole Oceanographic Institution, Woods Hole, MA - Design and documentation for new waterfront park and streetscape
Grant's Block, Providence, RI - Site planning and design for urban square
Lagrange Mill, Worcester, MA - Design and documentation for adaptive reuse of historic mill complex
Mass General Brigham Campus, Somerville, MA - Design, documentation, and construction oversight for new urban health care campus

Landworks Studio, Boston, MA
Washington Elms, Cambridge, MA - Project management and existing conditions report for public housing redevelopment
Dareen East Beach, Jubail, Saudi Arabia – Project management and full design services for large waterfront park
Jalmudah Shoreline, Jubail, Saudi Arabia – Concept design for large waterfront park and streetscape

Ground, Inc, Somerville, MA
MassArt Plaza, Boston, MA – Planting design for plaza at new student residential tower
Sowwah Central Park Competition, Abu Dhabi, UAE – Project management and design for international competition

Martha Schwartz Partners, Cambridge, MA
Natick Collection, Natick, MA – Concept design for large commercial landscape and interior
United States Land Port of Entry, Donna, Texas – Concept design for US/Mexico border crossing

EDUCATION

Rhode Island School of Design – Master of Landscape Architecture, 2005
The Evergreen State College – Bachelor of Arts, 1998

AWARDS AND PUBLICATIONS

2025 Article, Rain Gardens at New England Botanic Garden, Ecological Landscape Alliance
2024 Honor Award, Boston Society of Landscape Architects, The Ramble, Ryan Associates
2023 Environmental Impact Award, Boston Society of Architects, The Ramble, Ryan Associates
2022 Honor Award, American Society of Landscape Architects, Mass General Brigham Campus, Ryan Associates
2019 Award of Excellence In Accessible Design, Boston Society of Architects, Garden Within Reach, Ryan Associates
2018 Merit Award, Boston Society of Landscape Architects, Mass General Brigham Campus, Ryan Associates
2015 Honor Award, American Society of Landscape Architects, MassArt Plaza, Ground, Inc.
2008 Citation of Excellence, General Services Administration, United States Land Port of Entry, Martha Schwartz Partners

REGISTRATION

Massachusetts Registered Landscape Architect Registration #1584

VOLUNTEERING

Boston Society of Landscape Architects, Executive Committee, Awards Juror
ACE Mentor

THOMAS R. RYAN, RLA, FASLA, FOUNDER

Tom Ryan, the founder of Ryan Associates, is a master builder of landscapes. He has extensive knowledge of the theory that underpins built landscapes and the practical skills needed to build and maintain them. His work strives to be memorable, contextual, durable, and flexible.

SELECTED PROJECTS

The Embrace, Martin Luther King Jr. Memorial, Boston, MA - Technical advisor to MASS Design for memorial sculpture and plaza
The National Memorial for Peace and Justice, Montgomery, AL - Technical advisor to MASS Design for memorial
Accessibility Improvements, Brandeis University, Waltham, MA - Design and documentation for targeted pedestrian enhancements
Assorted Projects, New England Botanic Garden, Boylston, MA - Design through construction for multiple gardens
Corporate Campus, Norwood, MA - Design, documentation, and construction oversight for corporate campus
Chabad House, Brookline, MA - Design, documentation, and project management for new Synagogue and Cultural Center
Neilson Library, Smith College, Northampton, MA - Site design/development and construction
Grant's Block, Providence, RI - Site planning, design, and documentation for new urban square
Lagrange Mill, Worcester, MA - Design and documentation for adaptive reuse of historic mill complex
Couch Cemetery Expansion, Marshfield, MA - Planner/Landscape Architect for new cemetery
UMass Mt Ida College, Newton, MA - Various campus projects
Tiny Home Community, Worcester, MA - Design for affordable tiny home community
Amerbelle Mill, Vernon, CT - Site planning for mixed-use redevelopment of abandoned mill complex
Mass General Brigham Campus, Somerville, MA - Documentation and construction services for Healthcare facility
Leary Field, Acton, MA - Full services for community gathering space and athletic fields
The Highline, New York, NY - Technical advisor to Field Operations for elevated urban park
Hammett Street Block, Ipswich, MA - Planning for downtown block development of town land
Mount Wachusett College, Gardner, MA - Masterplanning for campus expansion

EDUCATION

Harvard University, Graduate School of Design - Master of Landscape Architecture, 1979
University of Wisconsin, School of Agriculture & Life Science - Bachelor of Science in Landscape Architecture, 1975

AWARDS, PUBLICATIONS, PRESENTATIONS

2024 The Gold Medal, Massachusetts Horticultural Society
2024 Honor Award, Boston Society of Landscape Architects, The Ramble
2023 Environmental Impact Award, Boston Society of Architects, The Ramble
2022 Honor Award, American Society of Landscape Architects, Mass General Brigham Campus
2022 Presenter, THE OTHER TECH, Forward-thinking approaches to Construction Documentation and Administration
2020 William D. Smith Award for Accessible Design, Boston Society of Architects, Tower Hill Botanic Garden
2018 Merit Award, Boston Society of Landscape Architects, Mass General Brigham Campus
2018 Presenter, Enduring Landscapes: Stewardship from Design to Maintenance and Management
2017 BRAGB Awards, Best Rental Community, Best + Community, and Judges' Choice awards
2013-14 Presenter, Landscape Forensics: Why Things Fail
2013 Presenter, Contract Documents in a Digital Age
2013 Presenter, Webinar on Forgiving Landscape Details for Ease of Construction
2011 Published Landscape Architectural Detailing for Wiley Publishing
2008 Arbor Day Foundation & NAHB: Building w/ Trees Award of Excellence – The Woodlands

TEACHING

2021-2022 Northeastern University, Lecturer
2012 - 2022 Harvard University, Graduate School of Design, Landscape Architecture Program, Instructor in Grading & Drainage, Detailing & Documentation (also in 1981, 1986, 1995)
2008 - 2012 University of Pennsylvania, Landscape Architecture Program, Instructor
2004 SUNY ESF Syracuse, Landscape Architecture Program, Instructor

REGISTRATION

Massachusetts Registered Landscape Architect Registration #590

MEPFP

Benjamin Rubach

P.E., LEED AP, QCxP

Principal | Project Manager

PROFILE

Ben Rubach, Principal at dbHMS, has been applying his hands-on knowledge of diverse engineering principles for over 20 years. His background includes plumbing, HVAC, and fire protection with specialized experience in the health care and municipal markets, including central plant expansion and modernization analysis. Ben's projects cover multiple engineering disciplines and sectors. He has managed multi- disciplined teams, designed systems, and played key roles in major regional and national projects.

SELECTED PROJECT EXPERIENCE

INSTITUTIONAL

South Side Community Art Center – Chicago, IL
Chicago Public Library Legler Branch – Chicago, IL
Broadway Youth Center – Chicago, IL
Riis Park Fieldhouse PGL Central Business District Sub Shop – Chicago, IL
Marion Readiness Center – Marion, IL
United LSG Secondary Catering Facility – Des Plaines, IL
Manteno Veterans Home (Prime) – Manteno IL
Reed Dunning Comfort Station – Chicago, IL
UIC Jefferson and Henry Halls Feasibility Study – Chicago, IL
Veterans' Affairs Medical Center, Pharmacy – Chicago, IL
The Women's Treatment Center – Chicago, IL
Carle Foundation Hospital, Mills Breast Cancer Institute – Urbana, IL
Advocate South Suburban Hospital, Same Day Surgery Center – Chicago, IL
Argonne Fire House – Lemont, IL
Argonne Building 333 Firehouse – Lemont, IL
Argonne Fire Safety Improvement Program – Lemont, IL
Argonne Fire Station Sleeping Quarters – Lemont, IL
City of Evanston, HVAC Improvements – Evanston, IL
Department of Military Affairs, North Riverside Armory - North Riverside, IL
Milan Readiness Center CDB – Milan, IL (LEED Silver)
Metra Headquarters – Chicago, IL
CDB Emergency Boiler Replacement – Chicago, IL
CDB Manteno Veteran's Home – Manteno, IL
CDB Chester Mental Health Center – Chester, IL
CPD Riis Park Fieldhouse – Chicago, IL
Maplewood Park Fieldhouse Expansion – Chicago, IL
POAH Harvey YMCA Renovations – Chicago, IL

EDUCATIONAL

Capital Development Board, Rock Valley College, Arts Instructional Center – Rockford, IL
The West Side Center for Arts and Technology – Chicago, IL (LEED Silver)
City Colleges of Chicago Olive Harvey Labs PGL Central Business District Sub Shop – Chicago, IL
The University of Chicago Theological Seminary – Chicago, IL (LEED Gold)
The University of Chicago Saieh Hall for Economics Renovation – Chicago, IL (LEED Gold)
The University of Chicago ATS Replacement Facility – Chicago, IL (LEED Silver)
The University of Chicago Administration Building – Chicago, IL
The University of Chicago Neubauer Family Collegium for Cultural Society– Chicago, IL
The University of Chicago Axelrod – Chicago, IL
The University of Chicago Center for Gender and Race– Chicago, IL
The University of Chicago Young Memorial Hall – Chicago, IL
The University of Chicago Maroon Financial Credit Union– Chicago, IL
The University of Chicago School of Social Service– Chicago, IL
University of Illinois at Chicago General Science and Engineering Laboratory Interior Improvements– Chicago, IL
University of Illinois at Chicago CUPPA Learning Laboratory– Chicago, IL
University of Illinois at Chicago Daley Library Renovation– Chicago, IL
University of Illinois at Chicago Morrill Hall– Chicago, IL
University of Illinois at Chicago Turner Hall– Chicago, IL
University of Illinois Hospital Clinical Decision Unit – Urbana, IL
Northwestern University Abbott Hall– Evanston, IL
Northwestern University Seabury-Western Theological Seminary– Evanston, IL
Northwestern University Crowe Hall– Evanston, IL
Northwestern University Tri Delta Upgrades – Evanston, IL
Knox College Green Oaks Facility – Victoria, IL
Joliet Junior College, Facilities Building – Joliet, IL
The Innovation Project at Harper Court – Chicago, IL
Chicago Public School Belmont-Cragin Elementary Sumner Elementary School – Chicago, IL
Chicago Public School Prosser Career Academy High School – Chicago, IL

EDUCATION
Bachelor of Science,
Architectural Engineering,
Milwaukee School of
Engineering, 2003

PROFESSIONAL AFFILIATIONS
American Society of Plumbing
Engineers

REGISTRATION & CERTIFICATION
Registered Professional Engineer: IL,
MI, IA, IN, WI, MO, OH, PA, TN

LEED Accredited Professional

Qualified Process Commissioning
Professional

E-MAIL
brubach@dbhms.com

David Siegel

P.E.

Senior Mechanical Engineer

PROFILE

David Siegel, Senior Mechanical Engineer brings over 15 years of experience in the design, coordination, and commissioning mechanical building systems. Proven expertise leading multidisciplinary projects across educational, commercial, institutional, industrial, healthcare, and residential sectors. Known for delivering innovative, energy-efficient solutions that meet client needs, regulatory standards, and budget constraints—on time and on scope. Adept at managing teams, mentoring junior engineers, and driving project success from concept through completion.

SELECTED PROJECT EXPERIENCE

INSTITUTIONAL

North Wilmington Public Library - Wilmington, DE
Beverly Arts Center - Chicago, IL
Abbott Residence, Museum and Conference Center - Abbott Park, IL
FDR Park Welcome Center - Philadelphia, PA
North Wilmington Library, Campus Hub - Wilmington, DE
O'Hare International Airport, American Airlines Concourse L Admirals Club - Chicago, IL
O'Hare International Airport, American Airlines Concourse K Extension Upgrades - Chicago, IL
O'Hare International Airport, Airport Maintenance Complex - Chicago, IL
O'Hare International Airport, Vehicle Holding Area - Chicago, IL
Midway Airport, TSA Bridge - Chicago, IL
Gateway Aurora, Substance Abuse Treatment Center - Aurora, IL
YWCA Evanston North Shore - Evanston, IL
Broadway Youth Center Howard Brown Health - Chicago, IL
North Lawndale Employment Network - Chicago, IL
Promedica Hospital Heart Rhythm Center - Toledo, OH
University of Chicago Medicine Electrophysiology Department - Chicago, IL
University of Illinois Chicago, Medical Center Electrophysiology Lab - Chicago, IL
Kenneth Moy, DuPage Care Center - Wheaton, IL
DuPage County Animal Service - Wheaton, IL
City of Evanston, Public Library 2015-17 HVAC Upgrades - Evanston, IL
City of Evanston, Public Library Building Reserve Analysis - Evanston, IL
City of Evanston, HVAC Improvement Projects - Evanston, IL
Park District of Oak Park, Facilities Assessment - Oak Park, IL
Department of Military Affairs, North Riverside Armory - North Riverside, IL

EDUCATIONAL

Germantown Friends School, All School Commons & Center for the Arts - Philadelphia, PA
Rock Valley College Arts Instructional Center - CDB - Rockford, IL (LEED Gold Target)
Trinity Christian College Theater Arts Building - Palos Heights, IL
University of Illinois at Urbana-Champaign, Business Instructional Facility, 4th Floor Office Addition - Champaign, IL
University of Illinois at Urbana-Champaign, Speech and Hearing Building - Champaign, IL
University of Illinois at Urbana-Champaign, Smith Memorial Hall Renovation - Urbana, IL
University of Illinois at Urbana-Champaign, Public Safety Building - Urbana, IL
University of Illinois at Urbana-Champaign, Pennsylvania Residence Halls Renovation - Urbana, IL
University of Illinois at Urbana-Champaign, Education Building - Champaign, IL
University of Illinois at Urbana-Champaign, ISR Residences and Dining Complex - Urbana, IL
University of Illinois at Urbana-Champaign, Irwin Center for Doctoral Studies in Business - Champaign, IL
University of Illinois at Urbana-Champaign, Loomis Laboratory - Urbana, IL
University of Illinois at Urbana-Champaign, Huff Hall - Champaign, IL
University of Illinois at Urbana-Champaign, North Campus Parking Deck and USGS Addition - Urbana, IL
University of Chicago, Saieh Hall for Economics - Chicago, IL
University of Chicago, Office of Clinical Research Relocation - Chicago, IL
University of Chicago, Institute of Politics - Chicago, IL
University of Chicago, 5733 S. University - Chicago, IL
Northwestern University, 640 Lincoln Complex Studies - Evanston, IL
North Park University Nyval Hall - Chicago, IL
Moody Bible Institute Chapman Center - Chicago, IL
University of Illinois at Springfield, Public Safety Building - Springfield, IL
Lake Land College, Luther Student Center - Mattoon, IL (LEED Silver)
Northeastern Illinois University, Carruthers Center for Inner City Studies (CCICS) - Chicago, IL
St. Augustine Institute for Workforce Education - Chicago, IL
Kaplan College - Cincinnati, OH - Indianapolis, IN
Lincoln Land College, Student Services - Springfield , IL
Northeastern Illinois University, Upgrade HVAC System Science Building - Chicago, IL
Northwestern University, Softball Stadium - Evanston, IL
Carmel Catholic High School, Student Center Expansion - Mundelein, IL
Chicago Public Schools, Prosser Career Academy - Chicago, IL
Chicago Public Schools, Simeon Career Academy High School - Chicago, IL

EDUCATION
Bachelor of Science,
Mechanical Engineering,
University of Illinois at
Urbana-Champaign, 1993

PROFESSIONAL AFFILIATIONS
American Society of Heating,
Refrigeration And Air Conditioning
Engineers (ASHRAE)

REGISTRATION & CERTIFICATION
Registered Professional Engineer, IL

E-MAIL
dsiegel@dbhms.com

Sydney Durr

P.E.

Electrical Engineer

PROFILE

Sydney Durr is a licensed electrical engineer at dbHMS who specializes in power distribution, lighting, and fire alarm system design. Having started as an intern at dbHMS, Sydney has grown into her role and now functions as the lead electrical engineer on many projects, bringing her focus on collaboration and detail-oriented design to drive these projects' successes.

In addition to her role in design engineering, Sydney leads the onboarding for new employees within the electrical department. She has facilitated the creation and continued development of a full training program and has served as a mentor for many interns and entry level engineers to the department.

Sydney also leads the development of workflow improvements within the electrical group, working with others to create new tools and increase efficiency across the team.

SELECTED PROJECT EXPERIENCE

INSTITUTIONAL

The Children's Theater of Cincinnati - Cincinnati, OH
Comcast eSports - Philadelphia, PA
Venue East Amphitheater - Cincinnati, OH
Women's Leadership Center - Lake Geneva, WI
YWCA Evanston Northshore - Evanston, IL
Skokie Courthouse ADA – Accessible Courtroom - Skokie, IL

EDUCATIONAL

Spelman College Mary Schmidt Campbell Center for Innovation & the Arts - Atlanta, GA
Temple University, Tyler School of Art - Philadelphia, PA
The University of Illinois Urbana-Champaign, Wymer Hall - Champaign, IL (LEED v4 Gold)
The University of Illinois Urbana-Champaign, Integrated Bioprocessing Research Lab Addition - Urbana, IL
The University of Chicago, New High Bay Building - Chicago, IL (LEED Silver)
Illinois Institute of Technology, Cunningham Hall - Chicago, IL
Illinois Institute of Technology, Carman Hall - Chicago, IL
University of Michigan Liberty Annex Renovation - Ann Arbor, MI
Illinois State University New STEM Building - Normal, IL
University of Chicago – Wexford Science + Technology Building - Chicago, IL
Evanston Township High School District 202 Centennial Projects - Evanston, IL
Flagship Charter High School Campus - Des Moines, IA
Chicago Public Schools, Sauganash Elementary Annex - Chicago, IL (LEED Silver)
Prairie Crossing Charter School - Grayslake, IL

RESIDENTIAL

333 N Water Street - Milwaukee, WI
Lawson House - Chicago, IL (LEED Gold)
7 Van Buren - Oak Park, IL
Southbridge - Chicago, IL
The Edison - Milwaukee, WI
Thrive I Englewood - Chicago, IL
Villa Park Multifamily Passive House - Villa Park, IL
534 Pershing - Chicago, IL
3 Jerome Smith - Provincetown, MA
Lakeshore East Parcel C - Chicago, IL
79th and Exchange Residential South - Chicago, IL
Lathrop Homes Revitalization - Chicago, IL
Oak Park Residence Corporation - Oak Park, IL

HOSPITALITY

The St. Regis - Chicago, IL (LEED Silver)
Lawson House YMCA - Chicago, IL

INDUSTRIAL

PGL South Shop Field Service Center - Chicago, IL
LIDL P4-1400 Maintenance - Aberdeen, MD

COMMERCIAL

1000 W Carroll Ave (350 N Morgan) - Chicago, IL
6001 North Cass - Detroit, MI

EDUCATION

Bachelor of Science,
Architectural Engineering,
Illinois Institute of Technology,
2019

REGISTRATION & CERTIFICATION

Registered Professional Engineer:
IL, MI, WI, OH, PA

E-MAIL

sdurr@dbhms.com

Lewis Ndikumana

P.E.

Plumbing Engineer

PROFILE

Lewis Ndikumana is a plumbing and fire protection engineer at dbHMS with five years of experience. Compelled by architecture's ability to cater to the needs of distinct users, Lewis was drawn to dbHMS' diverse portfolio and dedication to delivering quality projects to its clients. During his time at dbHMS, Lewis has worked on multifamily residential, higher education, commercial, and industrial projects.

Lewis holds a bachelor's degree in architectural engineering from the Illinois Institute of Technology. Having grown up in Burundi, with stints in England and Côte d'Ivoire, Lewis brings an international perspective to his understanding of the built environment.

SELECTED PROJECT EXPERIENCE

EDUCATIONAL

Spelman College Center for Innovation & Arts - Atlanta, Georgia
Art In Motion - Chicago, IL
Academy for Global Citizenship - Chicago, IL (Living Building Challenge)
University of Illinois Chicago, Grenshaw Street Parking Structure - Chicago, IL
The University of Chicago 5855 S University – Chicago, IL
Northwestern University Kirkpatrick Stadium - Evanston IL
The University of Chicago, BSD Laboratory Renovations - Chicago, IL
The Innovation Project at Harper Court - Chicago, IL
Illinois Institute of Technology, Carman Hall - Chicago, IL
Heartland Community College – Agriculture Complex - Normal, IL
The Institute for the Study of Ancient Cultures (ISAC) - Chicago, IL

RESIDENTIAL

Oak Park Residences, 7 Van Buren - Oak Park, IL (Net Zero Building)
Garfield Green C40 - Chicago, IL (Passive House)
Thrive Englewood Apartments - Chicago, IL
The Boulevard at Ogden Commons Living - Chicago, IL
Lathrop Apartments - Chicago, IL
Villa Park Multifamily Passive House - Villa Park, IL
oLiv Columbia - Columbia, SC
Ogden Commons - Chicago, IL

COMMERCIAL

Intrepid Avenue Parking Structure - Philadelphia, PA
800 West Fulton Market - Chicago, IL (LEED Platinum, WELL Certified)
Hyde Park Labs - Chicago, IL
TCA Health Nutrition Center - Chicago, IL

EDUCATION

B.S Architectural Engineering,
Illinois Institute of Technology,
2021

B.A Liberal Arts Engineering,
Wheaton College,
2021

A.S Computer Aided Drafting & Design,
Baltimore City Community College,
2016

REGISTRATION & CERTIFICATION

Registered Professional Engineer, IL

PROFESSIONAL AFFILIATIONS

ASPE (American Society of Plumbing Engineers) - Chicago Chapter.

E-MAIL

indikumana@dbhms.com

CIVIL ENGINEER

HORSLEY WITTEN GROUP

Sustainable Environmental Solutions

Jonathan Ford, P.E., NCI

Principal – Community Design
jford@horsleywitten.com

Areas of Expertise

Civil Engineering
Urban Design
Mobility & Complete Street Design
Smart Growth / Low Impact Development
Land Use Planning

Professional Registrations & Affiliations

Professional Engineer: MA, RI, CT, FL
National Charrette Institute (NCI) Charrette Planner Certification
Co-founder, Current Vice President: New England Chapter of the Congress for the New Urbanism
Board of Directors: Seekonk River Alliance
Board of Directors: Blackstone Parks Conservancy
Knight Fellow in Community Building, University of Miami School of Architecture

Academic Background

Bachelor of Science, Civil Engineering: University of Notre Dame

Professional Experience

Horsley Witten Group, Inc., Senior Project Manager - Community Design, 2014 to present
Morris Beacon Design, LLC, Principal and Founder, 2006 to 2014
Nitsch Engineering, Project Engineer, 2002 to 2006

Horsley Witten Group
Sustainable Environmental Solutions

Jon has over 25 years of experience as a civil engineering and neighborhood planning innovator and is a recognized leader in the area of New Urbanist planning and engineering. Jon is a 2006 Knight Fellow in Community Building at the University of Miami's School of Architecture and a co-founder of the New England Chapter of the Congress for the New Urbanism. Jon's project designs have won numerous local and national awards including multiple CNU Charter Awards, the Rudy Bruner Award for Urban Excellence, and the Boston Society of Landscape Architects Honor Award.

KEY PROJECTS

Montpelier Golf Course Redevelopment, Montpelier, VT
Led urban design and infrastructure planning to support Chinburg Properties' proposal to redevelop approximately 20 acres of the City's municipal golf course property. The redevelopment proposal includes 310 residential units, 10,000 sf of retail, civic spaces, and ecological landscape elements – all designed as a vibrant, walkable, mixed-income neighborhood.

Paddock Affordable Housing Development, Pawtucket, RI
Led urban design, infrastructure planning, site/civil design, and landscape architecture for redevelopment of a vacant 9.8-acre site to include 96 affordable residential units and associated civic spaces and infrastructure.

Coastal Florida Hurricane Recovery and Resiliency Partnership Project, Sanibel, Fort Myers Beach, and Fort Myers, FL
Directed design for an interdisciplinary team under contract with EPA to assist three communities to develop a variety of recovery and resiliency projects in the aftermath of Hurricane Ian. Projects included neighborhood mobility plans, resilient park and open space designs, neighborhood-scale flood control improvements, urban design and conceptual engineering for redevelopment projects, and designs for a variety of green infrastructure practices.

Woonasquatucket Vision Plan and Greenway, Providence, RI
Led infrastructure and placemaking design for the Woonasquatucket Vision Plan and Woonasquatucket Greenway improvements. Phase 1 Greenway improvements include a one-mile separated urban trail connecting Providence Place Mall to Eagle Square, multiple new pocket parks, green infrastructure, tree planting, and a kayak launch. Phase 1 construction was completed in 2026.

Plan Cruz Bay, St. John, USVI
Developed a community-led plan for recovery from the two back-to-back Category 5 hurricanes in 2017. The plan guides rebuilding, preservation of community character, and shaping of public spaces to benefit St. John for generations to come. HW led the project collaborating with Dover, Kohl & Partners, with special focus on infrastructure, public realm, and resiliency elements of the plan. The outcomes are designed as a supplement to the Department of Planning and Natural Resources' HW-led Comprehensive Land and Water Use Plan completed in 2024.

Greenbush Transit-Oriented Development, Scituate, MA
Led site planning, civil engineering, and landscape architecture for redevelopment of portions of the MBTA commuter rail parking lot to build a new village center consisting of 78 residential units and 10,000 sq. ft. of commercial space.

Jonathan Ford, P.E., NCI
Principal – Community Design
jford@horsleywitten.com

Horsley Witten Group
Sustainable Environmental Solutions

Barbara Jordan II, Providence, RI
Led site planning, civil engineering, and landscape architecture design for construction of over 80 affordable housing units in 12 buildings on multiple sites in South Providence. Site improvements include upgraded parking areas, utilities, green stormwater infrastructure, and landscape amenities. Barbara Jordan II is one of dozens of HW affordable housing projects in Providence in the last 15 years, constructing many hundreds of sorely needed affordable housing units in the City.

Panama City Downtown Vision and Neighborhood Plans
Collaborated with Dover, Kohl and Partners on the Panama City Strategic Vision for Downtown and its Waterfront and Neighborhoods Plan for Glenwood, Millville, and St. Andrews as part of the city-wide Hurricane Michael Recovery Planning Project. Led sustainability and resilient infrastructure planning and design for each neighborhood fitting into the community vision for future development and preservation, sustainable building, connectivity, and gathering spaces. The Downtown Vision Plan won a 2020 CNU Charter Award.

Cochecho Waterfront Development, Dover, NH
Collaborated with Union Studio to produce a community vision and development plan for the Cochecho Waterfront Site, a 21-acre City owned brownfield property across the river from downtown Dover. Currently leading a 6-consultant team to produce construction documents for public improvements including new streets and a riverfront park, with special focus on green infrastructure, pedestrian-oriented street design, earthwork analysis, and shoreline design to plan for climate change.

Chattanooga West End
Collaborated with Dover, Kohl and Partners to develop a Master Land Use Plan for Chattanooga's West End, consisting of 95 acres of industrial oriented land with over ¾ mile of frontage on the Tennessee River. Led the infrastructure design and public realm elements of the plan setting a physical framework for the West End's evolution into Chattanooga's next vibrant, mixed-use neighborhood, including a riverfront nature park, streetcar line, and urban canal system woven through the proposed street network.

Seekonk River Revitalization Initiative & Crook Point Bridge Design Competition, Providence, RI
Led planning and civil engineering tasks as part of a community led initiative to improve a three-quarters of a mile stretch of the Seekonk Riverfront in Providence. Developed concepts that include green infrastructure, complete streets design, and plaza and boat launch improvements to increase public access to the water. Part of a 3-member team that created the winning City of Providence Crook Point Bascule Bridge design competition vision, selected in 2021 from almost 80 international proposals.

Sewanee Village Implementation Plan, University of the South, Sewanee, TN
Updated the Implementation Plan for the 10+ acre Village to integrate sustainable neighborhood design principles and green infrastructure, including detailed concept plans for four blocks.

Plan West Ashley, Charleston, SC
Collaborated with Dover Kohl and Partners to develop Plan West Ashley, a community vision and plan for the West Ashley area of Charleston, South Carolina - home to over half of Charleston's population. Assisted with the development of broad policies and specific actions to enhance quality of life and protect the area's historic, cultural, and natural environment. Led the infrastructure, sustainability, climate resiliency, and open space elements of the plan.

Brian Kuchar, RLA, P.E., LEED AP

Principal/Principal Landscape Architect/Civil Engineer
bkuchar@horsleywitten.com

Areas of Expertise
Landscape Architecture
Civil Engineering
Sustainable Site Design
Smart Growth/Low Impact Development
Stormwater & Wastewater Management
Green Infrastructure
Ecological Restoration
Meeting Facilitation
Training
Construction Administration
Surveying

Professional Registrations
Professional Engineer: RI #8776 (2006)
Registered Landscape Architect:
MA #1592 (2006)
RI #372 (2003)
LEED AP

Academic Background
Bachelor of Landscape Architecture, University of Rhode Island
Bachelor of Science, Civil/Environmental Engineering Worcester Polytechnic Institute

Professional Experience
Horsley Witten Group, Inc., Associate Principal & Senior Landscape Architect/ Civil Engineer, 2007-Present
Northeast Engineers and Consultants, Inc., Project Manager/Senior Landscape Architect, 2006-2007
University of Rhode Island, Adjunct Professor, 2002-2007
Frisella Engineering, Inc., Project Manager, 2003-2006
William Warner Architects and Planners LTD, Landscape Architect, 2001-2003
City of Newport, Rhode Island, Planning Department Intern, 2000-2001
NES, Inc., Site Engineer, 1993-1998

Horsley Witten Group
Sustainable Environmental Solutions

Brian has 28 years of experience in the combined fields of landscape architecture and civil engineering. Brian's passion for the preservation of the natural environment provides the foundation for all his design work. He has collaborated with the EPA on the development a handbook for urban green infrastructure and stormwater retrofits as part of the EPA's Green Infrastructure Municipal Handbook Series. Brian has presented at numerous training workshops and conferences and served as an adjunct professor in the Landscape Architecture Department at the University of Rhode Island.

KEY PROJECTS

Mashpee Commons - Mixed Use Affordable Housing Development, Mashpee, MA
Principal-in-charge for multi-year, phased site design of pedestrian oriented 257-unit affordable housing neighborhood. Providing engineering and landscape design oversight for an integrated site design.

Narragansett Bay Commission (NBC) Green Stormwater Infrastructure - Combined Sewer Overflow (CSO) Management, Central Falls, RI
Lead designer for green stormwater infrastructure (GSI) measures in dozens of locations in Central Falls. Designed roadside bump-outs and biostrips, enhanced tree trenches, bioretention areas, sand filters, pervious pavement, and pavement removal.

University of Rhode Island, Kingston Campus Infrastructure Improvement Projects, Kingston, RI
Project Manager for an on-call engineering and landscape services contract with the University. Managed a range of projects that included design and construction oversight services for various capital improvements.

Boston Parks and Recreation Department (BPRD), Green Infrastructure (GI) Design and Implementation Guide, Boston, MA
Project Manager for the development of a comprehensive GI design guide. Developed and designed content for an award-winning document that outlines BPRD GI goals and objectives and serves as a design tool to assist with implementation of GI within the Boston parks system.

Boston Water and Sewer Commission (BWSC) Green Infrastructure Retrofits at Boston Public Schools, Boston, MA
Lead designer for innovative GI practices constructed at five existing Boston public schools. Established pilot GI practices that will serve as demonstrations for future redevelopment and stormwater improvements at Boston public schools (BPS) throughout the City.

Henderson Boathouse Parking Lot Retrofit, Northeastern University, Boston, MA
Senior Landscape Architect/Project Manager for a multidisciplinary team hired by the University to redesign the parking area and building entrance space for the Henderson Boathouse. Focusing team efforts on opportunities to incorporate GI practices into the overall design.

Brian Kuchar, RLA, P.E., LEED AP
Principal/Principal Landscape Architect/Civil Engineer
bkuchar@horsleywitten.com

Horsley Witten Group
Sustainable Environmental Solutions

Iron Hill Park - Conceptual Design and Master Plan, Weymouth, MA
Principal-in-Charge for the restoration of a degraded park and herring run fish ladder. Improvements included gateway to the Back River Trail, pathways, boardwalk and overlook, green stormwater infrastructure, parking and landscape restoration.

223/261 Thatcher Street - Affordable Housing Development, Brockton, MA
Project Manager for this redevelopment, 40R affordable housing development. The project includes the conversion of and existing covent located on the property since the 1940s-to-175-unit mixed income residential development in a campus like setting. The development includes three new buildings and the conversion of the convent to apartment rentals. Responsible for the site design, permitting, public presentations with key stakeholders and permitting agencies, construction documents and construction administration.

East End Veterans Memorial Park Design, Peabody, MA
Managed design and project coordination for a brownfield redevelopment project including site remediation of contaminated soil, wetland mitigation, and site and landscape design. Developed the park design to provide flood storage during large rain events.

Cape View Way - Affordable Housing Development, Mashpee, MA
Project Manager and Lead Designer for an environmentally sustainable 40B affordable housing development. The development included 42 rental units located in one building on a 2.9-acre site. Oversaw the site and landscape design, permitting, public presentations, construction documents and construction administration. This project included the submission for a MassWorks grant to fund the upgrade on the town water main.

Cocheco Waterfront Development, Dover, New Hampshire
Senior Engineer/Landscape Architect for the conceptual design and vision plan for waterfront development. Assisted with the development of green infrastructure strategies and shoreline design into the open space plan to address climate change and sea level rise.

Norman Bird Sanctuary, Middletown, RI
Project Manager for the development of a Facilities Master Plan that includes trail, plant community and drainage assessments, to identify future investments and management opportunities for the property's campus facilities, trail network, grounds and environmental resources.

HorsleyWitten.com @HorsleyWittenGroup Horsley Witten Group, Inc.

Michael Easler, RLA

Senior Landscape Architect
measler@horsleywitten.com

Areas of Expertise
Landscape Architecture
Site Planning and Design
Master Planning
Graphic Services
Green Infrastructure Design
Stormwater Management
Botanical Knowledge

Professional Registrations & Affiliations
Registered Landscape Architect, MA

President, American Society of Landscape Architects (ASLA), Rhode Island Chapter

Member, Congress for New Urbanism (CNU), Rhode Island Chapter

Academic Background
Masters in Landscape Architecture, Harvard Graduate School of Design

Bachelor of Environmental Design, Minor in Sustainability Studies, Univeristy of Minnesota

Professional Experience
Horsley Witten Group, Inc., Project Manager, January 2023 to Present

Weston & Sampson , Project Manager and Designer, 2012 to 2023

Northeastern University College of Arts, Media, and Design, Course Lecturer 2016

Offshoots Inc., Landscape Designer, 2014

Horsley Witten Group
Sustainable Environmental Solutions

Michael Easler has 12 years of professional experience in Landscape Architecture and is driven to strengthen the connection and integration of the natural and built environment. Mike works on projects that integrate public open space and green infrastructure into neighborhood and urban contexts to create green networks for surrounding communities and natural systems. He provides landscape design services to a variety of private and public entities including master planning, planting and botanical design, graphics, permitting, construction documentation and administration. His past work includes public recreation areas such as parks and trails, university campuses, stormwater planning, and streetscape design.

KEY PROJECTS

Red River Valley Preserve Master Plan, Harwich: Served as project manager and lead designer for the Harwich Conservation Trust, coordinating with various architects and entities to create a new headquarters and public trail system, integrating green infrastructure, accessiblity, education, and habitat preservation into a multi-functional space.

Stormwater Retrofits at Public Boat Ramps within Cape Cod, MA: Led landscape design for multiple boat ramp retrofits to reduce stormwater pollution and habitat degradation. Supported public outreach and permitting, producing 100% construction documents and cost estimates.

Stormwater Design and Implementation, Yarmouth, MA: Collaborated with the Town and Association to Preserve Cape Cod on five priority site designs. Produced 90% construction documents and cost estimates for two sites, supporting public outreach and permitting.

Climate Adaptations Assessments and Planning, House of the 7 Gables, Salem: Coordinated site design and phasing for a climate adaptation plan addressing stormwater, drainage, utilities, sea wall, and shoreline treatments. Included sea level rise analysis and building adaptations to support museum funding efforts.

Stormwater Management Master Plan & Preservation, Strawbery Banke Museum, Portsmouth, NH: Developed site design and analysis for a climate adaptation plan using green infrastructure to enhance stormwater management and assess long-term sea level rise vulnerability. Created conceptual designs for stormwater best practices to aid fund-raising.

Seacoast Science Center, Rye, NH: Developed site design and sea level rise analysis for a climate-adapted museum campus, incorporating historic fortifications, existing trails and park spaces, and implementing improved access, viewsheds, coastal protection and site design elements using the Science Center's sustainability goals.

Hurld Park, Woburn: Provided design services for an environmentally sensitive park that balances human and environmental interaction by creating spaces for people, naturalizing the on-site stream, treating surrounding road stormwater, and expanding native vegetation communities to improve habitat. Developed and revised concepts to support public meetings and outreach.

James Street Eco-Campus Hub, Peabody, MA: Served as a designer for the James Street Hub, providing connectivity and greenspace improvements for residents. Designs integrated stormwater management into the user experience with walkway improvements and educational signage. Aided in conceptual designs and construction documents.

Michael Easler, RLA

Senior Landscape Architect
measler@horsleywitten.com

Horsley Witten Group
Sustainable Environmental Solutions

KEY PROJECTS PRIOR TO HORSLEY WITTEN

Coes Reservoir Accessible Trail, Worcester, MA: Provided design and project management services for an environmentally sensitive trail improvement and boardwalk that provided universal access while engaging both human and environmental elements within the linear park space. Work included a 1,200 LF boardwalk with nature classroom, raised amphitheater, fishing pier, and bird blind, while expanding existing wetlands and incorporating improved wetland function, while expanding native vegetation communities to improve habitat. Work included public outreach, permitting, concept development, construction documentation, and construction management.

Coes Reservoir Beach, Worcester, MA: Provided design and project management services for an environmentally sensitive access improvements, including parking, ADA compliant pathways, and an accessible kayak launch, as well as secured storage for kayak and canoe rentals, and shade and seating for all users.

Centennial Beach, Hudson, MA: Provided design and project management services for a town beach providing a site-specific and environmentally conscious design, providing stormwater management and access improvements. Work included the siting and utility coordination of two prefabricated buildings, parking lot with integrated stormwater treatment, accessible walkway, pervious emergency access, and a greatly improved user experience. Work included public outreach, permitting, concept development, construction documentation, and construction management.

Malcolm X Park, Boston, MA: Provided design and project management services for redesign of the historically significant and unique park. With strong public outreach, the design provides much needed access and use improvements for the historically underserved community. Work included the development of an internally accessible route to all major park elements across more than 60' of grade change, improving community amenities such as basketball courts, playground, and splash pad, all while maintaining the natural setting of the core park. Work included public outreach, permitting, concept development, construction documentation, and construction management.

Navy Yard Park, Natick, MA: Provided design and project management services for design of a small park in Natick. The site was historically significant as a location for local shipbuilders from the Navy yard in Boston to Gather. The project included the installation of a universally accessible playground, shade and seating areas, a mulituse sports field, basketball courts, and community gardens.

Lincoln Park, Somerville, MA: Provided design services for the creation of a unique public park that incorporated surface and below-ground green infrastructure to a site that included two playgrounds, soccer and softball fields, basketball courts, splash pad, skate park, community gardens, and hammock grove, all while defining the "schoolyard" area from the larger public park space for school-time uses.

Jason Kroll

Senior Engineer
jkroll@horsleywitten.com

Areas of Expertise:
Site Design
Land Surveying
Civil Engineering
Stormwater Management
Construction Administration

Academic Background
BS, Civil Engineering, University of Rhode Island

Professional Experience
Horsley Witten Group, Inc., Senior Engineer, 2017 to present
Frisella-Balch & Associates, Designer, 2011 to 2017
Frisella Engineering, Inc., Associate Engineer, 2004 to 2011
R.J. Cohen Engineering Associates, Project Engineer, 1999 to 2004

Horsley Witten Group
Sustainable Environmental Solutions

Jason has more than 25 years of experience in the combined fields of civil engineering and land surveying, specializing in site development for both developed and undeveloped properties, including wastewater treatment design of conventional and advanced treatment systems, green stormwater infrastructure design, construction layout and oversight, boating facilities, and state and local permitting.

KEY PROJECTS

The Paddock – Pawtucket, RI
Managed the design of a residential development on Narragansett Park Drive. Development includes 33 townhouses, two 3-story buildings and a clubhouse. The green stormwater infrastructure design includes 14 tree trenches and underground recharge chambers to manage and treat stormwater runoff from the driveways and rooftops.

Blackstone Gateway – Providence, RI
Completed a field survey and developed alternatives designs to address flooding incorporating green stormwater infrastructure, flow attenuation, storage and infiltration, and runoff collection and conveyance.

Bellevue Veterans Community – Oak Bluffs, MA
Senior engineer involved with the site grading and layout of three residential buildings, green stormwater infrastructure practices, roadway improvements, and utility connections with a sewer lift station on Bellevue Avenue.

Old Courthouse Road – West Tisbury, MA
Managed the field survey, soil evaluation, and site design for an affordable housing development on behalf of the Island Housing Trust. Responsibilities included site layout, stormwater design, utility improvements, and preparation of permit documents.

East Main Road – Middletown
Provided technical design services for residential development with 36 units and four intersecting driveways. Design layout, utility connections, grading, and stormwater improvements were completed in collaboration with the architect for state and local permitting.

Green Hall and Tau Epsilon Phi – University of Rhode Island, Kingston, RI
Provided design services to treat stormwater runoff and improve campus drainage for two URI parking lot redevelopment projects that included low maintenance green stormwater infrastructure practices.

Rhode Island Department of Transportation – Providence, RI
Provided MS4 & EPA Consent Decree Compliance Support Services for two RIDOT constructed green stormwater infrastructure practices to treat storm water runoff from Route 10 and the Route 10 – Elmwood Avenue intersection immediately adjacent to Roger Williams Park.

King Street, Providence RI – Affordable Housing Development Project
Designed a multi-unit residential affordable housing development consisting of 30 residential units and a daycare/community center. Services included site layout, stormwater management, and permitting support.

Jason Kroll
Senior Engineer
jkroll@horsleywitten.com

Horsley Witten Group
Sustainable Environmental Solutions

Castle Street Cottages – East Greenwich, RI
Project engineer for a multi-unit residential housing project implementing green stormwater infrastructure. National Association Home Builders Pocket Neighborhood of the year in 2019.

Narraganset Bay Commission – Central Falls, RI
Contributed to the green stormwater infrastructure design for the redevelopment of Macomber Stadium and the Commission's Combined Sewer Overflow Project.

Narraganset Bay Commission – Central Falls, RI
Contributed to the green stormwater infrastructure design for the redevelopment of Pearce Park the Commission's Combined Sewer Overflow Project. Project included installation of two underground chamber systems, tree trench, utilization of water quality units, the construction of a pervious pavement basketball court and a redesigned little league field. Permitting lead as well as responsible for construction administration.

Barbara Jordan II – Providence, RI
Managed the design of a residential redevelopment for Omni Development Corporation on ten separate lots in the city of Providence. Development included a 4-story, 54-unit apartment building, eight, 2-story multi-family buildings and all associated stormwater management and utility connections. Included permitting with RIDEM, Narragansett Bay Commission and the City of Providence. Construction administration for the project.

Meshacket Commons – Edgartown, MA
Managed the design of a residential development that included ten multi-family buildings and a clubhouse. The green stormwater infrastructure design included 6 bioretention areas and underground recharge chambers to manage and treat stormwater runoff from the driveways and rooftops. Construction administration for the project.

Amy Ball, PWS, CWS

Senior Associate/Senior Ecologist
aball@horsleywitten.com

Areas of Expertise

Wetland & Natural Resource Area Assessments
Environmental Permitting & Compliance
Rare Species
Coastal Resources
Training
Meeting Facilitation

Professional Registrations & Affiliations

Professional Wetland Scientist, 2542
Certified Wetland Scientist, 230
Certified Invasive Species Manager, MA & RI
V.P. for Education, Board of Directors, Massachusetts Association of Conservation Commissions, Board of Directors (2006-present); President (2022-2025); V.P. for Education (2007-2010; 2013-2016; 2025-2026
Association of Massachusetts Wetland Scientists
Society of Wetland Scientists

Academic Background

Master of Science, Plant Biology, University of MA
Bachelor of Science, Biology, Muhlenberg College
Wetlands Wildlife of Southeastern MA Field Course, University of MA Cooperative Extension
Marine Phycology Summer Field Course, University of Washington
Barrier Island Ecology Summer Field Course, Duke University

Professional Experience

Horsley Witten Group, Inc., Project Manager/Senior Ecologist and Wetland Scientist, 2001 - Present
LEC Environmental Consultants, Inc., Project Manager, Ecologist, 1995-2001
Harvard Forest, Petersham, MA, Research Assistant, Summer 1994

Horsley Witten Group
Sustainable Environmental Solutions

Amy Ball has more than 30 years of professional experience as a wetland scientist and ecologist. Her specific expertise is in wetland botany and ecology, wetland restoration and mitigation, rare species and wildlife habitat assessments, wetland assessment and monitoring, invasive species management, environmental policy evaluation, and environmental permitting. Ms. Ball frequently appears before local conservation commissions and state and federal regulatory authorities as project representative or as a peer review consultant and has provided expert testimony before the Massachusetts Division of Administrative Law Appeals and in Massachusetts Land Court.

KEY PROJECTS

Maillet Sommes and Morgan Conservation Land Stormwater Constructed Wetland and Paths, Reading, MA
Permitting Manager for the design of a stormwater constructed wetland on a 6-acre public property to mitigate local and regional flooding and improve community access to open space. Project design includes removal of several invasive species and reintroduction of native plantings including over 60 native trees. Construction completed in June 2024.

Rare Plant Survey, Cochecho Waterfront Development Project, Dover, NH
Performed a rare plant survey for state-listed threatened and endangered plant species and habitats as part of the permitting support for a City-sponsored waterfront park and development that includes site remediation, living shoreline restoration, and bank stabilization in downtown Dover.

Wetlands Protection Bylaw & Regulations Updates, Oak Bluffs and Andover, MA (current)
Assisting the Conservation Commissions in two municipalities to update wetlands bylaw and regulations to address recent Massachusetts Wetlands Protection Act regulatory changes and incorporate climate resiliency. Provided reviews and edits to existing regulations to ensure consistency throughout, improve clarity of regulatory language, and strengthen performance standards.

Conservation Commission Peer Review Services – Various Municipalities (current)
Perform third-party independent project reviews for the MA municipalities of Andover, Attleboro, Bolton, Merrimac, North Attleborough, Norton, Oak Bluffs, Provincetown, Scituate, and Woburn, among others for projects involving wetland resource area and wildlife habitat impacts. Review services include reviewing resource area boundaries, wildlife habitat assessments, wetland mitigation, and compliance with state and local regulations.

Integrated Solid Waste Management Facility, Bourne, MA (current)
Project manager responsible for providing natural resources assessments and coordination and permitting under the Massachusetts Endangered Species Act to mitigate project-related impacts to rare species habitat associated with a master-planned expansion of the Bourne Landfill. The project will ultimately result in expanded solid waste handling facilities and office space, as well as the permanent protection of rare species habitat.

Amy Ball, PWS, CWS

Senior Associate/Senior Ecologist
aball@horsleywitten.com

Horsley Witten Group
Sustainable Environmental Solutions

Malden River Works, Malden, MA (current)
Permitting manager for the renovation of a 4-acre, city-owned parcel into a formalized Department of Public Works yard and the first public, climate resilient riverfront park along Malden River. HW partnered with Landing Studio and Offshoots, Inc. to design the open space, integrating capping strategies to address legacy contaminated soils, as well as integrating a multi-use path connection to the Malden River Greenway. Project incorporates green stormwater infrastructure design and a living shoreline. Access to the Malden River will be improved through the construction of an accessible dock. Permitting included compliance with Massachusetts Wetlands Protection Act, and Massachusetts Public waterfront Act (Ch. 91), and Federal Clean Water Act Sections 404 and 408.

Water Resource Recovery Facility, Yarmouth, MA (current)
Providing analyses on wetlands, wildlife habitat, and rare species and the effects of increased groundwater levels associated with pending groundwater discharge permitting of a multi-phased water resource recovery facility. Project supports the Town's Comprehensive Wastewater Management Plan which will reduce nitrogen loading in the receiving coastal resources along Cape Cod embayments.

Cape Cod Boat Ramp Stormwater Retrofit Project
Permitting manager for stormwater retrofits to improve water quality in impaired freshwater ponds and coastal embayments. Grant funding through an EPA Southeast New England Program (SNEP) Watershed Grant and CZM Coastal Habitat and Water Quality Grants, as well as private foundation funding administered through the Association for the Preservation of Cape Cod allowed for the permitting and construction of eight stormwater retrofit projects across seven Cape Cod municipalities. Permitting required under the Massachusetts Wetlands Protection Act, Massachusetts Endangered Species Act, and local wetlands bylaws.

Fort River Elementary School, Amherst, MA
Permitting manager overseeing wetlands compliance and mitigation measures, for a new 575 student elementary school with a focus on outdoor learning. Project involves the demolition of the existing school building and the construction of a new Net Zero building, including utilities, drainage, and site amenities. Permitting required compliance with Massachusetts Wetlands Protection Act and the Massachusetts Endangered Species Act with voluntary wetland restoration.

Wetland Restoration following Remediation of PFAS and Aviation Gas in Soil and Groundwater, Provincetown, MA (current)
Serving as permitting and mitigation manager for the remediation of contaminated soils and groundwater resulting from the release of aviation gas and PFAS relating to an aircraft accident and subsequent usage of AFFF for firefighting purposes. Provided wetland and habitat oversight and long-term monitoring of restored wetland resource areas following groundwater and soil excavation and disposal within sensitive rare species habitat in the Cape Cod National Seashore (CCNS).

Provincetown Municipal Airport, Capital Improvement Program, Provincetown, MA
Managed large-scale, multi-year project for wetlands and wildlife-related studies and project permitting. Serving as lead technical expert for freshwater and coastal resource area delineation, wildlife habitat assessments, and rare species habitat surveys, preparation of various reports and public presentations. Coordinating permitting with Federal, State, regional, and local regulatory agencies. Providing environmental oversight during construction and long-term monitoring of mitigation areas.

Province Lands Road and Province Lands Bicycle Trail Bridge Improvements, Provincetown, MA
Managed project and led field investigations for wetland delineations, vegetation community assessments, hydrogeomorphic assessments, and wetland functions and values within a 2.4-mile roadway corridor in the Cape Cod National Seashore on behalf of the National Park Service and the Federal Highway Administration.

HorsleyWitten.com @HorsleyWittenGroup Horsley Witten Group, Inc.

STRUCTUAL ENGINEER

e2 engineers
structural engineers

e2 engineers
structural engineers

CHAD VOGT, P.E.

Principal

Chad Vogt has 25 years of experience providing consulting engineering services for private and public clients. He merged his independent structural engineering firm with e2 engineers in 2010, looking to offer his expert knowledge to a growing practice. Chad strives to find cost-effective solutions for his clients, many of whom rely on him for on-call or expert witness services. As Principal, Chad works closely with each member of the e2 team to ensure a collaborative and creative problem-solving environment.

EDUCATION
Bachelor of Science, Civil Engineering, Uni. of Massachusetts - Dartmouth

AFFILIATIONS
ASCE, Construction Institute, SEACONN, PWC-CT, SEAMASS

RELEVANT EXPERIENCE

Catherine Hubbard Animal Sanctuary & Barn Stabilization
Newtown, CT

United Theatre Rehab and Adaptive Reuse
Westerly, RI

Buck Lodge Deck
CT Arboretum
Connecticut College
Groton, CT

City Hall Vault
Demo & Alteration
New London, CT

Pequot Estate
Rehabilitation
Waterford, CT

Go Fish
Additions & Reno
Old Mystic, CT

CHAD VOGT, P.E.
Prof. Registrations: CT, MA, FL, GA, LA, ME, MI, MO, NH, NJ, NY, NC, PA, RI, SC, TN, VA, MT

e2 engineers
structural engineers

KATE MACDOUGALL, P.E.

Associate Principal
Studio Leader, Massachusetts

Kate MacDougall leads e2 engineers' Concord, MA office with a client-centered mentality. She has almost 15 years of experience in the design of small, medium, and large projects for municipal, residential, institutional, and cultural clients, Following several years designing upgrades for nuclear facilities, Kate transitioned to traditional building design in order to build stronger client relationships and work on more community-based projects.

EDUCATION
Master of Science, Civil Engineering, University of Virginia
Bachelor of Science, Civil Engineering, Northeastern University

AFFILIATIONS
ASCE, Construction Institute, PWC-MA, SEAMASS

VOLUNTEERING EXPERIENCE
Minuteman Technical High School Engineering Advisory Committee

RELEVANT EXPERIENCE

United Theatre
Westerly, RI

Whittingham
Discovery Center
at Mill River Park
Stamford, CT

Interdistrict School for Arts/Communications (ISAAC)
New London, CT

New Canaan Library
New Canaan, CT

487 Bedford, Historic Barn & Residence
Carlisle, MA

Hyannis Public Library
Additions & Reno
Hyannis, MA

KATE MACDOUGALL, P.E.
Professional Registrations: CT, MA, NH, VT

e2 engineers
structural engineers

SERGIO GUINDON, P.E.

Senior Engineer |

Sergio Guindon has over a decade of experience providing structural engineering services for new, existing, & historic structures. Before joining e2, Sergio established a sole proprietorship specializing in the use of natural building materials, historic preservation, and lightweight structures. As an experienced engineer and project manager, he is involved with complex projects involving a mix of traditional and nontraditional structural systems.

EDUCATION
Master of Science, Civil Engineering, Carnegie Mellon University
Bachelor of Science, Civil Engineering, Carnegie Mellon University

AFFILITATIONS
Structural Engineers Association of Washington, AISC, ACI

RELEVANT EXPERIENCE

Grace Episocal Church Spire Reconstruction*
New Bedford, MA

Indian Hill Cemetary Chapel Restoration*
Middletown, CT

Canyon General Store & Adventure Store
Yellowstone National Park, WY

Stevens & Smith Center for History and Democracy
Lancaster, PA

Hartford City Hall Renovation
Hartford, CT

All Saints Church Spire Restoration*
Hartford, CT

*Project completed with previous firm. Photos provided by Cirrus Engineering.

SERGIO GUINDON, P.E.
Professional Registrations: CT, NH, & VT

COST ESTIMATOR

ELLANA inc.
Construction Consultants

Clive Tysoe, MRICS

Senior Cost Manager

Mr. Tysoe has over 40 years of experience in cost estimating, quantity surveying, internationally and regionally. His experience in the UK, USA and overseas covers many sectors of the construction industry and his strong focus on client satisfaction and managing expectations provides a great benefit especially on larger, more complex projects. His experience involves projects ranging from small projects to multimillion dollar endeavors. Mr. Tysoe has assisted on several value engineering workshops, providing an opportunity to the clients to re-evaluate the design and cost of their project. His broad base of construction knowledge and experience gives clients valuable advice and the ability to make informed decisions early in the design process.

education

- RICS External Examinations Part II/Manchester College of Building, Manchester, England/1986
- RICS External Examinations Part I/Manchester College of Building, Manchester, England/1984

licenses

- Appointed Associate Member of the RICS

select project experience

Congregational Church of Needham Renovations, Needham, MA

Cost estimating for renovations on a church in Needham. Congregational Church of Needham (NCCUCC) is a United Church of Christ congregation. The first building was constructed in the 1880s and subsequent additions were made to the campus. Improvements include accessibility options throughout the campus, new and improved bathrooms, more parking, expanded garden areas, and new entrances.

Taft Public Library Addition, Mendon, MA

Cost estimating for three different design options. The goal was to provide an addition that would add more administrative and meeting space to the existing library. Our team worked with the designers and their consultants to examine the various trades and scope involved in the project and provide the owner with a realistic budget for the chosen design. The various trades on the project included site/civil, landscaping, architectural, structural and MEP.

Wayland Community Center, Boston Post Road, Wayland, MA

Cost estimating for the renovation of MEP/FP systems at a 13,000 SF community center. Scope included partial demolition of MEP systems and installation of new systems from beyond 10 feet away from the entryway. The center includes several activity and conference rooms, a dining hall, office and administrative spaces, numerous bathrooms and site landscaping.

First Parish Church, Cambridge, MA

Cost estimating and scheduling for the phased renovation of the First Parish Church. The scope included work on the narthex area, restoration and reconstruction of the exterior and site improvements.

Boston Public Library, Codman Square Branch, Boston, MA

Cost estimating for a programming study of the Boston Public Library's Codman Square library branch in Dorchester. The study is a cost benefit analysis of renovations to the existing library versus construction of a new library. Aspects of the renovation option included upgrading the building systems and improving accessibility. Aspects of the new construction option included increasing support space and ultimately ensuring that the programming meets the current day needs of the community. Both options explored adding new public housing to the site.

Farley Building Community Center, Hollis, NH

Cost estimating for the addition and renovation to the Farley Building Community Center in Hollis, NH. As once opened as a school in 1877, the Farley Building plans to open as a community center in 2027, rehabilitating an historic, community icon.

HIGHLAWN, *Barrington Rhode Island*

Relevant Experience

Wright-Locke Farm - All-Seasons Barn

WINCHESTER, MASSACHUSETTS

A new education and program center enables expansion of the farm's educational programs and community events.

The historic Wright Locke Farm is a non-profit working farm dating back to 1628 and listed on the National Register of Historic Places. This living piece of agricultural heritage hosts farm-based educational programs and community events, while offering free public access to its hiking trails, ponds, wetlands, and hilltop glades.

- *2022, AIA Rhode Island Honor & Design Award, Citation, Commercial Architecture*

When a generous donor gifted adjacent land to the Wright-Locke Conservancy, the property expanded to 20 acres, creating the perfect opportunity for a new educational facility. Union was commissioned to design "The All-Seasons Barn," a multipurpose center that would honor the farm's historic character while meeting modern needs. Our design approach balances traditional barn aesthetics with contemporary functionality through a thoughtfully curated materials palette. Heavy timber framing and v-grooved wood ceilings not only evoke the warmth of historic agricultural structures but also showcase visible carbon sequestration—marrying sustainability with authentic character.

The completed All-Seasons Barn serves as a versatile community hub, accommodating gatherings of up to 100 people, housing a dedicated children's classroom, and featuring a demonstration kitchen for culinary and educational programming. This new facility enhances the farm's mission while respecting its centuries-old legacy.

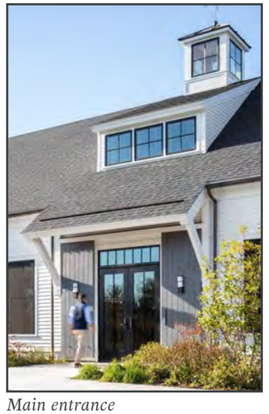
UNION

AGRICULTURE

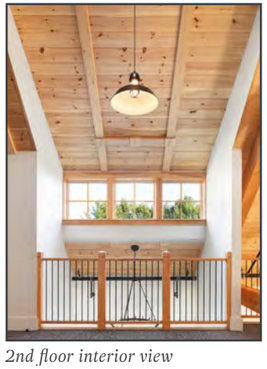
Wright-Locke Farm - All Seasons Barn

DATE 2021 **SIZE** 10,000 sf **COST** $3.1 Million **CLIENT** Archie McIntyre, Wright-Locke Land Trust, Inc.

View of the All-Seasons Barn and the Wedding Tree.



Main entrance



2nd floor interior view

Exterior view of event space

photography: Nat Rea

WaterRower, Inc

WARREN, RHODE ISLAND

Inspired by product design and details, the architecture mirrors the company it serves.

Located on a busy commercial corridor, WaterRower, Inc. is a growing company that designs and sells rowing simulation equipment from its headquarters in the historic, waterfront town of Warren, Rhode Island, to an international audience.

As WaterRower outgrew its original building, and needed to expand manufacturing capacity, Union worked with them to create a corporate visitor's center and headquarters that provide an engaging environment for clients and employees.

Along with the construction of the new, 30,000 sf building designed on the corporate campus, an existing manufacturing building was renovated, significantly enhancing the street presence of the corporate campus.

The new building includes marketing, sales, and administrative offices, a product museum, a showroom, gym space for product demonstrations, and a lunchroom.

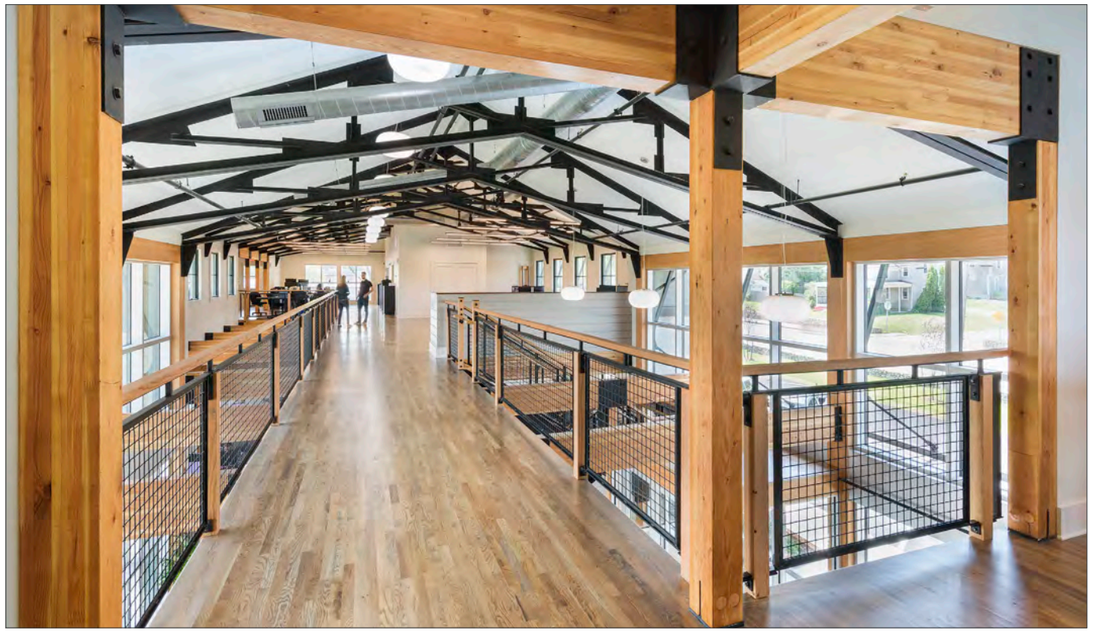
- 2017 '*Honor Award, Commercial or Industrial Building Design*' AIA Rhode Island
- 2017 '*Silver Award for Commercial Interior Design*', Rhode Island Monthly

UNION

COMMERCIAL

WaterRower, Inc

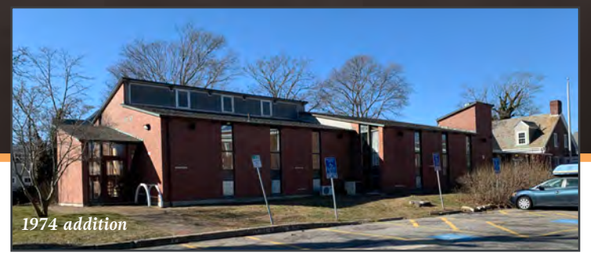
DATE 2017 **SIZE** 30,000 sf **COST** Undisclosed **CLIENT** WaterRower Inc.



Interiors inspired by WaterRower's unique product design

Back entrance view

images: Union



1974 addition

Hyannis Public Library

HYANNIS, MASSACHUSETTS

Carefully balancing historic preservation with forward-thinking design, dynamic spaces, and community-centered services for under-served and minority citizens.

The historic Hyannis Public Library, a cherished Main Street landmark dating back to 1830 with the original Cape-vernacular building still intact, partnered with Union to re-imagine its aging 1970s addition and renovate its 1938 masonry building. This comprehensive renovation and addition project represents the first major update to the facility since 1974, as it replaces the deteriorating wing with thoughtfully interconnected spaces. The new addition will feature flexible meeting spaces, a commercial teaching kitchen, a large assembly space that transforms into a dance studio, and whimsical children and young adult sections, all while maintaining a contemporary Cape Cod aesthetic that is respectful to the two remaining structures and provides innovative, modern spaces that will inspire Hyannis citizens.

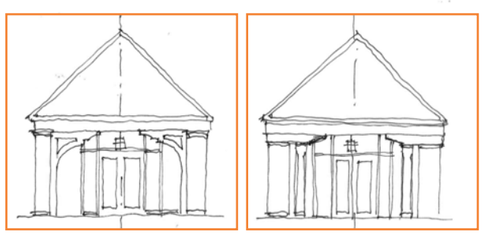
This renovation creates a bridge between generations, adapting the space for evolving needs while respecting its heritage. The renewed Hyannis Public Library will be able to deepen its role as a vital center for learning, creativity, and community connection for its diverse population of year-round residents, seasonal visitors, and under-served community members.

UNION

Hyannis Public Library

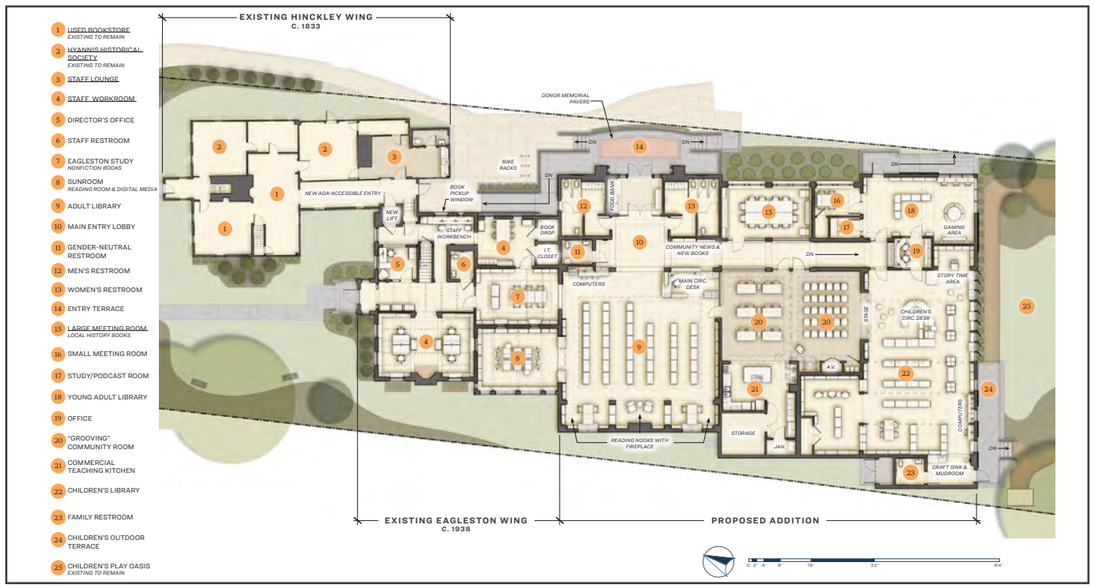
DATE Summer 2025 const. start **SIZE** 2 acres **COST** $8.5M **CLIENT** Hyannis Public Library Board of Trustees

New main entrance with meeting rooms in glazed "connector" leading to red youth barn (children & young adult wing)



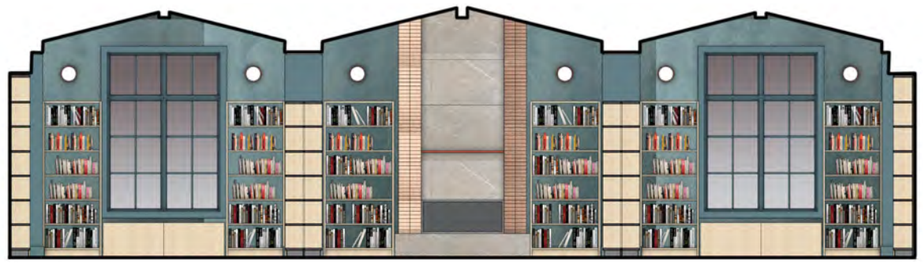
Above: one of the early studies of the library main entry, drawing inspiration from the forms of traditional Carnegie libraries, done up in the classic cedar shingle and trim of Cape Cod vernacular. Left: two bracket studies for the entry to create a more inviting welcome, which ultimately informed the final design.

Hyannis Public Library



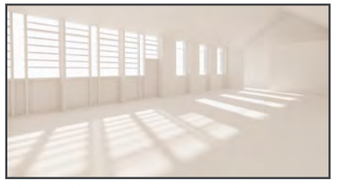
Floor plan including the preservation and renovation of the original historic library structures on Main Street

Above, from left to right: interior renderings of the adult stacks and children's wing. Right: rendered elevation of the reading inglenooks at the fireplace.

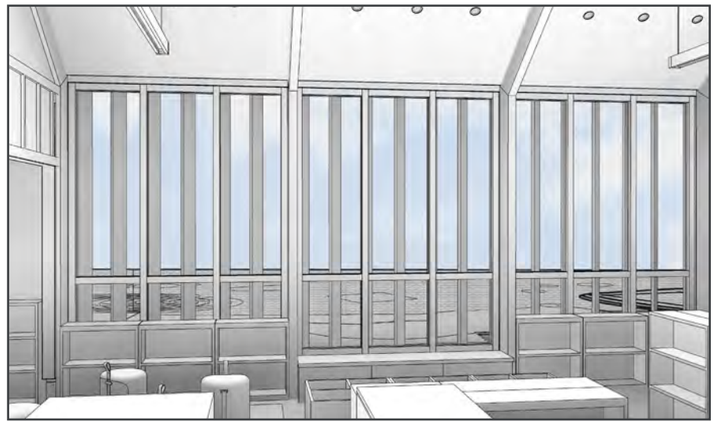


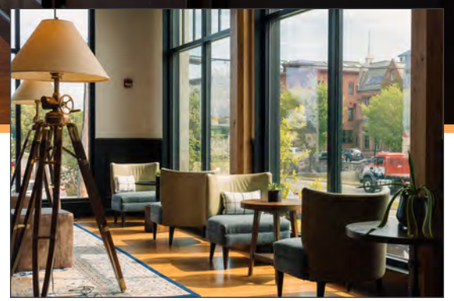
Hyannis Public Library

The barn with children's program space spilling out to the existing "play oasis". The large expanse of glazing with vertical shutters offers a visual connection between the interior and exterior, while providing necessary sun-shading and heat gain control.



Above: diagrammatic sun studies of different shading devices, all shown during the winter solstice at noon. Right above: interior view from inside the children's barn, early study; right below: inspiration for shading device





Sarah Langley Gallery
at Hammetts Wharf

CITY, STATE

A waterfront gallery honoring the woman who shaped Newport's wharf.

The Sarah Langley Gallery is an intimate, publicly accessible art gallery integrated into the ground floor of Hammetts Wharf. From the outset, the design team envisioned a mixed-use development with the power to bolster the pedestrian experience along America's Cup Avenue by providing public access to a graceful harbor-facing deck, a signature restaurant, retail, and an art gallery.

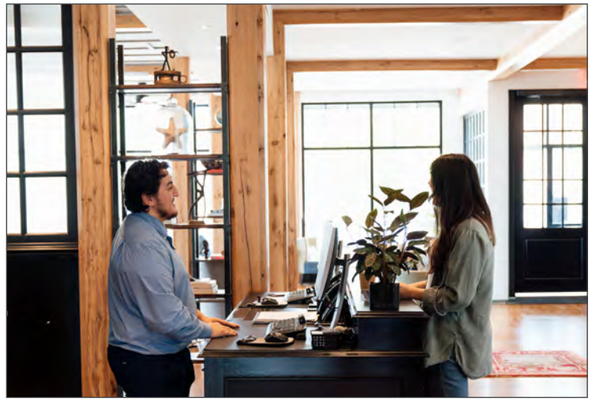
Named in honor of Sarah Langley — the owner of Hammetts Wharf from 1893 to 1906 and the only woman ever to hold that distinction — the gallery is sited to serve both guests and the broader Newport community. Its ground-floor location, just off the main lobby, was a deliberate design choice to activate the street edge, draw pedestrian traffic through the building, and reinforce Hammetts Wharf's role as a civic anchor on the waterfront.

- *2022, Outstanding Smart Growth, GrowSmartRI*
- *2021, CNU Charter Award, Congress for the New Urbanism*
- *2021, Design Excellence, The Urban Guild*
- *2021, Midscale Hotel Design Award, Hospitality Design*
- *2021, Award of Distinction, Commercial Interiors, Rhode Island Monthly*
- *2020, Merit Award, AIA Rhode Island*

UNION

The Hammetts Wharf public deck entrance on America's Cup Avenue

The Sarah Langley Gallery at the hotel's ground floor



Hotel reception with custom millwork and warm finishes

Ground-floor corridor connecting lobby to harbor

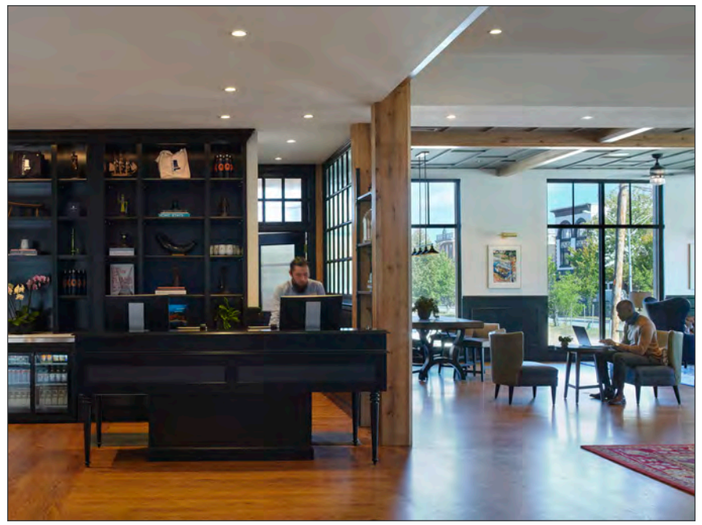
Hammetts Wharf

HOSPITALITY / COMMERCIAL MIXED USE

DATE 2020 SIZE 47,000 sf COST $25M CLIENT Scott's Wharf, LLC

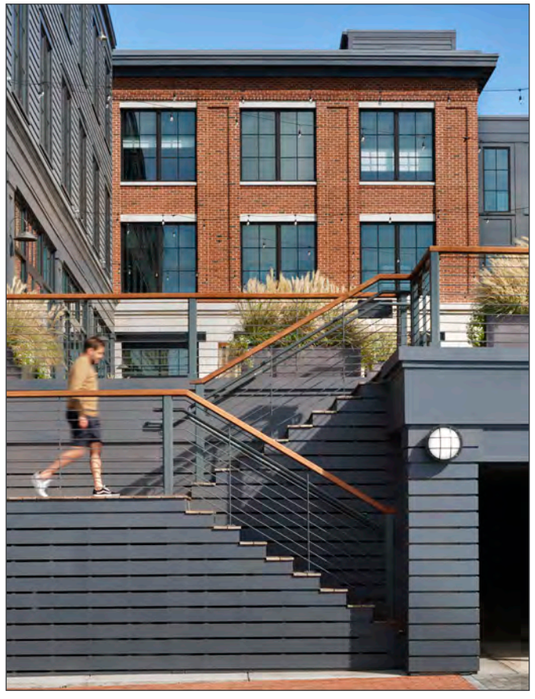
Hammetts Wharf Hotel at dusk, from America's Cup Avenue

Respecting history and investing in the future, an adaptive design in a threatened historic waterfront.



Hotel lobby and reception desk

Public seating along America's Cup Avenue



Rear stair descending to the harbor

View of central public deck shared by hotel, retail and restaurant

photography: Nat Rea

Tiverton Library

TIVERTON, RI

A celebrated library design that finds the balance between traditional expression and modern programming.

- *2016, Merit Design Award for Institutional, AIA New England*
- *2016, Outstanding Smart Growth Project, GrowSmart RI*
- *2016, Gold Award for Commercial Interior Design, RI Monthly*
- *2018, Merit Award for Civic/Institutional, AIA Rhode Island*

UNION

This design represents the merging of two seemingly disparate requests. The first: a desire for a new library with a traditional expression that speaks to the history of libraries in Tiverton while reflecting the simple agrarian vernacular of the surrounding countryside. The second: a library that's truly a 21st-century community gathering space—open, extremely flexible, energy-efficient, and data-rich.

Union met these goals with a design that includes a community meeting hall, café, children's library, teen room, and exterior courtyard spaces. In addition to the building design, Union developed the library's furniture, fixtures, and equipment package, working with furniture manufacturers to custom-design computer stations, service points, and new book displays

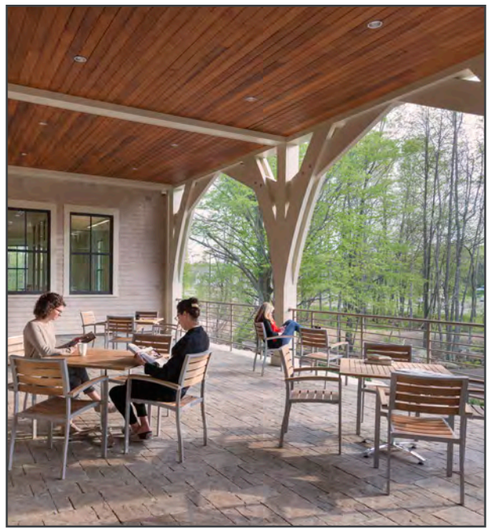
The library location was selected to take advantage of community resources that already existed. To the south and west, the library abuts renovated town recreational fields (which were planned by Union in 2006), as well as a mixed-use artists' cooperative, farm, and performance venue, also designed by Union. The Tiverton Library is in close proximity to the middle and high schools, and has become the primary meeting place and neighborhood focal point for the town.

Tiverton Library

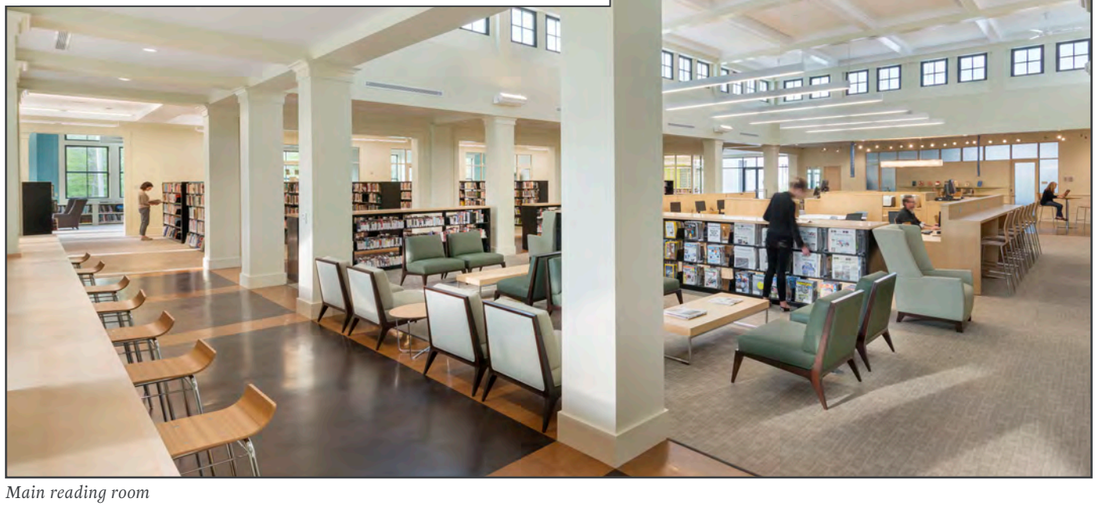
PUBLIC LIBRARY

DATE 2015 **SIZE** 24,000 sq ft **COST** $7.5 million **CLIENT** Tiverton Public Library Board of Directors

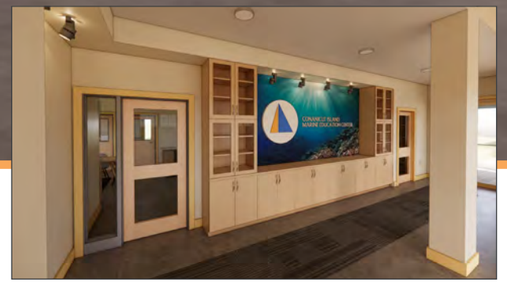
Bookstore Café


^ *Courtyard space*

< *Children's Library computer stations*


Main reading room

images: UNION



CISF Sailing Center

JAMESTOWN, RHODE ISLAND

A permanent home for CISF at Fort Getty Park — net-zero, red-list-free, and designed to teach as much as it shelters.

The Conanicut Island Sailing Foundation (CISF) is establishing its first permanent home at Fort Getty Park in Jamestown. The resilient, sustainable campus replaces temporary tents and trailers and expands CISF's capacity to deliver sailing, science, and youth education programs to the local and statewide community. Two new buildings—a 2,320 sf education center and 1,230 sf workshop—are linked by landscaped outdoor spaces and feature a multipurpose room, marine laboratory, kitchen, day lockers, showers, and boat storage and maintenance space.

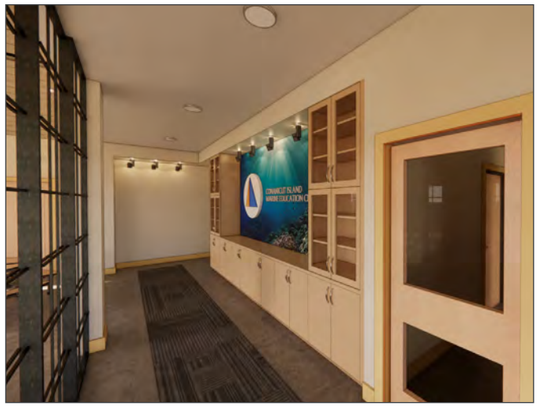
The campus is designed to 'practice what it preaches,' showcasing high-performance building science and healthy material choices. A well-insulated envelope with triple-glazed windows pairs with all-electric systems including heat pumps, ERVs, and hybrid water heating. Rooftop solar arrays with battery backup target net-zero energy use, while red-list-free and bio-based materials reduce embodied carbon. Native plantings, pervious paving, and rain gardens extend CISF's environmental mission into the landscape, creating a living classroom where students engage with sailing, marine science, and the coastal environment.

UNION

CIVIC

CISF Sailing Center

DATE 2026 **SIZE** 3,550 sf **COST** undisclosed **CLIENT** Conanicut Island Sailing Foundation



Entrance, with view of galley

Multipurpose / classroom space

Marine biology lab

Staff work room

Preliminary exterior view

SEA CAPTAINS' ROW, *Hyannis, Massachusetts*

CLIENT REFERENCES

Kristy Senatori – Executive Director
Cape Cod Commission
Phone: 508-744-1216
Email: ksenatori@capecodcommission.org

Antonia Stephens – Director
Hyannis Public Library
Phone: 508-775-2280
Email: astephens@clamsnet.org

Robert L. Brennan, Esq. – Chief Legal Officer
Housing Assistance Corporation
Phone: 508-957-3280

Daniel Paquette – Owner's Representative
SCM, LLC
Phone: 401-862-0985
Email: dgpaquette@gmail.com

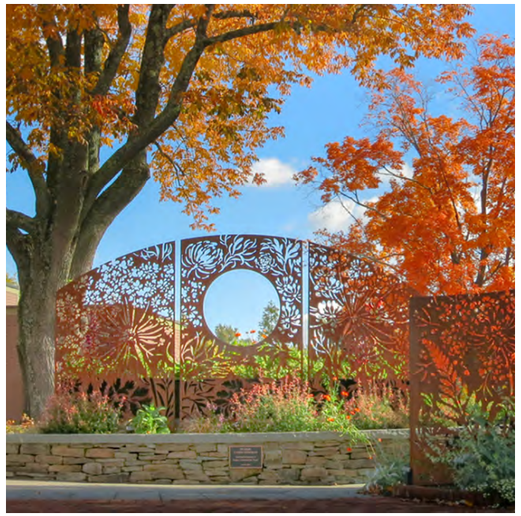
UNION

Places of Value. *Value of Place.*

LANDSCAPE ARCHITECT

RYAN ASSOCIATES

LANDSCAPE ARCHITECTURE AND PLANNING



Corten steel entry walls, illustration by Natalya Zahn

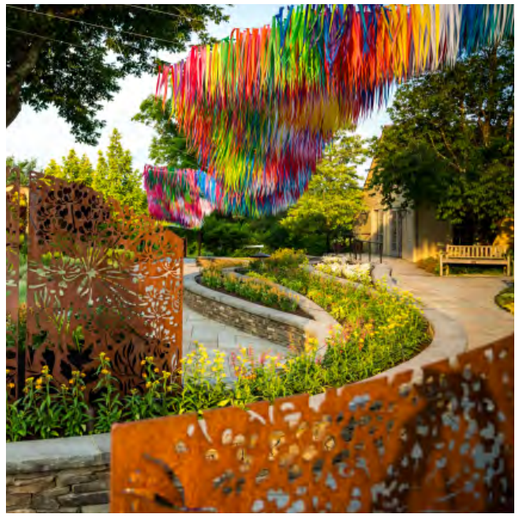
The primary organizational element in the Garden is a serpentine sequence of raised planting beds. These beds contain plants that offer distinctive sensory experiences, such as smell and texture. A continuous seat wall allows visitors to access the garden beds from a seated position while providing ample seating for other garden events. This planter also creates the backbone for a fully accessible walkway, which creates a graceful transition between the entrance of the main building and the nearby 18th-century farmhouse, which is 2' higher.

Water feature with bronze sculptures by Laura Baring-Gould

The Court: A Garden Within Reach
Boylston, MA

Ryan Associates worked closely with the New England Botanic Garden at Tower Hill in Boylston, MA, to create a space where people of all abilities can engage directly with the botanic experience.

Thirteen plasma-cut corten steel screens form the ceremonial entrance to the Garden. These screens, designed in collaboration with illustrator Natalya Zahn, depict an abstraction of plant forms common to the *Apiaceae* family.



Serpentine planter wall with temporary art installation by Poetic Kinetics above

Water plays an important role in the Garden by providing visual, auditory, and tactile experiences. Centrally located in the main planting bed, a stepped fountain creates movement and sound. Closer to the entrance, a 7' diameter circular fountain invites visitors to interact directly with the water. Bronze sculptural pieces by artist Laura Baring-Gould evoke a New England pond ecosystem with lily pads, frogs, and turtles.

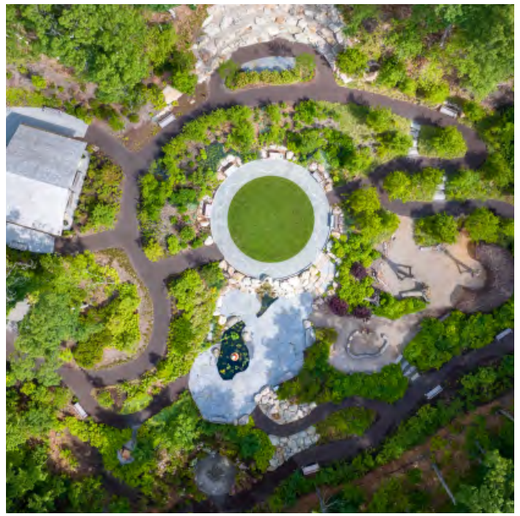
Stone Archway

The garden, a series of destinations set within a lush botanic collection, encourages engagement with nature through unscripted play. Garden features include an interactive water sequence and wildlife pond, an "outcrop" which is equal parts amphitheater and boulder scramble, and a "stumpery" that turns felled trees into natural play structures.

The Stumpery with upside-down trees and a hand-woven "Brush Pile"

The Ramble
Boylston, MA

Ryan Associates, in collaboration with artist and landscape architect W. Gary Smith, designed The Ramble, a new 1.5-acre children's garden at the New England Botanic Garden at Tower Hill in Boylston, MA.



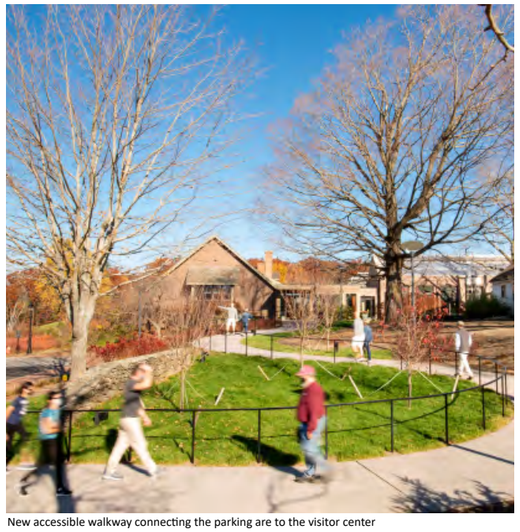
Aerial view of The Ramble

Designed with accessibility at the forefront, visitors of all abilities can discover nooks and crannies that reveal opportunities for active and passive play or creative pursuits such as rock stacking. Paths meander through the woodland setting and lead to the heart of the space, a sunlit circular lawn and perennial border, which is positioned with views of the surrounding garden.

Aerial view of New England Botanic Garden

New England Botanic Garden at Tower Hill
Boylston, MA

Over nearly a decade, Ryan Associates partnered with the New England Botanic Garden at Tower Hill (NEBG) on a wide range of projects, including The Court: A Garden Within Reach, The Ramble, and a large-scale expansion of their parking facilities. In addition, we made significant improvements to overall accessibility, linking new garden spaces to one another and to the main visitor building.



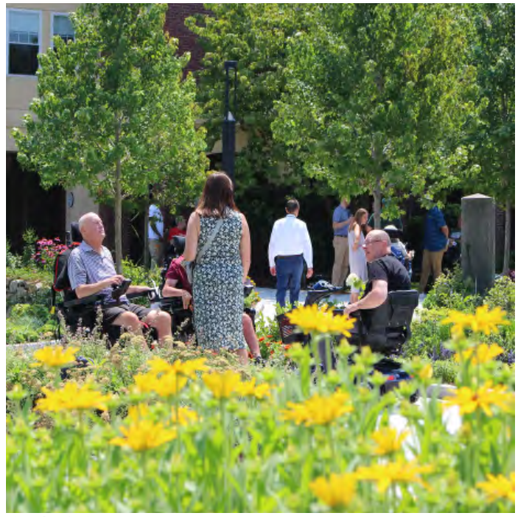
New accessible walkway connecting the parking are to the visitor center

Recognizing that garden visitors experience a wide range of mobility challenges, we designed universally accessible walkways intended for all users. Two examples include a new entry garden connecting the expanded parking area to the visitor center, which is more than 20' higher, and a new 260' boardwalk between the visitor center and The Ramble.

New boardwalk in existing oak allee with temporary art installation by Poetic Kinetics above

This slightly elevated boardwalk replaces an inaccessible grass pathway within an allee of existing oaks. The boardwalk, constructed on delicate pin foundations, has minimal impact on the roots of the existing trees. At the terminus, a new granite terrace surrounds a renovated millstone fountain.

RYAN ASSOCIATES LANDSCAPE ARCHITECTURE & PLANNING



View of garden in use

The site was previously an unused open lawn adjacent to a parking lot near the building's main entrance. The goal of the project was to transform the space into a lush garden that provides opportunities for residents and guests to enjoy small to medium gatherings while prioritizing accessibility, specifically for those using motorized wheelchairs.

View of garden paths and planting

The Boston Home
Dorchester, MA

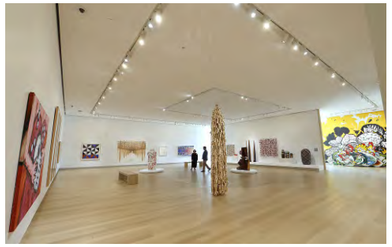
The Boston Home in Dorchester, MA, is an innovative community for adults with advanced neurological disorders, primarily multiple sclerosis. Since its establishment in 1881, the facility has grown into a national model for the long-term care of this population. Ryan Associates designed a new garden for an underutilized area on the property.

Rendered site plan

The design utilizes a wide curving path to accommodate motorized wheelchairs, planted berms to screen views, and a water feature for sound. Small undulations off the main pathway form seating areas for two to three people, and a centrally located open space allows for group activities.

MEPFP

ARKANSAS MUSEUM OF FINE ARTS



The Arkansas Museum of Fine Arts is a gut-renovation and addition to an existing building in Little Rock, Arkansas. The multi-functional museum houses artwork and also serves as an active center for the visual and performing arts. The museum was founded in 1960 with the goal of creating a facility that supports cultural and social development. The new Arkansas Museum of Fine Arts aims to further develop that goal. The modernization of the facility will create opportunities for accommodate a wide range of exhibits and host performances from any part of the world.

The design of the facility required a balance between its architectural intent and new systems required to maintain modern standards of comfort. Included in the program are spaces that require precision control of temperature and humidity, required for the display or storage of art and exhibits. The design of the Arkansas Museum of Fine Arts included new boiler and chiller plants as well as new air handling systems. These systems combined with high mass radiant heating and cooling in premier areas of the building provide enhanced thermal and acoustic comfort while minimizing the aesthetic impact in the space.

The building has several different use types with varied conditioning requirements including children's theater, galleries, art storage, restaurant, art classrooms, and event spaces. The art display and storage spaces have strict humidity and temperature tolerances for long-term art preservation. The main event spaces are conditioned with in-slab radiant heating and cooling - one of few implementations of radiant cooling in a warm and humid climate – which provides enhanced comfort and reduced noise in these spaces. DataBased+ provided energy modeling and sustainability consulting services on the project. The design of the facility targets a LEED Silver Certification demonstrating its commitment to a sustainable design and construction of the Arkansas Museum of Fine Arts.

PROJECT LOCATION
Little Rock, AR

PROJECT TYPE
Cultural + Spiritual
Institutional

PROJECT INFORMATION

OWNER:
Arkansas Museum of Fine Arts

AREA:
134,000 sf

CLIENT:
Studio Gang Architects

TOTAL PROJECT COSTS:
$73 million

dbHMS SCOPE:
MEPFP
Energy Modeling
Sustainability Consulting

PROJECT COMPLETION:
2020

LEED:
Silver

dbHMS PERSONNEL:
Sachin Anand
Luka Ulicevic
Claudia Mattison
Marcos Guerrero

SPELMAN COLLEGE
Mary Schmidt Campbell Center for Innovation & the Arts

This new 4 story academic facility for Arts at Spelman College was designed with a unique internal building profile. Each space was designed individually to address the unique needs of each space.

- The 1st floor includes a grand entrance lobby, the main black box theatre space, dance studios and art museum
- 2nd & 3rd floors have a double height Forum space used for overall circulation as well as event gathering and varies maker lab spaces, classrooms and rehearsal spaces.
- 4th floor includes all facility offices and several conference room spaces.
- Museum and art storage spaces have special humidity requirements that needed to be considered when designing the mechanical systems.
- Overall occupancy of the building was analyzed in different scenarios to best design for worst case.
- The theatrical spaces for performances and rehearsals required special design considerations from architectural, acoustical and mechanical aspects.
- The varies maker lab spaces includes 3D printers, laser cutters, an electrical kiln, and a dark room which all required specialty exhaust.

PROJECT LOCATION
Atlanta, GA

PROJECT TYPE
Educational
Sustainable

PROJECT INFORMATION

OWNER:
Spelman College

AREA:
72,900 gsf

CLIENT:
Studio Gang Architects

TOTAL PROJECT COSTS:
$60.3 million

dbHMS SCOPE:
MEP Engineer of Record
Sustainability Consultant
Solar Analysis

LEED:
v4 SILVER - Projection

PROJECT COMPLETION:
2025

dbHMS PERSONNEL:
Sachin Anand
Tracy Korbus
Luka Ulicevic
Vic Avila
Will Balan
Melanie Espinoza
Kristina Lundeen

EARLHAM COLLEGE

Visual and Performing Arts Center

Earlham College Visual and Performing Arts Center is a 47,000 SF state-of-the-art performance center. Located on the college's South Campus, the new facility is comprised of two main performance facilities that are located in the center of the building, a 480-seat concert venue with moveable tiered seating, and a new black box theater. The two theaters are surrounded by support spaces, including a green room, individual practice rooms, as well as jazz and gamelan classrooms, dressing rooms, and storage spaces.

For visual and music arts, specific programmatic elements provide designated areas for ceramics, metals, drawing, painting, and photography, including a dark room. Music rooms for sound consist of voice, editing, and recording studios. Additionally, the building includes classrooms, faculty offices, storage for the college's art, and common areas.

dbHMS led the design and coordination of all new MEP/FP systems for this building, ensuring that all heating, cooling, electrical, and plumbing and fire protection requirements in the building were met. The building has achieved LEED Gold certification and follows best practices for sustainable design.

PROJECT LOCATION

Richmond, IN

PROJECT TYPE

Higher Education
Theater
Fine Arts

PROJECT INFORMATION

OWNER:
Earlham College

AREA:
47,000 sf

CLIENT:
Boora Architects

TOTAL PROJECT COSTS:
$17 million

dbHMS SCOPE:
MEP/FP Design
Lighting Design

PROJECT COMPLETION:
2014

SUSTAINABILITY:
LEED Gold

dbHMS PERSONNEL:
Sachin Anand
Victor Avila

NORTH WILMINGTON PUBLIC LIBRARY

The project is for the N. Wilmington 'Think-Do' Hub Library at 3905 N. Market Street in Wilmington, DE. Built as a campus extension of the N. Wilmington Library Hub. The new public community engagement two-story building will provide programming that will encourage hands-on learning and educational experiences.

The project included an outdoor space for community engagement and children play areas, roof deck for community events and outdoor activity area, community living room, a maker space, community teaching kitchen, Multi-purpose Rooms for lectures theater and readings, a café, library offices and staff space, a Co-working area, and Teen collaborative spaces, dbHMS has provided high performance Mechanical systems for the buildings, using all electric variable flow refrigerant systems for cooling and heating along with a decoupled central dedicated outside air system ventilation with airside energy recovery and demand control ventilation strategies to match airflow to spaces and meeting rooms based on occupancy. Source air capture exhaust was provided for the makers spaces with linear slot hoods, and directly from laser cutters. Project included a new BAS system for monitoring and controls.

Electrical infrastructure included the design for a future 250 Amp photo-voltaic array with a 65 kW battery energy storage system.

PROJECT LOCATION

Wilmington, DE

PROJECT TYPE

Institutional
Library

PROJECT INFORMATION

OWNER:
Wilmington Public Library

AREA:
24,000 sf

CLIENT:
Digsau

TOTAL PROJECT COSTS:
$22 million

dbHMS SCOPE:
MEPFP
ICT and Security
Commissioning
High Performance Building Simulation

PROJECT COMPLETION:
2025

dbHMS PERSONNEL:
David Siegel
Sachin Anand
Vic Avila
Sherman St. Hill
Bharat Balan
Luka Ulevic
Alexander Zaske

TEMPLE UNIVERSITY
Tyler School of Art & Architecture

PROJECT LOCATION
Philadelphia, PA

PROJECT TYPE
Higher Education
Renovation

PROJECT INFORMATION

OWNER:
Temple University

AREA:
22,500 sf

CLIENT:
Digsau

TOTAL PROJECT COSTS:
$5 million

dbHMS SCOPE:
MEPFP
Lighting Design
Information Technology

PROJECT COMPLETION:
2022

dbHMS PERSONNEL:
Sachin Anand
Sydney Durr
Vic Avila

The Tyler School of Art & Architecture is a 160,000 NSF building constructed in 2009 that houses Temple University's fine arts and design related programs. The renovation project scope intended to accommodate critical functions that were absent when Tyler was built; improve space layout to better accommodate current curriculum and programmatic needs; and foster a greater sense of community across the entire school. After a comprehensive study the renovations provided include an open gallery space, photography suite, a state-of-the-art digital media center, offices for art history and other art departments, large classrooms, and community space.

dbHMS provided new terminal equipment and HVAC distribution for the renovated program areas. This required complete understanding of existing air-handling equipment and close coordination for redistribution. Dedicated exhaust was provided for the laser cutter and digital media center. Additionally, new electrical distribution, data and AV infrastructure and lighting with associated controls were provided for these spaces. dbHMS worked closely with the University Technology team to ensure all data infrastructure aligned with the university standards and met technical equipment requirements.

Electrical scope also included new convenience power receptacles for main lobby, café and green hallway.

MUSEUM OF SCIENCE AND INDUSTRY

U-505 WWII Submarine Exhibit

Science Storms

Marvel Exhibit

Food Court Modernization

PROJECT LOCATION
Chicago, IL

PROJECT TYPE
Institutional

PROJECT INFORMATION

OWNER:
Museum of Science and Industry

AREA:
Various

CLIENT:
Museum of Science and Industry

TOTAL PROJECT COSTS:
$100,000 - $250,000 per project

dbHMS SCOPE:
HVAC Consulting
Concept Study Narrative
Construction Administration

PROJECT COMPLETION:
2014 - 2021

dbHMS PERSONNEL:
Sachin Anand
Marcos Guerrero
Victor Avila

The Museum of Science and Industry (MSI) is a science and technology-focused museum in Chicago, IL. Originally constructed as part of the 1893 Columbian Exposition, it is one of the few remaining buildings from that era.

dbHMS collaborates with MSI Facilities on various mechanical design projects and technical studies. Over the years, dbHMS has worked on numerous projects with MSI, including modifications to existing systems to meet the specific requirements of various exhibits. Notable projects include those for the Marvel and Star Wars exhibits. dbHMS also assisted with studies of the existing food court and how a planned modernization would impact the mechanical systems and the necessary upgrades. Given the historic nature of the building, this required close coordination with the museum to ensure compliance with its historic aspects.

MSI Projects:

- MSI U-505
- Star Wars Exhibit C132&C117
- Water-Cooled HVAC Unit Replacement
- MSI Food Court AHU Replacement
- MSI Marvel Exhibit

CIVIL ENGINEER

HORSLEY WITTEN GROUP

Sustainable Environmental Solutions

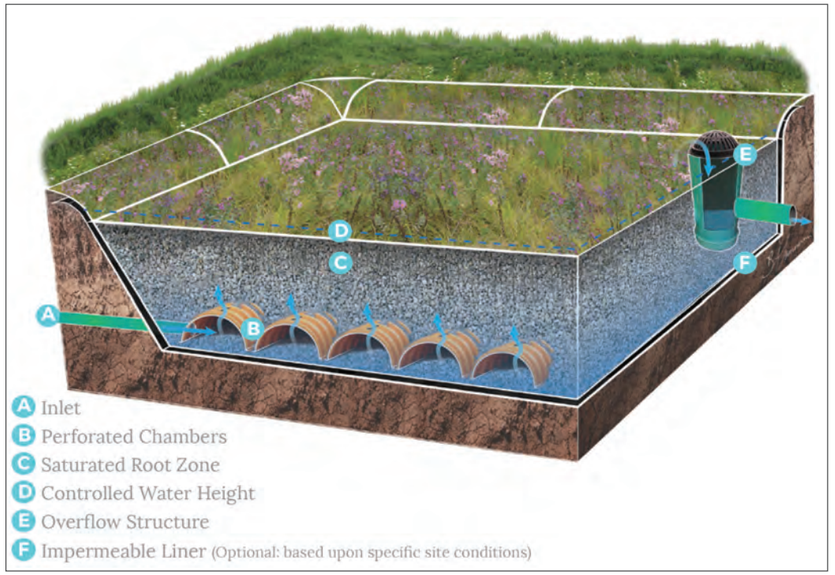
GREEN STORMWATER INFRASTRUCTURE

ASSESS | PLAN | DESIGN | CONSTRUCT | EDUCATE

What's in a name? Green Stormwater Infrastructure (GSI) has been known by many names and acronyms over the years – Smart Growth Practices, Better Site Design, Low Impact Design (LID), Green Infrastructure (GI), and Nature-based Design to name a few. Regardless of what it is called, the design intent is the same. GSI mimics natural processes to manage stormwater runoff while also providing healthier spaces for people, plants, and animals. GSI includes a variety of stormwater practices that reduce and/or treat stormwater, such as rain barrels and cisterns, rain gardens, bioretentions, green streets, underground infiltration, porous pavements, and constructed wetlands.

Horsley Witten Group has been on the forefront of GSI planning and design from its very inception. We work with state and federal agencies, nonprofits, towns, and cities to provide all aspects of GSI services. Our staff is experienced in adapting GSI design for a range of site conditions and contexts, from parks to urban centers. We have developed state and local design manuals that incorporate GSI and have performed code audits to identify GSI opportunities and barriers within local regulations. We have developed GSI curriculums for school systems and conducted hands-on workshops building and maintaining GSI practices. Our staff love getting out into the field for watershed assessments and identifying the best locations for GSI retrofits. We are always following the latest research and data for ways to tweak GSI design to enhance pollutant removals and climate resiliency. We are passionate not only about implementing GSI as we know it today, but pushing it into the future when, who knows, it might be known by another name!

Gravel Wetland Design



Green Stormwater Infrastructure Services include:

- *GSI Planning, Sizing, & Design*
- *Stormwater Master Plans & Watershed Plans*
- *Permitting Assistance*
- *Soil Evaluations*
- *Field Investigations*
- *Vulnerability Assessments*
- *GIS Mapping/Modeling*
- *Municipal and Public Training*
- *Native Plant Selection and Restoration*
- *MS4 and TMDL Assistance*
- *Phosphorus Control Plans*
- *ORM Plans and Workshops*
- *Grant Funding Assistance*
- *Public Outreach and Engagement*
- *Construction Oversight*

"Green infrastructure is a cost-effective, resilient approach to managing wet weather impacts that provides many community benefits." - *US EPA*

GSI for Park Improvement

Roger Williams Park, Providence, RI

We assisted the City of Providence and the Narragansett Bay Estuary Program with the development of a water quality management plan for Roger Williams Park. The goal was to improve the water quality and biodiversity conditions of the Park's ponds. The project included the identification and prioritization of dozens of GI practices, several of which we have designed and constructed. Our projects will be highlighted as part of a new regional GSI Center at the Park!

Watershed-wide GSI

Three Bays Watershed, Barnstable, MA

HW is working with the Association to Preserve Cape Cod, the Barnstable Clean Water Coalition, and the Town of Barnstable to reduce stormwater pollution in the Three Bays Watershed. We have completed extensive field assessments, identifying and prioritizing over 70 GSI retrofit opportunities! We designed and permitted eight of the top priority sites and have overseen construction on three of them. We will be constructing three more in 2020! We also led numerous outreach activities including hands-on workshops to teach homeowners how to build rain gardens and to train municipal staff, on how to perform GSI maintenance.

GSI at Boston Public Schools

Boston Water and Sewer Commission, Boston, MA

We designed GSI to manage stormwater runoff and engage students at five Boston Public Schools. The schools plan to incorporate green infrastructure into their strategic plan for educational programming and capital investments. With help from several partners, HW provided site investigations, GSI feasibility assessments, soil evaluations, GSI siting and design, and assistance with the stakeholder input process. Integration of stormwater into the science curriculum for fifth and seventh graders was one of the most exciting components of this project.

Implementing GSI for CSO Abatement

New York, NY

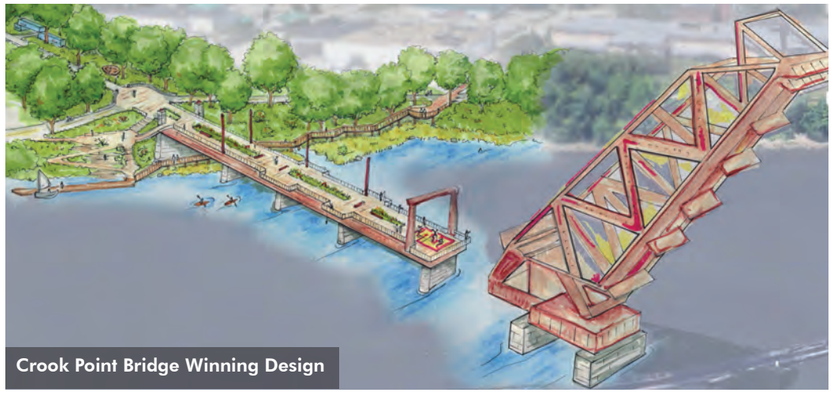
New York City is implementing GSI as a cost-effective and green alternative to big tanks/tunnel storage typically used for combined sewer overflow (CSO) abatement. We have helped the City evaluate numerous BMPs including permeable pavements, underground recharge chambers, bioretentions, and blue roofs; providing siting, design, and construction oversight services for a variety of projects. We also collaborated with the City's Office of Green Infrastructure to initiate wide-scale implementation of GSI "bioswales" within City street ROWs and "on-site" practices at several public school sites.

GSI Guidance for Pacific and Caribbean Islands

We developed this guide to help on-island stormwater managers to implement better stormwater management using island examples. It showcases successes from a variety of Pacific and Caribbean islands and provides island-specific information ranging from how to adapt designs using local materials to sizing criteria and rainfall data. This guide is not regulatory but is intended to inspire our island stormwater champions to embrace and implement GSI.

URBAN DESIGN

LISTEN | COLLABORATE | PLAN | DESIGN | BUILD



Crook Point Bridge Winning Design

Horsley Witten Group provides innovative and implementable urban design concepts that support healthy, happy, and inviting places that are in balance with nature. Our urban designers, landscape architects, and engineers specialize in sustainable neighborhood design and resilient infrastructure. We apply a "boots-on-the-ground "interdisciplinary approach that draws on our experience implementing sustainable design at various scales, from the watershed to the block, street, and site, generating realistic solutions that people love!

We strive to build momentum through a collaborative and participatory design process. Much of our experience involves translation of community values and objectives to consensus designs and implementation plans. We understand visioning builds momentum for long-term change, and realize that decision-makers often need a clear and manageable series of steps to get started. Our design solutions clearly express long-term community vision, and align immediate and short-term actions and investments towards common objectives.

Urban Design services include:

- *Vision & Master Plans*
- *Neighborhood Design*
- *Conceptual Site Planning & Yield Analysis*
- *Waterfront Planning*
- *Green Streets & Streetscapes*
- *Greenways & Urban Trails*
- *Community Outreach*
- *Public Engagement*
- *Design Charrettes*
- *Design Guides & Manuals*
- *Graphic Design & Project Websites*
- *Educational Signage*

"The best foundation for design is authentic listening."

HW Designer

West Ashley Vision & Master Plan

Charleston, SC

HW collaborated with Dover, Kohl & Partners to develop a Plan West Ashley, a community vision and master plan for the West Ashley area of Charleston, South Carolina. The City Council adopted the plan and it now plays a pivotal role in shaping the area's future. Our experts led climate resiliency, infrastructure, sustainability, and open space elements of the plan – balancing economic development and growth pressures with environmental impacts and climate change. The plan featured a tool kit for GI and resiliency strategies for various urban conditions found in West Ashley.

Sewanee Village Stormwater Master Plan

The University of the South, Sewanee, TN

A diverse group of stakeholders convened to create an updated plan for approximately 12 acres of the Village, balancing economic development, placemaking, and environmental stewardship. The university wanted to be a model of environmental sustainability. The HW team applied an enhanced existing conditions assessment, creative neighborhood design, innovative block, street, and building landscape architecture, and engineering modeling to help review alternatives and select an ambitous consensus plan. Phased construction is underway.

Seekonk Riverbank Revitalization

Providence, RI

HW has worked with a neighborhood-led coalition with the City of Providence on public outreach, visioning, and design for transformation of a one mile stretch of the Seekonk Riverbank. The community supported design provides a separated riverfront multi-use path, green infrastructure, community parks, complete street design, and improved public connection to the water. We recently won the high-profile Crook Point Bridge design competition, where our vision to revitalize the iconic bridge was selected from 80 proposals received from around the world.

Panama City Neighborhood Recovery Plans

Panama City, FL

We led the sustainability and resilient infrastructure elements of four neighborhood plans. Each plan includes implementable solutions for watershed restoration, coastal adaptation, green infrastructure at neighborhood/block/street/site scales, and design of new public open spaces. Our staff produced a green-blue framework plan for each community as the roadmap for bayou restoration, floodplain/wetland expansion, and connected open spaces integrated with urban design, cultural, and economic objectives.

Dover Cochecho Waterfront Development

Dover, NH

HW is leading a design team to create a plan for the Cochecho Waterfront Site, a 21-acre brownfield property. The plan features a waterfront park, dock, mixed-use development, and new street connections to downtown and adjacent parks. We are producing construction documents for the riverfront park, shoreline restoration, new pedestrian-oriented streets, and mass grading for the site, with a focus on earthwork analysis and shoreline design to plan for climate change and sea level rise.

Project Profile
Sandwich, MA

Partners
GWWO Architects, Inc.
Ray Dunetz Landscape Architecture

Client Contact
Les Lutz, Director of Horticulture & Facilities Management
Heritage Museums & Gardens
508-888-3300 x118

HW Contact
Steve Stanish, P.E., CFM, ENV SP

22106

horsleywitten.com

HERITAGE MUSEUMS & GARDENS WELCOME CENTER

Horsley Witten Group is proud to be assisting Heritage Museums & Gardens (HMG) on our fourth project together by collaborating with GWWO Architects on the design, permitting and construction of the new Welcome Center. HMG is located on 100 acres of magnificent, landscaped grounds and includes trails on the banks of Shawme Pond in Historic Sandwich.

HW is providing civil engineering along with landscape design for the three new sustainable “green” buildings and new ADA accessible pathway from the Welcome center to the gardens. The site design includes site analysis, soil evaluation, building siting, parking lot layout, ADA accessibility, grading and drainage, utilities, and wastewater treatment. The design employs a similar Green Stormwater Infrastructure (GSI) approach used before on past HMG projects, which includes bioswales, bioretention areas, and underground infiltration chambers to treat and manage the increased runoff due to proposed site changes. Ray Dunetz Landscape Architecture is assisting HW with the hardscape elements and the interior plaza grading.

REPORT

Strawbery Banke Museum
Stormwater Management Plan

06.30.2023

Project Profile
Strawbery Banke Museum, Portsmouth, NH

Partners
Placework
Brian Paul Murphy, AIA, Principal
603-319-8199

Client Contact
Strawberry Banke Museum
Rodney Rowland
Director of Facilities & Environmental Sustainability
603-422-7525

HW Contact
Brian Kuchar, RLA, P.E.

21141

horsleywitten.com

STRAWBERY BANKE MUSEUM STORMWATER MASTER PLAN

Strawbery Banke Museum (SBM) collaborated with HW and Placework to create a campus-wide Stormwater Management Plan (the Plan). To address this issue, the Plan takes a watershed approach to identify the problems and provide recommendations to improve localized stormwater management within the surrounding neighborhoods and the SBM campus. The Plan aims to alleviate stormwater impacts while maintaining alignment with the museum’s mission to preserve historic buildings and cultural landscapes for today’s visitors and for future generations.

Goals were established to mitigate local flooding on the campus in the short term and create a more sustainable and resilient Strawbery Banke Campus in the long term, while respecting and preserving the historic character. In order to meet these goals, a number of recommendations, along with conceptual designs, were developed for both on and off campus sites. The designs not only address stormwater, but provide pedestrian and vehicular circulation improvements to enhance the visitor's experience. Next steps for SBM, include seeking private donor and grant funding as well as working with the City of Portsmouth on a relisiency plannning.

Project Profile
Harwich Conservation Trust
South Harwich, MA

Client Contact
Michael Lach
Harwich Conservation Trust
508-432-3997

HW Contact
Michael Easler, RLA

23072

horsleywitten.com

RED RIVER VALLEY PRESERVE MASTER PLAN

Horsley Witten Group is working with the Harwich Conservation Trust (HCT) to develop a Master Plan for their new headquarters on the recently acquired Red River Valley Preserve property. Our services include landscape architecture, site planning, and engineering services. The Master Plan compliments the site's unique natural character, protecting its natural resources while meeting the needs of both daily staff and trail users in the community. The plan exemplifies HCT's vision to protect woods, waters, and wildlife, while providing access for users of all abilities. The Master Plan goals improve site access from Route 28, pervious parking for 25-30 vehicles including overflow parking for larger events, pedestrian and wheelchair access, stormwater management and drainage facilities, outdoor education/ event spaces, siting for a proposed future land stewardship and event barn, landscaping improvements around existing buildings and proposed improvements, utilizing locally native species, and an ADA accessible walking trail loop.

Upon completion of the Master Plan, HW staff will continue to work with HCT to advance the first phase of site design to construction level drawings in coordination with architectural improvements to the original building.

STRUCTUAL ENGINEER

e2 engineers
structural engineers

Residential & Commercial

Cultural, Civic, & Municipal

Academic & Institutional

HISTORIC, RENOVATION, & ADAPTIVE REUSE

e2 engineers provides structural engineering services for historic buildings for renovation, reconstruction, and adaptive reuse projects. We work with public and private clients across a full range of building types and are familiar with antique structural systems A representative list of projects includes:

Stevens & Smith Center
Lancaster, PA
New Canaan Library
New Canaan, CT
Saint Mary's Place Condos
New London, CT
CT Audubon Grassland Center
Pomfret, CT
Mystic Seaport On-Call Services
Mystic, CT
Grace Episcopal Church Pavilion
Providence, RI
United Theatre
Westerly, RI
12 Canal St. Condos
Westerly, RI
Red Barn at Mitchell College
New London, CT
Masonic Lodge Condos
Mystic, CT
Goodwin Barn
Voluntown, CT

e2 engineers
structural engineers

Museums, Galleries, Libraries, & Theaters

Sacred Spaces & Heritage Structures

Recreational & Athletic Facilities

CIVIC & CULTURAL

Civic and cultural buildings are the heart and soul of the places in which we live. These projects present structural engineering challenges ranging from historic building materials, to interior and exterior assembly spaces, to monumental features such as all-glass facades or sculptural elements. e2 engineers has successfully completed cultural and civic projects for a variety of private & public clients. A representative list of projects includes:

Smith-Stevens Museum
Lancaster, PA
Red Barn at Mitchell College
New London, CT
CT Adudubon Grassland Center
Pomfret, CT
New Canaan Library
New Canaan, CT
Grace Episcopal Church Pavilion
Providence, RI
Sports Kingdome
East Fishkill, NY
DNA Learning Center
City Tech, Brooklyn, NY
All Souls Unitarian Church
New London, CT
United Theatre
Westerly, RI

Providence, Rhode Island

THE PAVILION AT GRACE

The Pavilion at Grace is a **5,300 SF addition** housing an **event hall, offices, and a four-story stair tower.** It is constructed with custom **structural steel moment bents supporting light gauge metal framing.**

The addition abuts the original **c.1844** Church which was designed by **Richard Upton**. The building is listed on the **National Register of Historic Places** as the first asymmetrical Gothic Revival Church in America.

Architect:
Centerbrook Architects + Planners

Contractor:
Bowerman Associates

ez engineers
structural engineers

Westerly, Rhode Island

THE UNITED

The United is a **non-profit organization** dedicated to uniting the community through arts. An extensive **stabilization and rehabilitation** project of the **c. 1926 United Theatre** and adjacent **c. 1928 Montgomery Ward Building** was intitated following 20 years of disuse of the properties, which contribute to the **Downtown Westerly, RI Historic District**. The **$12 million, 40,000 SF** project included **substantial reconstruction, repair, and reinforcing** to existing historic framing to accommodate **modern loading requirements,** new lighting & **HVAC systems** and **ADA access.**

Architect: Tecton Architects

Contractor: Keough Construction

Lancaster, Pennsylvania

STEVENS & SMITH CENTER

The **Stevens & Smith Center for History and Democracy** is being developed by LancasterHistory to delve into the legacies of Congressman Thaddeus Stevens and Lydia Hamilton Smith and their roles in the Underground Railroad. The **$22 million project** includes the **restoration, stabilization, & rehabilitation of Stevens' 18th-century home,** which is listed on the **National Underground Railroad Network to Freedom.** The house and adjacent tavern, which abut the Lancester Convention Center, will support new programming and galleries.

Architect:
Centerbrook Architects & Planners

Contractor:
Benchmark Construction Company, Inc.

ez engineers
structural engineers

hartford, connecticut

HARTFORD CITY HALL

The Hartford City Hall Renovation included the design of two new **interior vertical stair towers** connecting the ground and fourth floors, a new **exterior stair** and **ramp** to enhance **ADA accessibility** to a **historic** building. These improvements were intended to modernize the facility and ensure its continued use for years to come. while conforming to **SHPO standards**.

Architect:
Lothrop Associates LLP

Contractor:
TBD

Yellowstone National Park, Wyoming

YELLOWSTONE CANYON ADVENTURE STORE

The Canyon Adventure Store was a condition assessment, code review, and structural repairs This project is currently under design.

Architect: Thomas Hamilton Associates

Contractor: TBD

ez engineers
structural engineers

Yellowstone National Park, Wyoming

YELLOWSTONE GENERAL STORE

The **Canyon General Store** was a condition assessment, code review, and seismic upgrades as part of re-roofing of the building. This project is currently under design.

Architect: Thomas Hamilton Associates

Contractor: TBD

COST ESTIMATOR

ELLANA inc.
Construction Consultants

Congregational Church of Needham Renovations Needham, MA


DEBBY HUDSON / UNSPLASH

Congregational Church of Needham (NCCUCC) is a United Church of Christ congregation. The first building was constructed in the 1880s and subsequent additions were made to the campus. After focusing on improving sustainability in the 2010s, renovations and landscape improvements are underway.

The LDa team designed three concepts for the church board to consider. Improvements include accessibility options throughout the campus, new and improved bathrooms, more parking, expanded garden areas, and new entrances.

Ellana provided cost estimating services to the team.

client

LDa

owner

Congregational Church of Needham

cost

$1.3 million

completion

2024: Ongoing

services

Cost Estimating
Cost Management

First Parish Church

Cambridge, MA

JOHN PHELAN / WIKIMEDIA COMMONS

First Parish Church has been serving the Cambridge community from various structures since 1632. First Parish has links to Harvard University from its establishment. Designed by Isaiah Rogers, the current meeting house is considered an early Gothic Revival masterpiece. This building, along with a parish house built in 1902, is undergoing a multi-phase restoration.

Ellana prepared cost estimates for the feasibility stage of design. Preservation plans created a vision for the historic restoration of the distinctive architectural details of the steeple in addition to universal access to the meetinghouse. The Massachusetts Avenue entrance (at the corner of Church Street in Harvard Square) and tower façade are the focus of the initial phase revitalizing this landmark and its architectural legacy.

Ellana's estimate included ADA accessibility components, glass fiber-reinforced polyester (GFRP), quatrefoil relief transom panels, latticework screens, and sitework at the church entrance.

client

Torrey Architecture

owner

First Parish Church

cost

$8.2 million

completion

2020

services

Cost Estimating
Cost Management

Farley Building Community Center

Hollis, NH

Ellana provided cost estimating services to MT Architects for the addition and renovation to the Farley Building Community Center in Hollis, NH. As once opened as a school in 1877, the Farley Building plans to open as a community center in 2027, rehabilitating an historic, community icon.

client

MT Architects

owner

Town of Hollis, NH

cost

$9.5 million

completion

Services: Ongoing
Construction: 2027

services

Cost Estimating
Cost Management

SMITH HILL VISIONS, *Providence, Rhode Island*

Appendix

Partner Firm Profile:

MEPFP

IMPACT THROUGH ENGINEERING

dbHMS was founded in 2002 on the principles of integrated project delivery and sustainable design. We are a **minority-owned business (MBE)** with 80 employees across offices**.** Our project approach unites key stakeholders and creative design professionals, letting us work collaboratively to deliver innovative engineering solutions. Our team of consultants provides a full range of services including mechanical, electrical, plumbing and fire protection, lighting and information technology design. We specialize in energy modeling, building commissioning, LEED consulting, computational fluid dynamics (CFD), and daylighting studies. dbHMS has been recognized as a **LEED® Proven Provider™** for the Building Design and Construction rating system family by Green Building Certification Inc. (GBCI®).

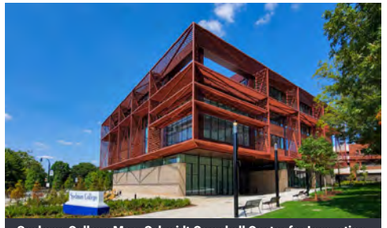
Our staff approaches all projects looking for opportunities to find new solutions to familiar challenges. All of our teams include a dedicated Project Manager, allowing us to engage collaboratively, adjust to changes, and deliver a tailored approach to engineered systems. Our commitment to this design philosophy contributes to buildings we are proud of, including the world-renowned Aqua Tower, a high-rise residential development, The Keller Center at The University of Chicago, a COTE Top Ten Award winner, and the O'Hare Global Terminal.

Arkansas Museum of Fine Arts | Little Rock, AR

MECHANICAL, ELECTRICAL, PLUMBING & FIRE PROTECTION DESIGN

dbHMS provides optimal heating, ventilation, air conditioning, electrical, plumbing and fire protection designs. We are well versed in both conventional and groundbreaking design methods, and have a solid record of performance focused on quality and timely delivery. Additionally, we are on the leading edge in advanced solutions such as Net-Zero Carbon and Energy Design, Radiant Heating and Cooling, and Smart Building Design.

INTEGRATED DESIGN We routinely use an integrated approach to projects, bringing together key stakeholders and design professionals to work collaboratively and interactively from the beginning. The structure, building site, lighting systems, HVAC systems, indoor environment and end use of the building are viewed as a whole building system rather than a number of separate, independent systems. We work as a full-circle team to understand owners' requirements, help architects on building massing and openings, aide engineers in selecting systems, and help contractors to implement proven methods.



Spelman College Mary Schmidt Campbell Center for Innovation & the Arts | Atlanta, GA

Earlham College Visual and Performing Arts Center | Richmond, IN

PROJECT MANAGEMENT Every project has its own unique challenges. To smoothly guide each project to successful completion, one of our principals is constantly and closely involved in design, development and implementation. It is key to our philosophy that parameters are set precisely at the start of each project. Our principals personally coordinate work with technical staff and the client's representatives to ensure quality. To control quality, independent members of our staff validate work as it progresses.

PERSONNEL

LEADERSHIP

Sachin Anand, PE, LEED AP BD+C
Victor Avila
Benjamin Rubach, PE, LEED AP
Mark Wisz, CxA, CEM, LEED AP
Claudia Mattison, PE, LEED AP BD+C, LEED for Homes Green Rater

KEY LICENSED PROFESSIONALS

Tracy Korbus, PE
Krzysztof Pajerski, AIA, NCARB, LEED AP BD+C
David Siegel, PE
Luka Ulicevic, CPD
Sydney Durr, PE

SERVICES

Mechanical, Electrical, Plumbing and Fire Protection Systems Design
Technology Design
Lighting Design
Building Systems & Enclosure Commissioning
Energy & Carbon Modeling
Sustainability Master Planning & Consulting
Smart Building Systems

PRACTICE AREAS

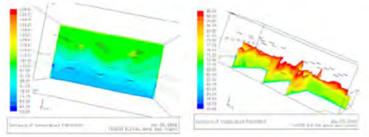
Educational - K12 / Higher Ed
Commercial + Office
Multi-Family Residential
Institutional, Cultural + Spiritual-Municipal
Hospitality
Industrial
Healthcare, Science + Research
Retail

North Wilmington Public Library | Wilmington, DE

INFORMATION TECHNOLOGY DESIGN | LIGHTING DESIGN

We provide specialty IT/AV/Security and Lighting design services for architects, interior designers, and owners. **Information Techology** design services include: structured cabling, access control and intrusion detection, video surveillance, two-way/emergency communications and audiovisual systems. **Lighting Design** services include: lighting layouts, fixture selections, lighting fixture schedules, specifications, lighting calculations, site visits, energy analysis and compliance, emergency layouts, controls, aiming and adjustment.

DATABASED+ - HIGH PERFORMANCE DESIGN



COMPUTATIONAL FLUID DYNAMICS

CFD is the most sophisticated airflow modeling method available, simultaneously predicting airflow, heat transfer and contaminant transportation in and around building spaces.

DAYLIGHTING ANALYSIS

Through targeted studies, we can model a design to harvest daylight utilizing strategies such as dimming controls and light shelves.

SUSTAINABILITY, RESILIENCE, & CERTIFICATION CONSULTING With 200+ LEED projects around the world, we have a proven track record in guiding the planning and submittal processes. Our work as a third-party reviewer for the USGBC LEED program gives us a greater understanding of how to obtain credits needed to certify any project; we have performed over 1,700 reviews to date. Additionally, energy models are performed to determine energy targets; then each facet of the MEP/FP, lighting and technology systems are designed to achieve the goals set forth by the model. Since sustainability is at the core of our practice, dbHMS strives to meet the most stringent thresholds of energy usage.

ENERGY MODELING & BUILDING SIMULATIONS dbHMS has prioritized and valued building performance modeling since its inception. Every project at dbHMS has gone through some level of advanced simulation modeling fulfilling our company vision to "leaving a legacy of stewardship and innovation through our impact on the built environment". That culture of stewardship, innovation, and quality manifests itself in the High Performance Design Studio at dbHMS that performs the modeling and simulation work as well as the feasibility studies and assessment reports for the firm.

BUILDING SYSTEMS & ENCLOSURE COMMISSIONING

BUILDING SYSTEMS COMMISSIONING (Cx) Commissioning (Cx) is a quality-focused process for enhancing the delivery of a project. Our commissioning team will lead the process of verifying that the facility and its systems and assemblies are designed, installed, tested, operated, and maintained to meet the owner's project requirements. Commissioning is proven to save owners money through equipment that functions as designed, occupants who are satisfied and building operators who are informed and well trained.

Testing systems and their interoperability through all likely scenarios to identify possible design, installation, or equipment-level items which could result in delayed opening, loss of production or product, loss of life, or even minor nuisances provides significant value to the owner. The complex buildings of today require a holistic approach for optimally operating systems and dbHMS has a proven track record of expertise, attention to detail, and delivering successful facilities.

INDOOR AIR QUALITY (IAQ) TESTING In present day conditions IAQ is of utmost importance. dbHMS tests the air for impurities, CO2 concentration, contaminants, and proper outside air delivery to ensure optimal air quality of the building inhabitants.

MONITORING BASED COMMISSIONING (MBCX) AND RETRO-COMMISSIONING dbHMS offers real-time monitoring data analyzed by engineers to provide regular reports identifying energy saving measures, predicted failures, maintenance concerns, and evaluations to keep your building on the cutting edge of performance guided by experts in the field.

BUILDING ENCLOSURE COMMISSIONING (BECX) dbhms' building enclosure commissioning (BECx) authorities augment the roles of the architect, builder and system specialists as described above though applying it to building enclosure systems. This includes reviewing designs, inspecting work performed, and testing the installed systems to verify that construction conforms to codes and performance expectations. Our process includes verifying performance of walls, roof, windows, doors, and foundation perimeter for air tightness, control of water penetration, vapor and condensation, thermal bridging as well as durability, constructability, and maintainability. We use sophisticated methods such as thermal analysis, infrared scanning, blower door testing, and spray testing to verify the building meets these key performance measures.

OUR GOALS

- To incorporate the latest in cost-effective technology into design and construction
- To provide expert, energy-conscious, environmental design services to the architecture industry and embody the philosophy of "green" buildings
- To provide professional service for reasonable compensation
- To be completely open and fair with our clients while helping them prosper
- To focus on quality and timeliness of service, and to proactively respond to the needs of our clients

Museum of Science And Industry | Chicago, IL

Temple University Tyler School of Art & Architecture | Philadelphia, PA

Chicago Center For Arts & Technology | Chicago, IL

Art in Motion | Chicago, IL

CIVIL ENGINEER

HORSLEY WITTEN GROUP

Sustainable Environmental Solutions

Horsley Witten Group
Sustainable Environmental Solutions

Science

Wetlands & Streams: Resource Area Delineation | Ecological Restoration | Habitat Survey | Rare Species | Permitting

Hydrogeology: Sampling & Monitoring | Modeling | Groundwater Protection | Water Supply Development

GIS Services: Data Development | Spatial Analysis | Model Development | Remote Sensing | Risk Assessment

Environmental Site Services: Environmental Due Diligence | Site Assessment & Remediation | Licensed Site Professional

Planning

Community Planning: Comprehensive Planning | Conceptual Design | Community Engagement | Regulatory Reform | Climate Resilience & Adaptation | Hazard Mitigation | Open Space/Recreation Planning

Water Resource Planning: Integrated Water Management | Watershed Assessment & Planning Nutrient Management | GIS Services

Coastal Resources: Land Use & Ecosystems | Coastal Watershed Planning | Habitat Assessment | Pacific & Caribbean Island Water Resources

Engineering

Core Services: Civil | Environmental | Survey-GIS | Construction Administration | Permitting

Specialization: Stormwater | Water Supply | Wastewater | Shoreline Stabilization | Stream Restoration

Design

Site Design: Landscape Architecture | Ecological Design | Parks Pathways | Green Stormwater Infrastructure | Affordable Housing Sites | Urban Design

Marketing & Education: Graphic Design | Web Design | Branding Manuals & Handbooks | Handouts & Presentations | Signage

Training

Public Sector: Emergency Preparedness & Response | Water Security | GIS | Custom Technical Trainings

Best Practices: Regulatory Tools | Stormwater Management & Design | Source Water Protection | Watershed Planning

HorsleyWitten.com **@HorsleyWittenGroup** **Horsley Witten Group, Inc.** **@HorsleyWittenGroup**

Horsley Witten Group
Sustainable Environmental Solutions

Profile

Horsley Witten Group is an interdisciplinary team of engineers, scientists, planners, and landscape designers committed to delivering quality services. The success of our practice is rooted in responsiveness, innovation, and client relationships. Our dedicated staff of highly skilled professionals manages complex projects in New England and beyond. For over 30 years, the firm has excelled serving as a liaison between decision makers and the public, and translating technical subjects into understandable concepts. The ability to move across disciplines and communicate with groups from all backgrounds sets us apart. HW's award-winning projects address critical environmental challenges including climate change, coastal resiliency, watershed health, and resource protection.

Our services include site and community design, green infrastructure implementation, public engagement, regulatory reform, data system development, resource assessment, habitat restoration, and emergency preparedness. Our clients include the U.S. EPA, NOAA, and the U.S. Department of Justice as well as more than 100 New England municipalities, several state agencies, tribal agencies, non-profit organizations, private organizations, and multiple universities and colleges. HW is a New England-based corporation headquartered in Sandwich, MA with regional offices in Boston, MA, Providence, RI, and Exeter, NH.

Mission and Vision

Mission Statement: To address environmental and social challenges with sustainable solutions.

Vision Statement: HW envisions a world where people and nature thrive together.

STRUCTUAL ENGINEER

e2 engineers
structural engineers

e2 engineers
structural engineers

Services

New Construction & Renovations
Temporary Shoring Design
Foundation Underpinning Design
Construction Administration
Construction Oversight
Peer Reviews
Expert Witness
On-Call / House Doctor

Sectors

Private & Public
Civic & Cultural
Commercial
Health, Science, and Technology
Higher Education
Industrial
K12 Education
Mixed-Use
Multi-Family Residential
Municipal/Federal
Single-Family Residential
Specialty Structures
Sports & Recreation
Historic & Adaptive Reuse
Waterfront/FEMA
Sustainable Design

Technology

Revit
ETabs
Risa
Forte
Tedds

Licenses

Connecticut
Delaware
Florida
Georgia
Illinois
Louisiana
Maine
Maryland
Massachusetts
Michigan
Missouri
Montana
Nebraska
New Hampshire
New Jersey
New York
North Carolina
Pennsylvania
Rhode Island
South Carolina
Tennessee
Utah
Vermont
Virginia

FIRM PROFILE

e2 engineers was established in 2002, when its Founding Principal, Scott Erricson, set up his tiny hall closet as a home office, and completed the first 5 projects under the e2 engineers' name.

The name was developed with the help of Scott's second son, who at 5 years old, loved the idea of a name with a number in it. When Scott suggested "e2," thinking maybe one day his son would join the firm, he broke a precedent in the design world of naming his firm solely after himself.

The decision reflects the firm's client-centered mindset and it was excellent foresight because while the younger Erricson never joined e2 engineers, many others did.

Chad Vogt, a brilliant engineer with a similar entrepreneurial mindset, merged his independent practice with e2 engineers in 2010. as Principal, Chad brought along a wealth of new practice areas and a rare skill for managing the internal operations of a growing design firm, including developing young engineers.

e2 engineers is now a well-established structural engineering practice with two locations and ten licensed engineers on staff. We have a record of success spanning from Maine to Florida and several states westward. Associate Principals Kate MacDougall and Mac Schroeder represent the start of our 2nd generation of ownership, and we can't wait to see what the next chapter brings.

Over two decades of ground-up growth speak to e2 engineers' practical and creative design process. Our clients trust our expansive knowledge base and rely on our proactive approach.

We understand your vision.

We understand your building.

We are not your average engineers.

New London, CT Concord, MA

COST ESTIMATOR

ELLANA inc.
Construction Consultants

About Ellana

Incorporated in 1998, Ellana Construction Consultants is a certified Woman-owned Business Enterprise (WBE) and Disadvantaged Business Enterprise (DBE) construction consulting firm providing four core services consisting of cost management, project controls, owner representation and professional training services to a wide range of A/E/C industry clients. We are also certified WBE through the Woman's Business Enterprise National Council (WBENC) and SBA's Women Owned Small Business (WOSB).

cost management

Our approach to cost management involves safeguarding your interests at every phase, from concept to design and from procurement through construction. We focus our efforts on managing costs as projects escalate, and ensure the design meets your needs and budget constraints. At every stage, we manage the cost and risk performance against targets and identify opportunities for improvement.

We identify the most cost-effective method of directing and controlling your project, then collaborate with the design and construction team to establish the best delivery type and define clear accountabilities and responsibilities from concept to close-out.

As part of our cost management process, we work with the team to identify, and address potential risks to mitigate unforeseen issues and provide solutions to discrepancies or conflicts that arise.

Rhode Island experience

We are proud to provide services to design teams and support various institutions in Rhode Island in their pursuit. Our work spans from Master Planning efforts and new construction to assessments and large renovation projects. We provided estimates for projects that total $150,000 to upwards of $1 million for a variety of facilities..

ELLANA manages costs by engaging in a proactive and collaborative approach with the project team. We interact with design professionals and the project team to develop a clear understanding of project scope and goals and ensure that design decisions adhere to the established budget parameters and baselines.

An effective cost management effort provides an understanding of & means to:

- **Basis of funding**
- **Consistent and schematic metrics**
- **Manage program and efficiency**
- **Monitor cost and value drivers**

UNION

Union Studio Architecture & Community Design
(401) 272.4724
unionstudioarch.com

Providence
160 Mathewson Street
Suite 201
Providence, RI 02903

Philadelphia
109 South 13th Street
Suite 3B
Philadelphia, PA 19107

@unionstudioarch