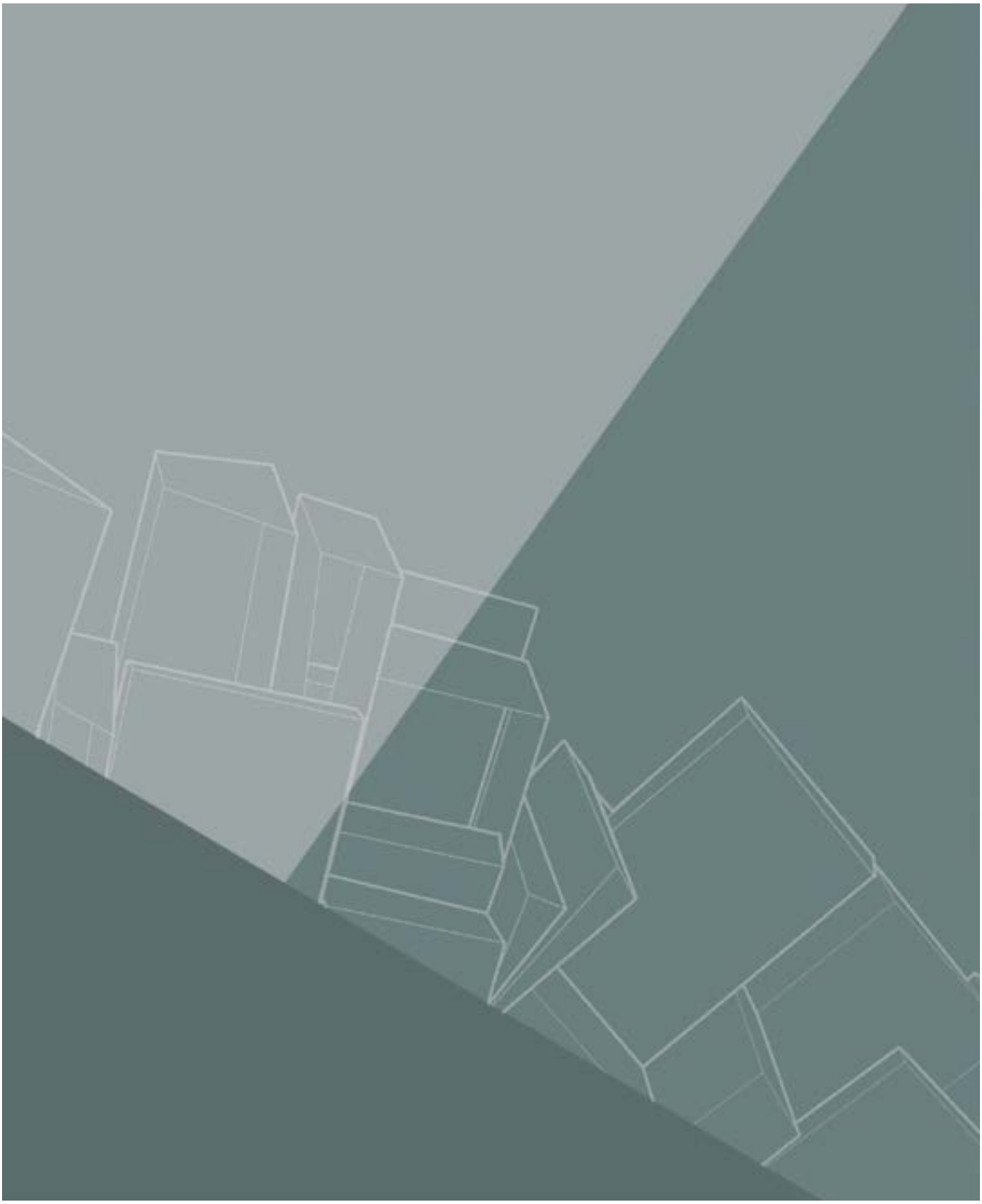
Portfolio

Cora Blackford
2020 - 2023



Cora Blackford, AIAS

I am a fifth-year architecture student at the University of Kansas. I have recieved a BA in Architectural Studies and certifications in Historic Preservation and Service Learning. I will receive a Health and Wellness Architecture certification upon graduation. I enjoy designing practical, efficient spaces that promote the wellbeing of their users. I have a proactive attitude and love taking on the unique challenges each project poses.

In the future, I look forward to bringing a community-oriented approach to the design of public facilities, as well as continuing the preservation of historic buildings that have great potential to serve new users and enrich neighborhood fabrics.

In my free time, I enjoy playing piano, visiting historic sites, collaging, and walking my dog Cleo.

Thank you for viewing my work!

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CORA BLACKFORD
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EDUCATION

University of Kansas School of Architecture & Design — **Lawrence, KS**

Master of Architecture — Expected May 2024

Health and Wellness Architecture Certification

Bachelor of Architecture — Completed May 2023

Historic Preservation Certification

Service Learning Certification

EXPERIENCE

Hernly Associates — **Lawrence KS**
Architectural Intern — 2022 - Current

Produce schematic and construction drawings. Write nominations for National Register of Historic Places projects. Write tax credit nominations.

Lawrence Group — **St. Louis, MO**
Architectural Intern - Health and Wellness Architecture Department — June - December 2023

Assisted in a large-scale documentation effort for various hospital and clinic projects. Worked with project planners for each department of a hospital in the design development phase. Other tasks included: completing construction punchlist reports, creating renderings, and analyzing life safety plans.

Lanmar Services — **Austin, TX**
Architectural Intern — 2018 - 2020 (summers)

Operated a laser scanner and assisted in the documentation of buildings through the conversion of laser scans to BIM models. Notable projects included the Alamo and Frank Lloyd Wright's Taliesin West.

HONORS

University of Kansas Merit Scholarship	2019 - Current
Webster Groves Lion's Club Scholarship	2019
The National Association of Women in Construction (NAWIC) Scholarship	2021
University of Kansas Study Abroad Scholarship	2022
AIA St. Louis Scholarship	2022
University of Kansas Honor Roll	2019 - Current

SKILLS

Revit, Enscape, Lumion, Adobe Suite, Microsoft Office Suite

01

nature's crossroads

University of Kansas
Professor Steve Padget
Partner: Eryn Herrera
Spring 2023

Nature's crossroads is a nature discovery center located in the Crossroads neighborhood of Kansas City, Missouri. It is designed to meet the criteria of the Living Building Challenge and preform at passive building standards. The Living Building Challenge places emphasis on eight "petals" of design: place, water, energy, health & happiness, materials, equity, and beauty. In addition to meeting the criteria of the Living Building Challenge, Nature's Crossroads fulfills the "Triple Bottom Line" of sustaining culture, environment, and economy.

The building and its site are self-sufficient and implement features such as biologically based waste water processing and site runoff water collection.

site

The site of the Nature Discovery Center is generous given its urban context, but poses some challenges grade-wise. The building site (outlined in green) is approximately twenty feet below the grounds to be used for gardens and outdoor amenities (the green space to the left of the green outline).

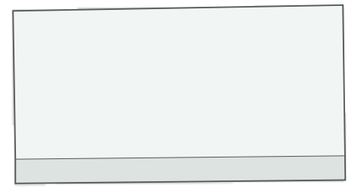
concept development

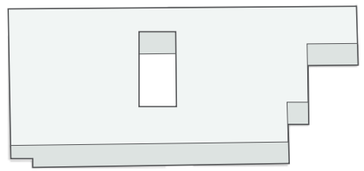
One of the primary design goals for Nature's Crossroads was to celebrate the Living Machine - a biologically based waste water processing system that allows the building to collect and re-purpose waste water. The first decision in the design process was to carve out a courtyard to serve as a home for the living machine. The location of the courtyard allows it to be seen from all major public areas of the first floor. The courtyard also allows for the passage of light and air to spaces central to the plan.

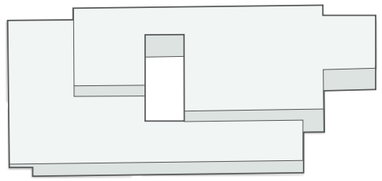
Access to service spaces is provided via an alley between the discovery center and its neighboring building. The front facade of the discovery center steps back to conceal service access as much as possible.

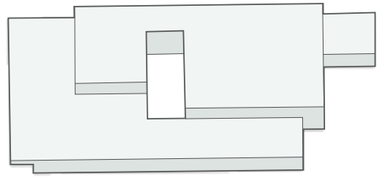
The second story of Nature's Crossroads is offset from the first story, giving ample room for a rooftop walking path and the illusion of a human-scale entry on the front facade. The second story is designed to match the grade of the upper green space, and the green space can be accessed directly from the building's second floor, from the second floor green roof, or from an outdoor ramp adjacent to the building.

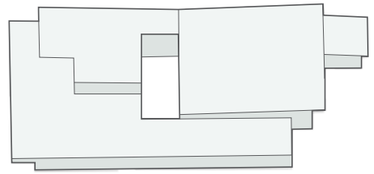
Finally, the building is topped with a butterfly roof to aid in water collection. The overhangs of the roof aid in shading harsh sun.





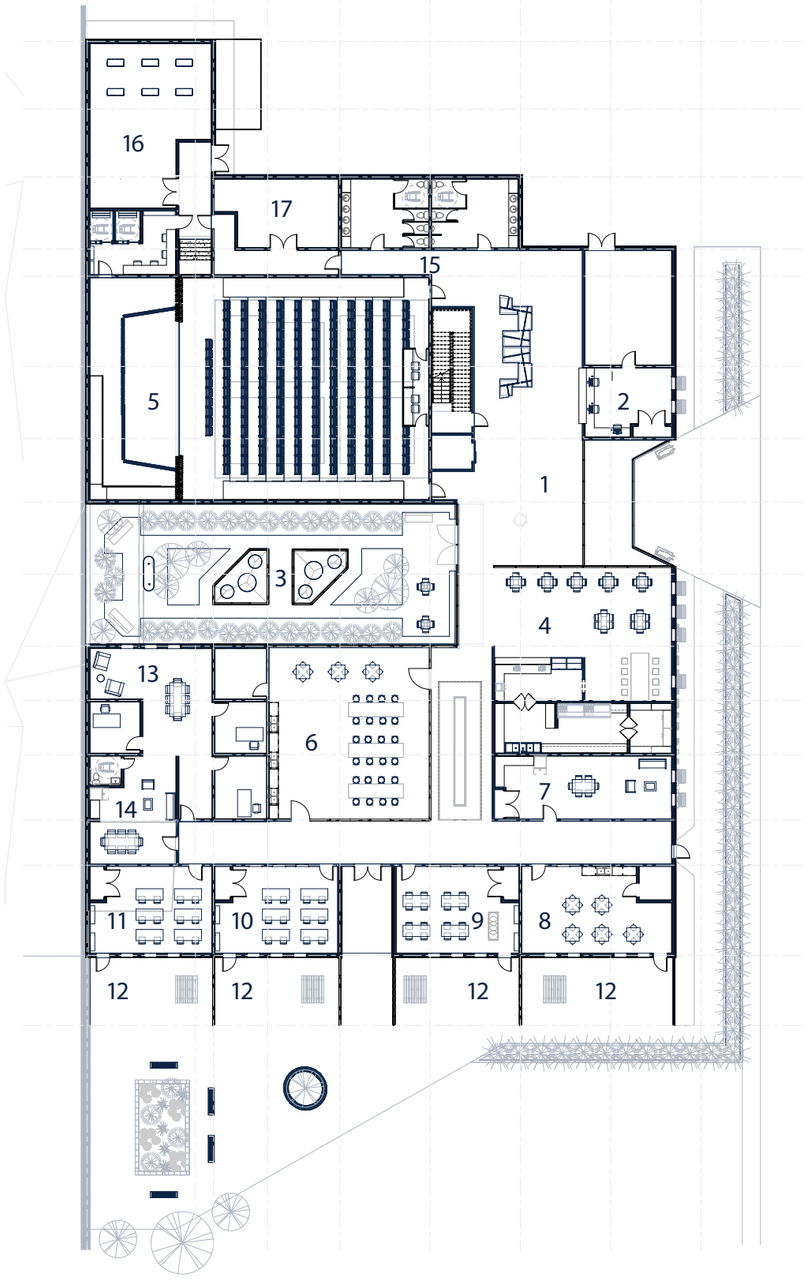






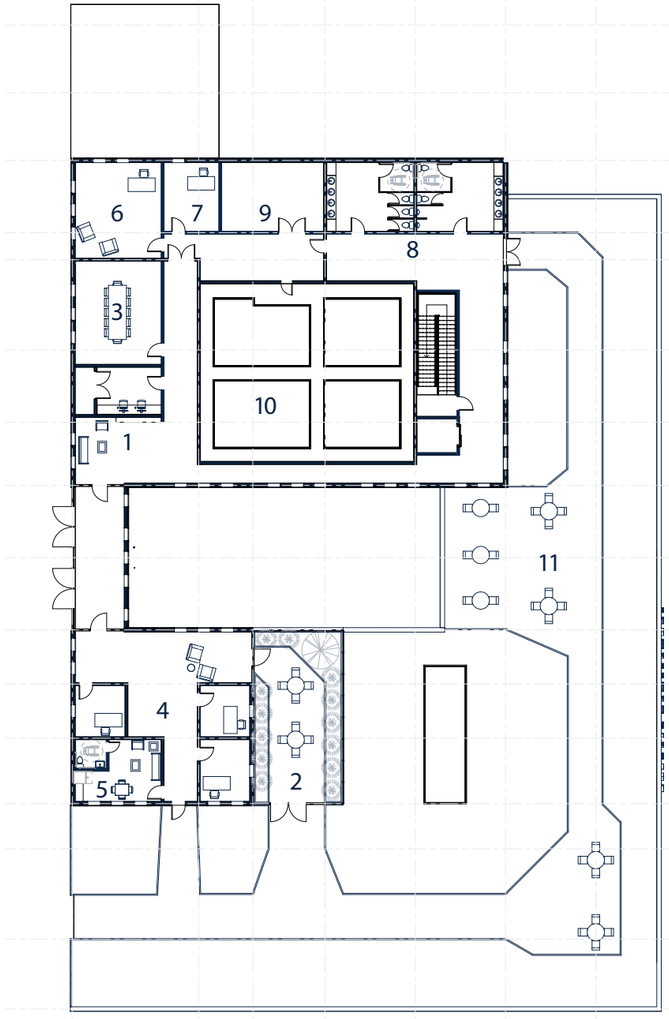
outdoor amenities

The outdoor amenities of the Nature Discovery Center include: four outdoor classrooms, a demonstration garden, an amphitheater, a ramp between the upper and lower grounds, a playground, community garden beds, a prairie garden, a walking path, and a series of water retention ponds to collect site water runoff.



level one

1. Lobby
2. Reception
3. Courtyard
4. Cafe
5. Auditorium
6. Gallery
7. Volunteer room
8. Large classroom
9. Classroom 1
10. Classroom 2
11. Classroom 3
12. Outdoor classrooms
13. Office suite
14. Break room
15. Restrooms
16. Mechanical room
17. Mechanical room 2

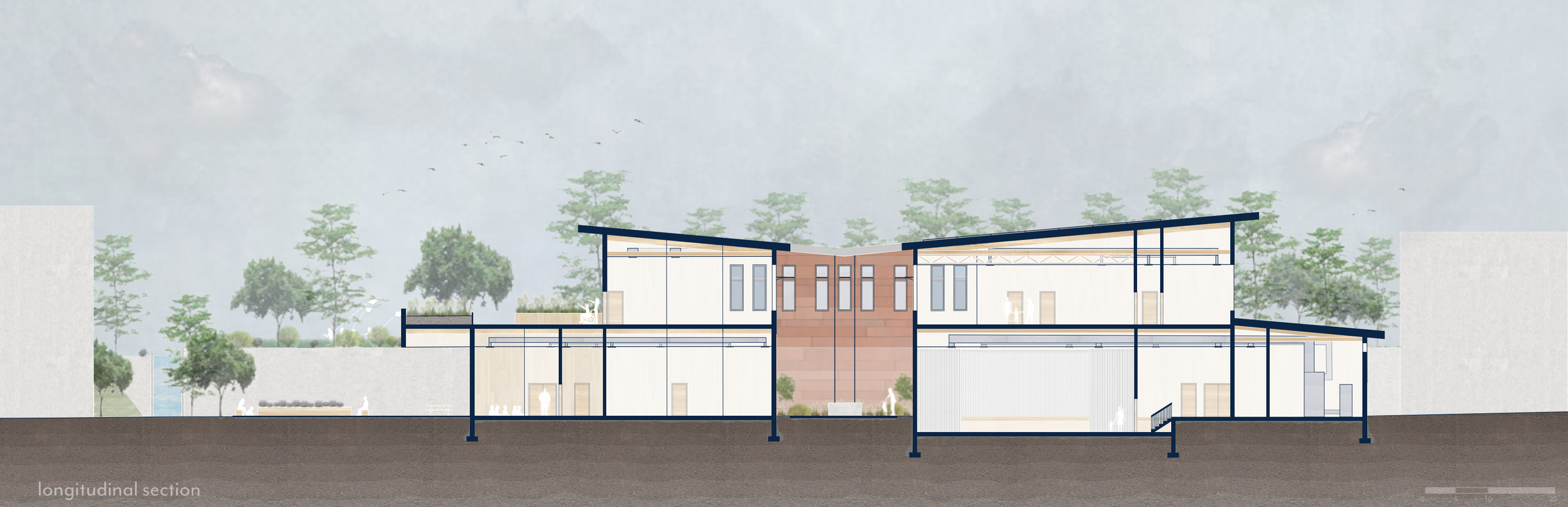


level two

1. Reception
2. Greenhouse
3. Conference room
4. Office suite
5. Break room
6. Large office
7. Small office
8. Restrooms
9. Mechanical room
10. Auditorium acoustical space
11. Outdoor seating area

east elevation

west elevation



longitudinal section

Pages 13 - 14

courtyard

Pages 01 - 02

green roof

cafe

02

haven

University of Kansas
Professor Chad Kraus
Dirt Works Studio
Spring 2022

Dirt Works Studio is a third year design-build studio focused on direct, hands-on engagement with places, materials, and communities. In Spring of 2022, the studio had the tremendous opportunity to partner with the Good Work, a non-profit organization with a mission of providing housing to individuals suffering domestic violence, to create a comfortable and sustainable home while competing in the U.S. Department of Energy Solar Decathlon.

During my time in the studio, I assisted in conceptual development, conducted energy analysis, and played a large role in managing specifications for the project and constructing a physical scale model of the home.

DIRT
WORKS
STUDIO

(Photos taken by Jackson Bontty, 3rd year M.Arch, at the University of Kansas)

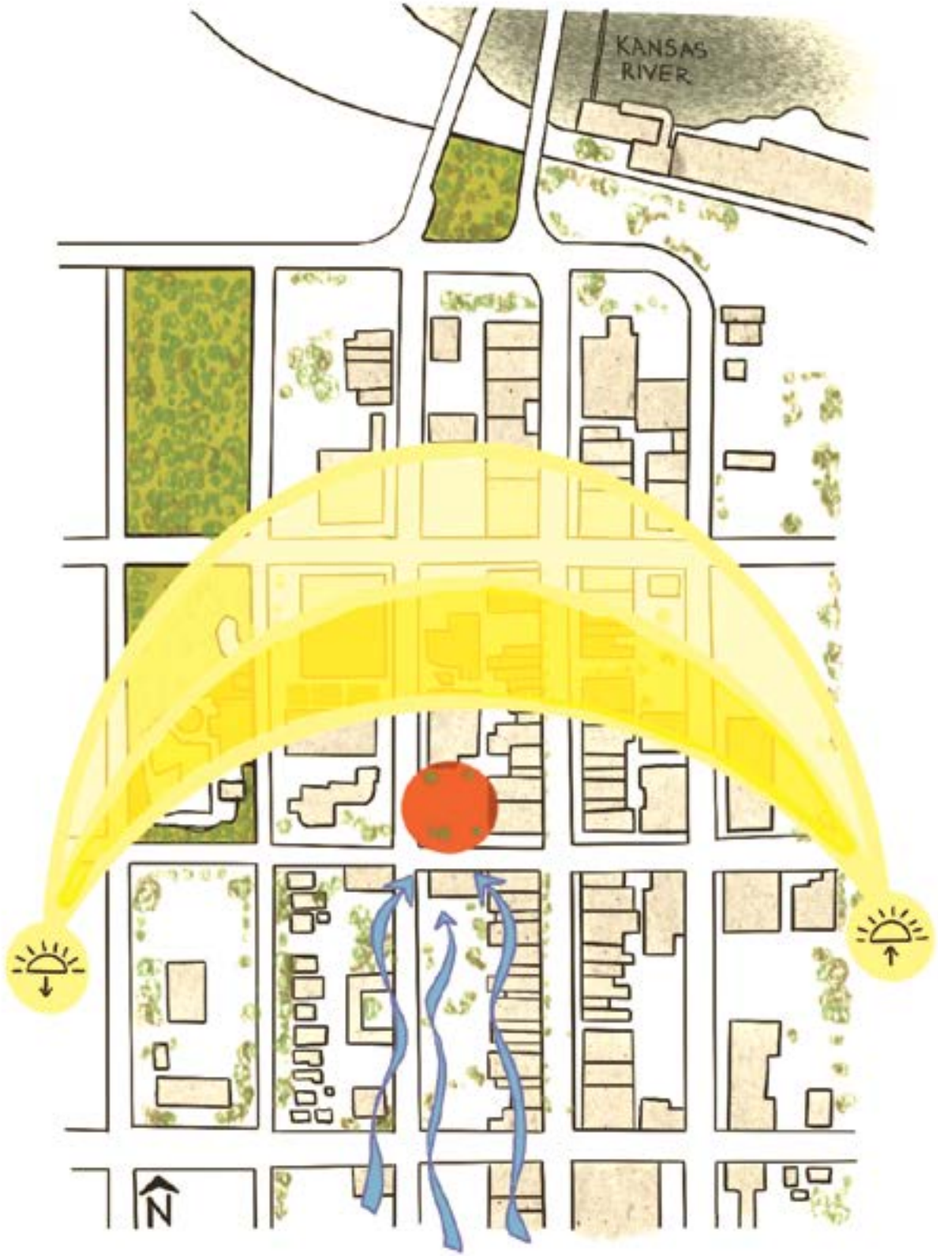
03

lawrence transit nest

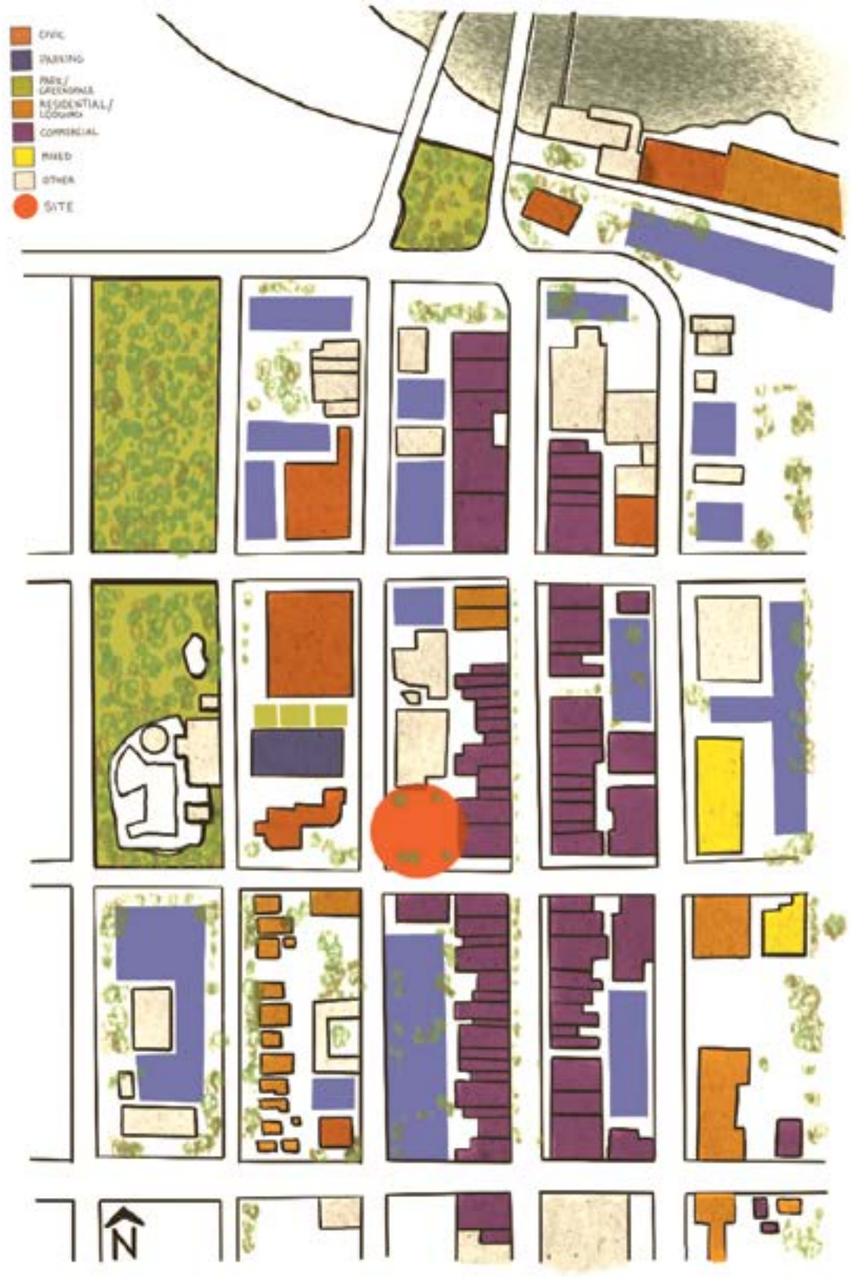
University of Kansas
Professor Gregory Critchlow
Fall 2021

The Lawrence Transit Nest is situated in a compact site within downtown Lawrence, Kansas. The goal of this project was to create a multi-modal transit center with retail, a small grocery store, offices, and temporary boarding units for visiting professors. Although the size of the site presented some challenges, it is located right where it need to be to provide the easiest experience for travelers coming to and from downtown Lawrence.

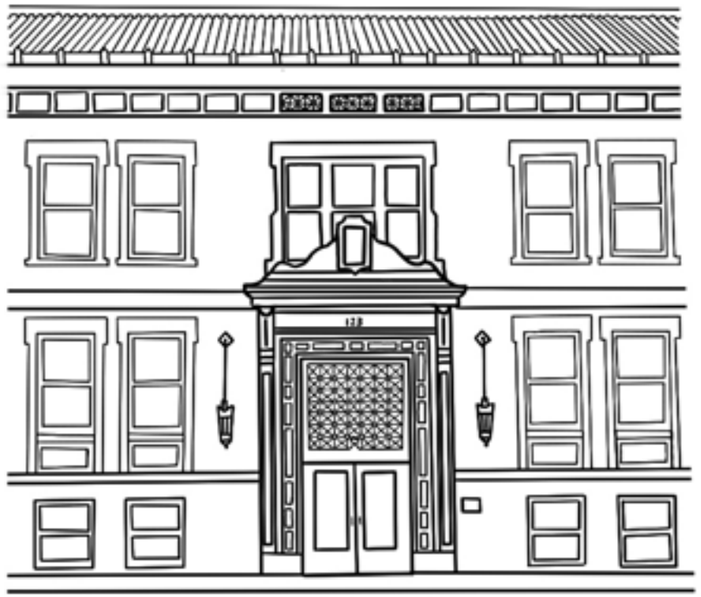
The Lawrence Transit Nest features a clear devision of public and private, with an open-air first level and entries on both Eighth Street and Vermont Street. Slotted floor-to-ceiling windows on the first floor allow for fun shadows and a controlled indoor/outdoor feel. A vertical louver system completely wraps the building on the second and third floors. This plays into the “nest” theme and allows for sun control and some privacy, as most of the exterior walls on these floors are window-walls.

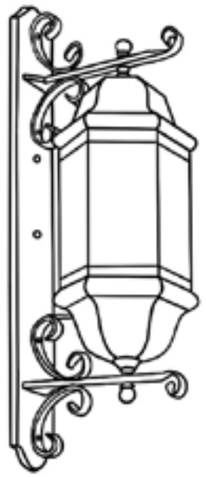


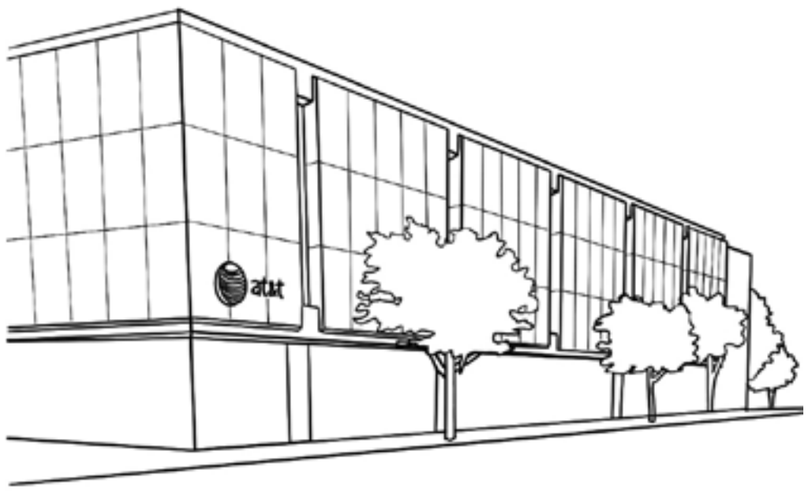
climatic context

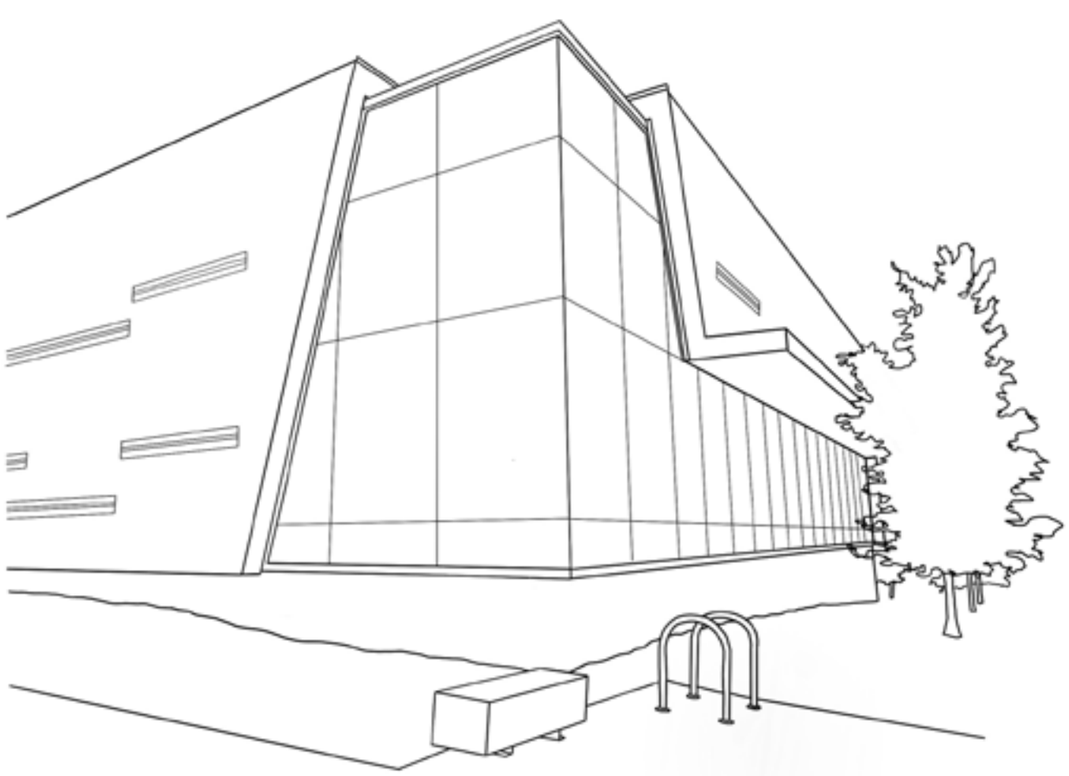


built environment context





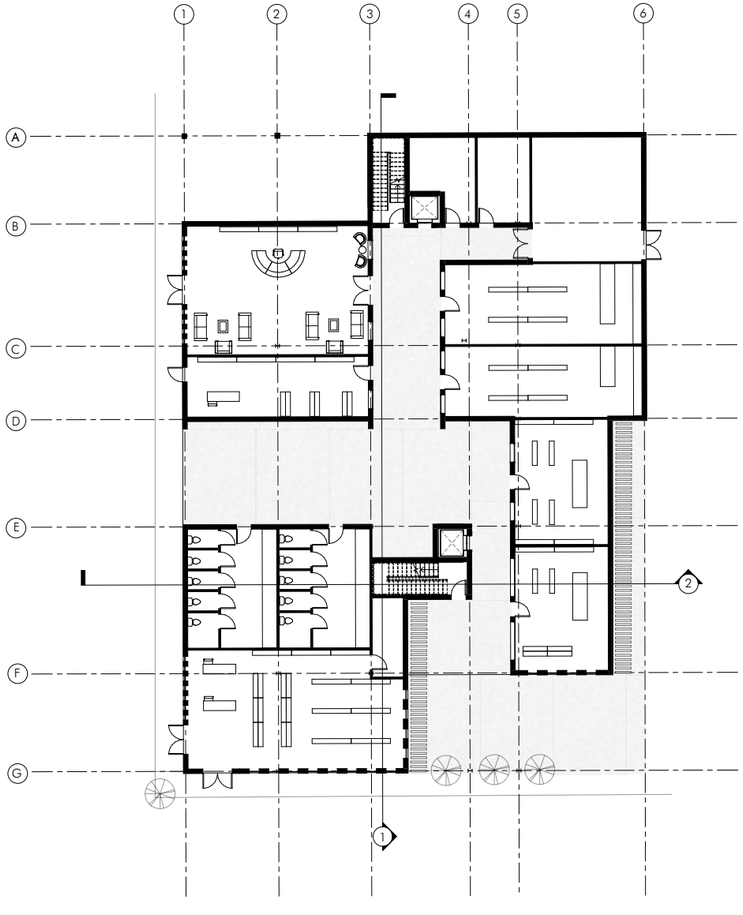




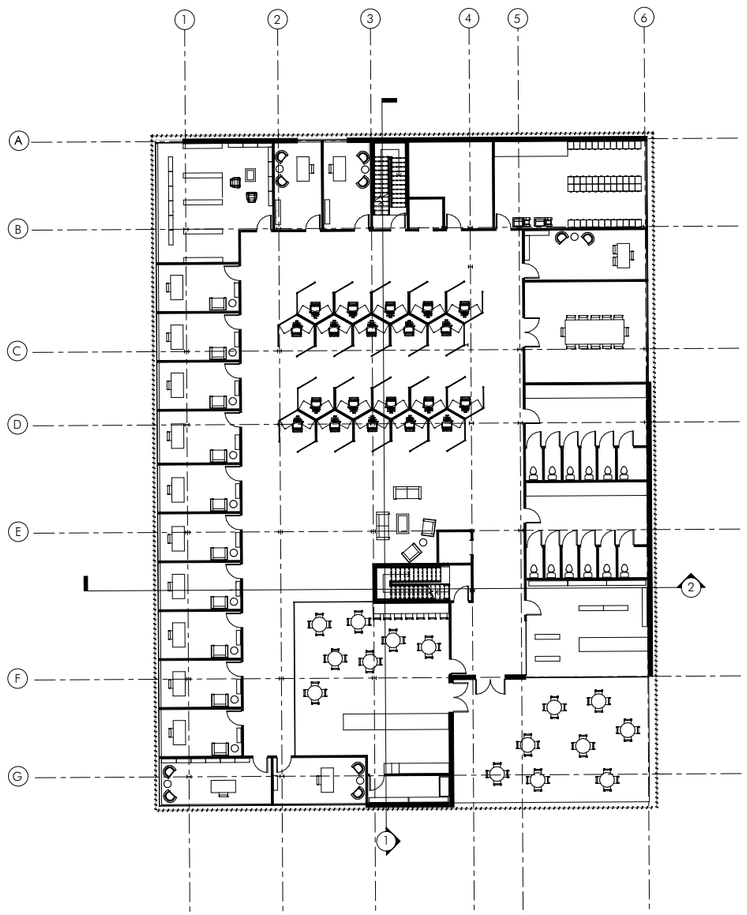
built environment context

The site of the Lawrence Transit Nest is situated in a diverse neighborhood with surrounding buildings of a range of typographies. The transit nest's immediate neighbors include: the Fire Department of Lawrence, KS, The Police Department of Lawrence, KS, the Lawrence Public Library, an office building, and an AT&T building. Each surrounding building not only has a unique function, but a unique style. It was important to take this into consideration when designing the facade of the transit nest. The style of the new building needed to complement the existing fabric of the neighborhood while still creating its own identifiable identity.

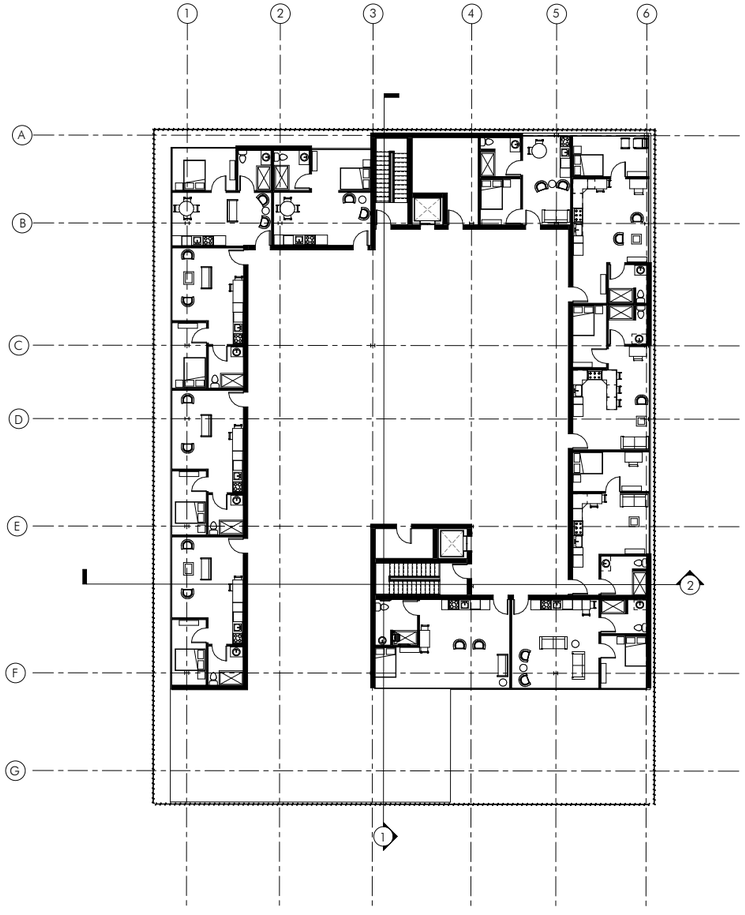
level one



level two



level three

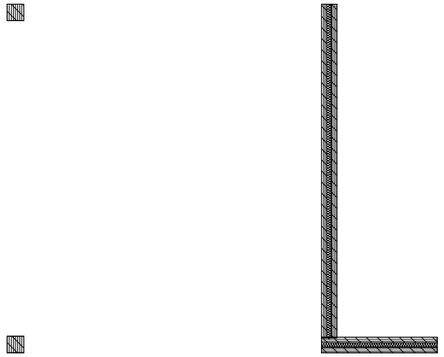


longitudinal section

0 5 10 20 ft

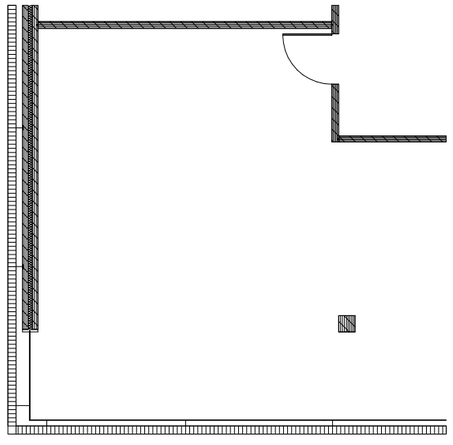
LEVEL 1 PLAN

0 1 5 10



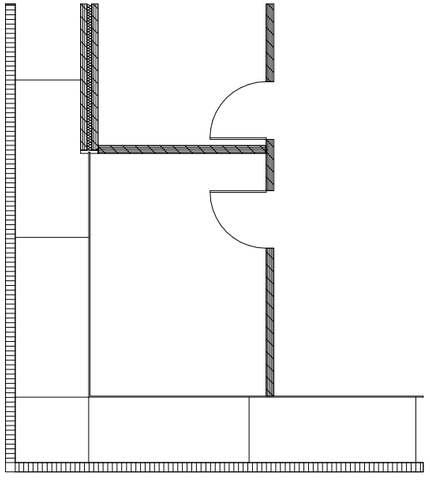
LEVEL 2 PLAN

0 1 5 10

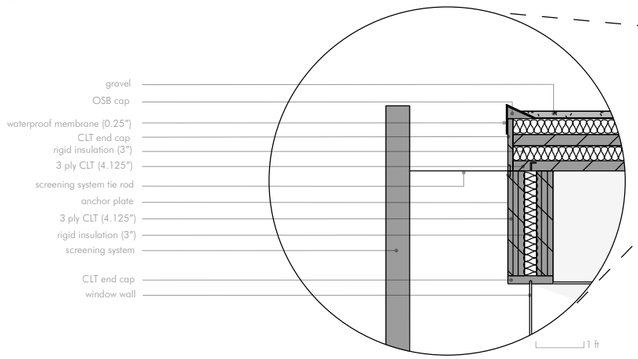


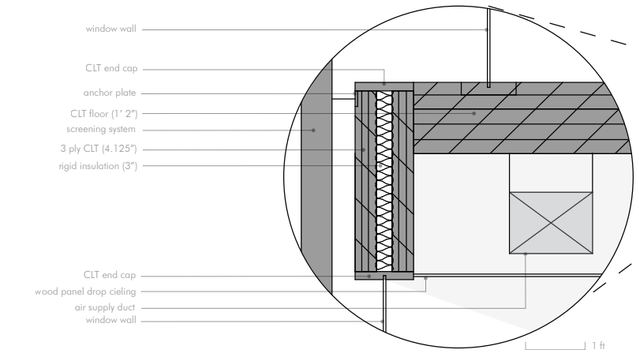
LEVEL 3 PLAN

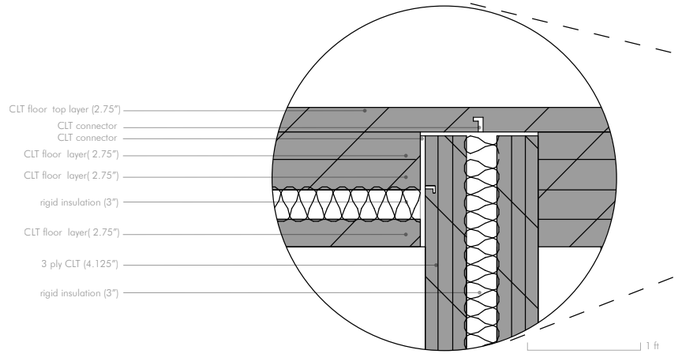
0 1 5 10

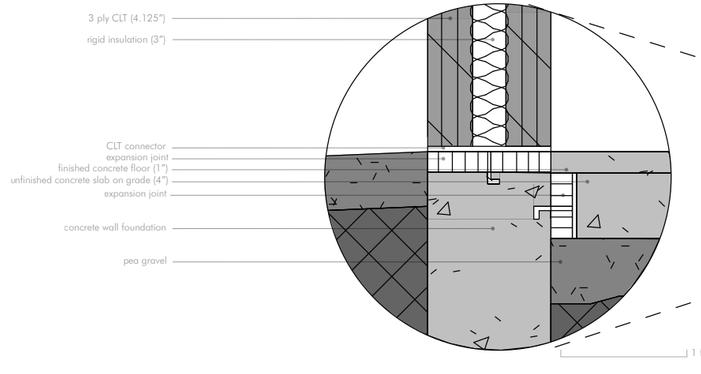


DETAIL

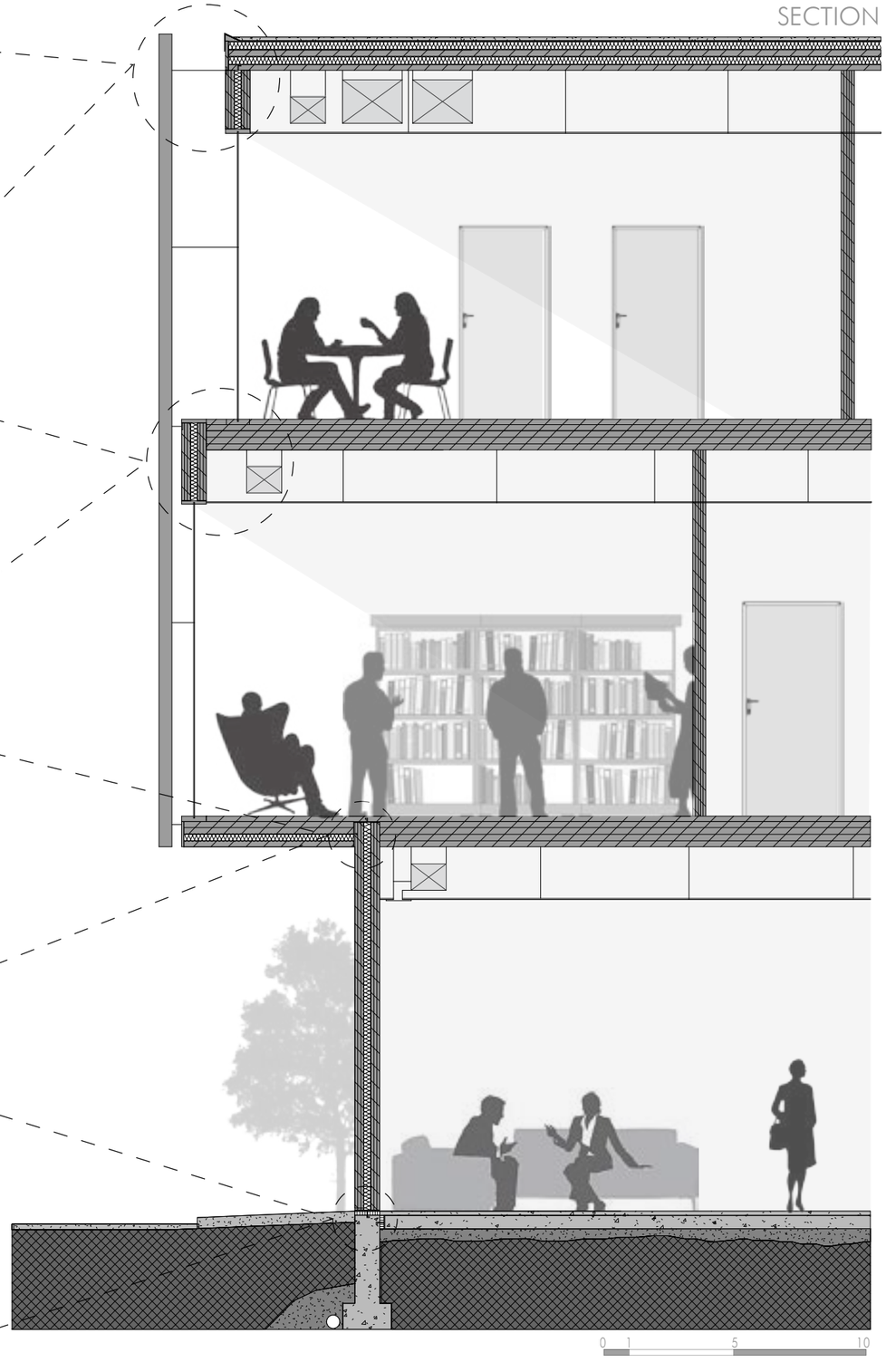








SECTION



corner section detail model

This section slices through the corner of the Transit Nest facing Vermont Street and the adjacent building. By doing so, the detail of the building can be best shown. The Transit Nest is constructed of cross-laminated timber (CLT). It has a gravel roof and a concrete spread footing foundation. The materiality, scale, and assembly of the building is displayed in the basswood section model.

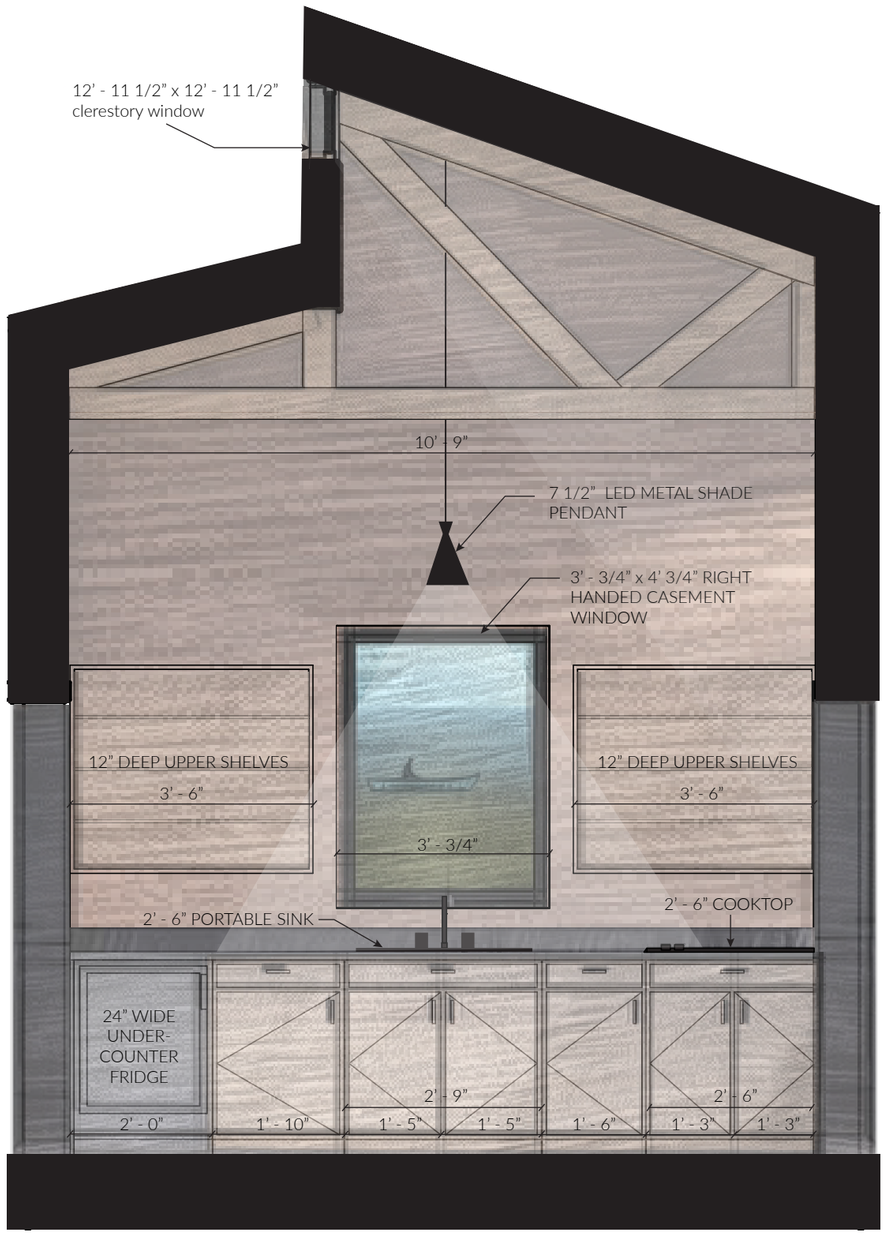
0 4
kaw river hut

University of Kansas
Professor David Sain
Spring 2022

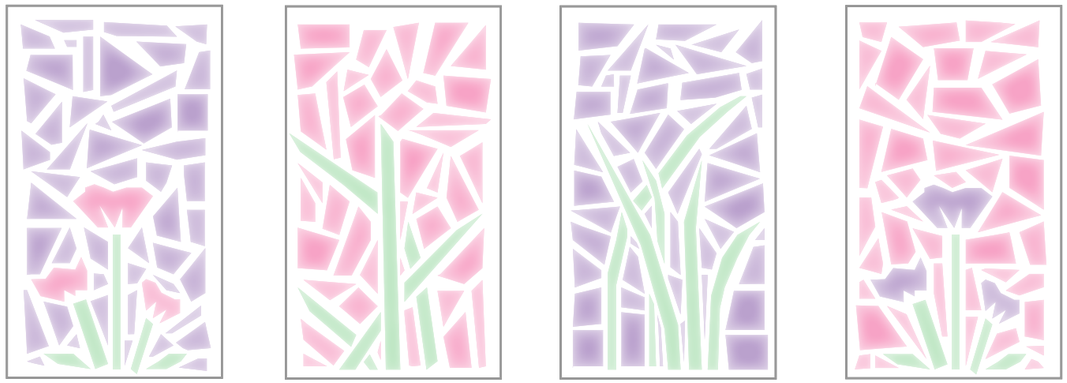
The Friends of the Kaw - a conservation group dedicated to preserving the Kansas River - received a donation of fourteen acres of land along their beloved river and surrounding area. The area is serene and only accessibly by the river. The group would like to sensitively develop the area into a river resource space and a primitive campsite, including accommodations for an artist-in-residence.

This hut on the bank of the Kansas River is designed to house artists-in-residence as they document the river and its surrounding area. The requirements for the primitive hut include: a maximum floor area of 160 sq. ft. and the ability for all materials able to be transported to the site via john boat.

This fast-paced project, designed collaboratively with a group of four peers, was completed in a building technology class. The hut is minimalistic, yet efficient. It gracefully responds to the challenges posed by its unique site.

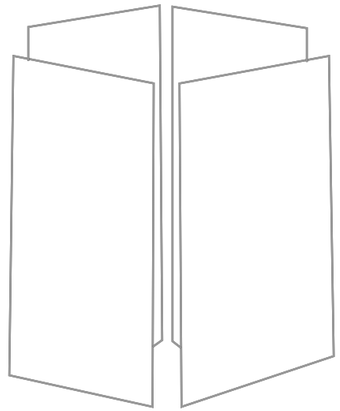


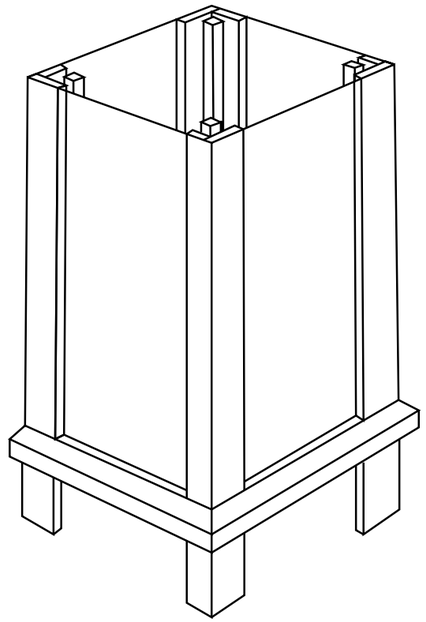
interior elevation facing east



05
luminance

Personal Project
Summer 2020

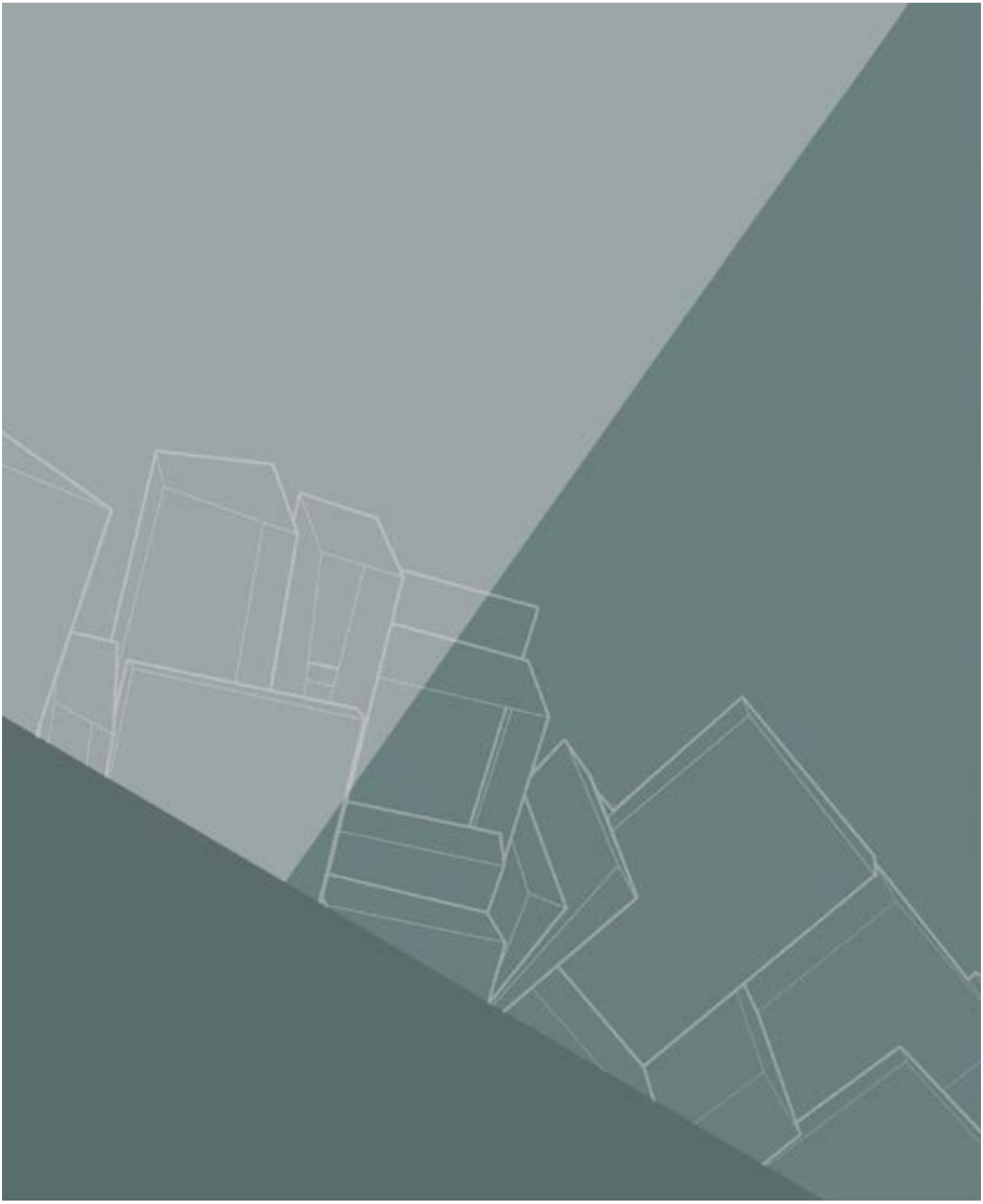




This Japanese-style luminaire was created with the intent of shaping shadow.
The wood frame mimics traditional Japanese lanterns. The simple and delicate structure gives a graceful feel and allows full emphasis to be placed on the light screens.

The removable and customizable screens each have differently colored patterns inspired by nature. When lit from within, the screens project colorful light patterns onto nearby surfaces.

Currently, the luminaire is lit by a bottom-mounted light bulb. The shadow effects could be customized even more by moving the light bulb to the top of the luminaire and having it project down, or simply by placing the luminaire in different areas and allowing it to cast onto different surfaces.



thank you.