Lakeshore Nature Preserve Outreach Center

Phase I Planning

09.27.22

Highly sustainable, carbon-neutral campus facility

— Support ongoing and new teaching/field research activities
— 50-person multi-purpose community space
— Strong indoor / outdoor connections
— On-site offices for Preserve staff
— Field management tool + equipment storage / hands-on wet laboratory
— Interpretive display of Preserve activities and cultural + natural history

Lakeshore Nature Preserve
University of Wisconsin System
Project ID: A-22-007 / 9950-2281

Interview  |  06.30.2022

In partnership with

Architecture
Landscape Architecture
Civil Engineering, Structural Engineering
Mechanical, Electrical, and Plumbing Engineering
Cultural Consultant
Cost Estimation

Design & Planning Team
AGENDA

• Recap
  - Phase I Advanced Plan Goals
  - Since we last met...
  - A Pattern Writing Summary

• The Site Selection

• Unfolding the Site and Building Design
Recap: Phase I Advanced Plan Goals

Phase 1 - Advanced Plan

- Site Survey & Exploration
- Goals & Visioning Sessions
- Develop Building Program
- Preliminary Schematic Design
- Conceptual Cost Estimation

Completion - Spring 2023

Phase 2 - Design/Construction

Design of Building
(Schematic Design, Design Development)
Additional Public Meeting
Construction Documents
Construction of Building

Completion - 2026
Recap: Since We Last Met

- Public Meeting #1 & Blessing Ceremony
- Design Review Board Update
- Aldo Leopold Benchmark Tour
- Meet with UW Transportation
- Program Definition with Staff
- Public Meeting #2

- 11/01/22
- 11/15/22
- 12/06/22
- 12/21/22
- 3/01/23
- 3/28/23

- Site Selection based on feedback
- Site Design/Building location identified
- Conceptual Building Design Presented to Staff
A Pattern Writing Summary
Pattern Writing

The goal of writing Patterns is to gain a deeper understanding of how buildings and site can be configured to support both human activity and natural processes in a harmonious way.

Writing Patterns helps identify the deeper social, spiritual, and emotional values inherent in a place.

This process offers solutions for making a place more alive, more functional, and more inviting for staff and visitors.
A Pattern describes the relationship of human activity and the built and/or natural environment best suited to enhance that activity.

Issue stated: Solution offered

A Pattern can be archetypal, crossing culture, space and time.

When a place is alive, Patterns occur at all levels of scale, from larger site-based issues to fine detail.
Lakeshore Nature Preserve Outreach Center

Initial Patterns
The beginnings of a shared language

I. Why Build Here?
II. Kinship with the Land
III. Healing the Threshold
IV. A Building for People Who Want to be Outside
V. Safeguard (and Rediscover) The wall
VI. Landscape Management Made Visible
VII. Storage Everywhere
VIII. Treasuring Volunteers
IX. Strong Stable Shell
I. Why Build Here?

ISSUE:
For the casual visitor it can be easy to take for granted the effort required to maintain the Preserve. The work being done behind the scenes is not always obvious. Thus, the intrusion of a building may at first seem counterintuitive. However, the resources to properly manage the Preserve are scattered throughout campus, creating challenges and inefficiencies for both staff and volunteers. The current way of operating is not sustainable.

SOLUTION:
A new Outreach Center will give staff and volunteers a place to gather, train, store materials and equipment, and administer the many ongoing projects taking place here. A new building here will also raise awareness of the work required to protect and restore this important ecosystem. Finally, the Center will educate students and the community about the sacred cultural history of this place to the Tribes of Wisconsin.

Initial Patterns
II. A Kinship With the Land

ISSUE:
Indigenous peoples have lived in kinship with this land for thousands of years, taking only what they needed and improving the health of ecosystems along the way. How can we enlarge our notions of sustainability to include kinship with all living beings, human and otherwise?

SOLUTION:
Be certain that the ‘health of the land’ becomes the measure by which all building decisions are made. Examine each question in terms of what is ethically and aesthetically right, as well as what is economically expedient.

“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”
Aldo Leopold, A Sand County Almanac
III. Healing the Threshold

ISSUE:
The Preserve entrance along University Bay Drive is key. Everything happens here. It is the boundary between the urban realm and a place in nature. It is the intersection of all activity - vehicle traffic, fast moving bicycles, pedestrians crossing from parking. Yet this essential space is a tangle of overlapping paths and barriers. Despite the legacy of the historic gate and wall there is no real core, no meaningful threshold into the Preserve.

SOLUTION:
No matter where the new building is sited this condition must be healed. Design efforts must create a new ‘front door’ to the Preserve.
IV. A Building for People Who Want to be Outside

ISSUE:
For visitors to the Preserve a building should not be the main event.

SOLUTION:
Think of the new Outreach Center as a pathway first, and an invitation, into the landscape. Configure the Center to not only enhance and strengthen the Preserve entrance, but to celebrate the pedestrian experience. Create a place for gathering or lingering, for embarking and for returning.
V. Safeguard (and Rediscover) the Wall

ISSUE:
The iconic stone wall and entry portals are an important part of the Preserve’s history and identity. Any changes to the site must respect the wall’s contribution to a sense of place.

SOLUTION:
Locate the building so that it may safeguard the visibility of the wall and entry portals. Consider new ways to highlight the distinct character of the wall - its assemblage of uniquely interwoven stones, its roughness of texture, and its subtle multi hued colors. Create views to the wall from inside the building and from gathering spaces outside, offering focal points for new discovery of an old familiar friend.
VI. Landscape Management made Visible

ISSUE:
It takes work to manage a ‘natural’ landscape and to support the ecological health of the Preserve. Many of these necessary activities, both by staff and volunteers, are often little understood by those who visit the Preserve or the larger community.

SOLUTION:
Locate maintenance support areas, such as garages or work yard, so they are evident to visitors (yet secured when not in use).
Organize the building and site to provide convenient access to the Preserve for staff while maintaining clear separation between public and private zones of activity.
The Site Selection
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**SITE #1 (Inside The Wall)**

**The Site Selection**

**PRO**
- “Popular pedestrian access point”

**CON**
- “Feels intrusive into the Preserve”
- “Isolated from the Class of 1918 Marsh”
- “Too close to mapped archeological sites”
- “Space is tight - no room to expand”
- “This is a beautiful spot, but should we put a building here?”
The Site Selection

SITE #2 (West Wall)

PRO

"Project could clean up areas of plantings non-native to Preserve"

CON

"Feels intrusive into the Preserve"

"Too remote - not a good place for a welcome center"

"Tramples on habitats"

"Too much vegetation would be removed"
The Site Selection

SITE #3 (Reinforcing the Threshold)

**PRO**

“Like locating it on a previously disturbed site”

“Requires the team to resolve problematic traffic conflicts”

“Good site access - close to parking and bus stops”

“Already a high use area, put building here instead of creating new high use area elsewhere”

**CON**

“The parking lot should be studied - do we need that parking?”

“Building may block views of wall”
The Site Selection

SITE #4 (West End)

**PRO**

“Good relationship with the marsh”

**CON**

“Feels too far from main entrance”

“Would require crossing the road to get to Preserve”

“Too much traffic noise”
RECOMMENDED SITE

SITE #3

The Site Selection
Unfolding the Site and Building Design
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SITE #3 Reinforcing the Threshold

+ Create a better balance between modes of travel
+ Create a welcoming invitation to the preserve
+ Reduce congestion at this primary location
+ Create safer passage into the preserve
+ Enlarged pedestrian zone
Unfolding the Site and Building Design

1. A Central Spine
   - Emphasize pedestrian access to Preserve
   - Focus attention on main gate and wall
   - Create strong center near Preserve entrance
   - Unify marsh with Preserve
   - Create safe pedestrian passage

2. Protect The Marsh
   - Locate road no further south than existing parking
   - Maintain or reduce impervious area
   - No additional stormwater to marsh

3. Clarify Circulation
   - Defined ped/bike/vehicle pathways
   - Introduce traffic calming
   - Increase pedestrian safety
   - Maintain overall traffic volume

4. A Parking Solution
   - Support increased visitation
   - Create new amenities to attract other modes of transportation
   - No increase beyond existing 100 parking stalls

5. Maintain Bioswale Integrity
   - Maintain inlet from western bio swales
   - Maintain outlet to lake
   - Maintain capacity
Overall Site Concept

+ New road location creates unified space for building and parking
+ Vehicle/bike/pedestrian circulation improved for safety and ‘sense of place’
+ New pedestrian path highlights main entry to Preserve
+ Solar photovoltaic panels above accessible pathway leading to building rooftop overlook
+ New gathering area at Class of 1918 Marsh
+ Restored native prairie/wetland areas

Unfolding the Site and Building Design
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Building Concept:
Ground View Looking Northwest

+ One-story building organically blends into the landscape
+ Accessible pedestrian path leads to rooftop overlook
+ New pedestrian path highlights main entry to Preserve
+ ‘Net-Positive Energy’ building design employs highly sustainable design strategies
Building Concept:
Overhead View Looking Southeast

+ Organic building form curves around and highlights historic Preserve stone wall
+ Accessible pedestrian pathways lead to rooftop overlook
+ Strong indoor-outdoor connections support multi-use public spaces
+ Building oriented to support ongoing land management efforts
Building Concept:
Overhead View at Work Yard

+ Work yard provides convenient staff access to Preserve
+ Site circulation and parking increases safety and ‘sense of place’
+ Building ‘green roof’ helps manage site stormwater
Building Concept:
View at Tree Canopy Walk Entrance

+ Low Impact Accessible walkway through the tree canopy and past the historic stone wall
+ Opportunities for birdwatching
+ North-facing side of building provides generous views into the Preserve
Unfolding the Site and Building Design

Net Positive Energy
+ 9000sf Solar Panel Array over pathways
+ Highly insulated building envelope
+ Large north facing windows for indirect lighting
+ East to West building orientation good for solar access in winter months
Unfolding the Site and Building Design

Innovative Products

- Rammed Earth walls (Sirewall)
- Serves as the exterior and interior finish
- Locally sourced natural materials
- Highly insulated thermal mass
- 100 year life expectancy
INNOVATION IN SUSTAINABILITY

• The most rigorous and advanced third-party sustainability certification in the world.
• There are currently no Petal-Certified or Full Living Buildings in the state of Wisconsin.
• The Living Building Challenge consists of twenty Core Imperatives categorized into seven Petals: Place, Water, Energy, Health and Happiness, Materials, Equity, and Beauty.
• The design team attended an initial consult with the Living Buildings Certification Manager. After reviewing our introductory materials, LBC has indicated that this project has a potential pathway to full Living Building Certification.
Thank you!