



ARC 563 COURSE SYLLABUS

PUBLIC INTEREST DESIGN SEMINAR: Case Studies and Current Issues

Instructors:

Bryan Bell

Contact: bbell@ncsu.edu, 919-637-2804

Office: Brooks 305C

Office Hours: TBD

Katie Wakeford

Contact: ktwakeford@gmail.com

3 Credit Hours

Course Description:

This course evaluates and appraises design in the public interest as a critical and growing element of design disciplines. We explore how design can positively contribute to the social, economic, and environmental well-being of US and global communities. We study current innovations and review successful examples of projects and practice. In addition to lectures by the professor, presentations are made by professionals and experts in public interest design. Field trips to relevant project(s) may be included.

Student Learning Outcomes:

Participants should leave this class with an ability to:

1. Summarize key events and issues in the recent historic context of public interest design.
2. Describe why and how design in the public interest design is a growing element of the design disciplines.
3. Cite examples of best practices in public interest design.
4. Evaluate the strengths and weaknesses of a project based upon the goals of public interest design.
5. Explain the opportunities and challenges of public interest design practices.

Course Structure:

Readings: Specific readings are assigned and a written summary/critique is due at the beginning of the class period, prior to discussion. Students take turns in preparing questions and leading the discussion. Students engage in additional specific readings as needed for their case studies.

Case Study: During the semester students each select and study two projects that demonstrate successful design in the public interest and document them in a research paper and presentation. Projects are presented in class and submitted via Moodle.

Documentation: Reading reports and homework assignments are submitted via Moodle before the start of class on the day they are due.

Course Policies:

The use of computers and communication devices in classroom is strictly not allowed during except for the expressed use of the course.

Instructor(s):

Associate Professor Bryan Bell and Assistant Professor of Practice Katie Wakeford
Brooks 301B
(919) 637-2804
bbell@ncsu.edu
Office hours: Wed, 9:30 to 10:30 and by appointment

Class Meetings:

Time: Tuesdays, 9:35 am to 12:20 pm
Location: Digitally by Zoom only

Readings:

All reading will be available through digital reserves <https://reserves.lib.ncsu.edu/> or through class Google Folder. Required readings in this course have been selected for their usefulness in this course and as a future reference. Purchasing these texts is not required.

1. *Good Deeds Good Design: Community Service through Architecture* (Bell, Princeton Architectural Press) Available at Amazon.com, Princeton Architectural Press, or <http://site.ebrary.com/lib/papress--pub/docDetail.action?docID=10182747>.
2. *Expanding Architecture: Design as Activism* (Bell and Wakeford, Metropolis Books). Available on the class Google Drive.
3. *Public Interest Design Practice Guidebook: Seed Methodology, Case Studies, and Critical Issues*; Co-Editor, Routledge Press, 2015. \$74.95
4. *Wisdom from the Field: Public Interest Architecture in Practice* (AIA, Feldman, Palleroni, Perkes and Bell) available for free at <http://www.publicinterestdesign.com/wp-content/uploads/2013/07/Wisdom-from-the-Field.pdf>. Additional articles will be assigned and provided during course as needed.
5. *All-Inclusive Engagement in Architecture: Towards the Future of Social Change*. Farhana Ferdous and Bryan Bell, ORO Press, 2021

Further Suggested Readings:

A bibliography of related readings is available in Appendix of *Public Interest Design Practice Guidebook*.

Course Materials: Presentation materials will be digital and printing is not required.

Restrictive Statement: The class is open to Architecture Graduate Students in the College of Design. By permission of Instructor the class is open to other NCSU CoD Graduate Students, Fifth Year Architecture Students, Senior/Advanced Undergraduates, as well as non-CoD Students.

Prerequisites or Corequisites: None

Statement of Enrollment Restrictions: By permission of Instructor, class is open to Graduate Students in College of Design, Fifth Year Architecture Students, Senior/Advanced Undergraduates, or non-CoD students.

General Education Program (GEP) Information: This class does not fulfill and General Education Program category.

Transportation: Students will be required to provide their own transportation for this class.

Safety and Risk Assumptions: None

Grading:

Written Reading Responses	25% total, divided equally between 10 assignments
Participation (see Attendance and Participation in Expectations below)	25% total, 10% for class leader and 15% divided evenly between ten reading discussion sessions
Case Studies	50% total
Case Study Proposal: research paper and presentation	5%
Case Study Mid-review: research paper and presentation	10%
Case Study Final Review: research paper and presentation	12.5%

- A Excellent: Performance is in all or most aspects superior to what can be typically expected on this level. Products are exceptional in conception, development, and execution.
- B Good: Performance is typical for this level. No major problems with effort, productivity, attitude, participation, skills, and overall quality of design projects.
- C Fair: Performance falls somewhat short of expectations in some respects, in spite of effort; some problems with either productivity or skills or overall quality of projects.
- D Poor: Performance falls seriously short in several aspects, including attitude and effort.
- F Unacceptable: poor participation, poor attitude, poor effort, poor skills, poor products.

Plus/Minus Grading will be used. It will be reflected in the calculation of your GPA as 1/3 of a grade point, e.g.: A- is 3.667, B+ is 3.333, etc.

Grades will be posted on the class Moodle page. Assignments must be submitted through Moodle at the beginning of the class when due.

Note that active class participation is part of your grade – see “Expectations” sections of this syllabus and “Rubrics” provided through the class Google Drive folder.

Expectations:

All assignments are due at the beginning of the class session on the day given in each assignment. Failure to turn in work on time will result in a grade of zero. NO extensions will be given unless agreed to by Instructor in advance of assignment’s due date and time.

A course portfolio (digital) documenting all work completed during the semester is due at the beginning of the final class meeting.

Participation in class discussion is a key learning method of the class. Every student is expected to contribute in each class, including sharing ideas and opinions from readings, presentations. A portion of your final course grade is dedicated to participation in the class sessions. We request that all cameras are on during Zoom sessions to advance mutual engagement. If you do not wish to have cameras on for a session, please communicate in advance with the instructors.

Attendance:

All classes will be held remotely through Zoom. Students are expected to attend class every scheduled session, where attendance will be taken. The course will comply with University Attendance Regulations for excused absences: <https://policies.ncsu.edu/regulation/reg-02-20-03>. Failure to attend 2 of these sessions due to unexcused absence will result in a lowering of your grade by one letter. Failure to attend 3 of the sessions for an unexcused

absence will result in a lowering of the grade by two letters. Failure to attend 4 or more of the sessions due to unexcused absence will result in a failing grade.

NCSU Policies:

This course adheres to all academic and conduct policies established by NC State University, the College of Design and the School of Architecture. Refer to the Code of Student Conduct: <http://policies.ncsu.edu/policy/pol-11-35-01> "Students are responsible for reviewing the PRRs which pertain to their course rights and responsibilities. These include: <http://policies.ncsu.edu/policy/pol-04-25-05> (Equal Opportunity and Non-Discrimination Policy Statement), <http://oied.ncsu.edu/oied/policies.php> (Office for Institutional Equity and Diversity), <http://policies.ncsu.edu/policy/pol-11-35-01> (Code of Student Conduct), and <http://policies.ncsu.edu/regulation/reg-02-50-03> (Grades and Grade Point Average)."

Auditing Policy:

Information about and requirements for auditing a course can be found at <http://policies.ncsu.edu/regulation/reg-02-20-04>

Non-Discrimination Policy:

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or http://www.ncsu.edu/equal_op/. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Americans with Disabilities Act (ADA) Policy Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.1) Information can be found at http://www2.ncsu.edu/ncsu/stud_affairs/counseling_center/dss/.

Academic Integrity Statement

Strict standards of academic honesty will be enforced according to the University policy on academic integrity. Any material from a previous or other course that is re-used or expanded in this class must be identified to the instructor. It is expected that a student's signature on any test or assignment means that you have neither given nor received unauthorized aid. Consult the following website for further details: <http://policies.ncsu.edu/policy/pol-11-35-01>.

Course Schedule: Three Hour Seminar/Week, 9:35 to 12:20, Tuesday

Weekly Session Topics:

- 1 Course Intro, Presentation of Case Study Project
- 2 Expanding Architecture: The Call for Change

3	What is a Design Issue? The Triple Bottom Line
4	Designing for Social Change: Model Projects and Best Practices; Case Study Project Selections Due, Review in Class
5	SEED: A Network, An Evaluation Tool, An Ethic
6	Models of Practice: Nonprofit, For Profit, Pro Bono
7	The Role of Designers: Pre-Form, Form, and Post-Form
8	Design Processes: Asset-Based, Participatory, Design Guidelines AND Affordable Housing and the Role of Architects
9	Mid Review of Case Studies (Paper drafts due.)
10	Public Interest Designer as Developer
11	Strategies for Starting and Funding Projects
12	Public-Interest Internships and Career Paths
13	Final Review of Case Studies (Part 1), Final papers due.
14	Final Review of Case Studies (Part 2), Conclusions, Course Documentation due.

Diversity, Equity and Inclusion Statement:

Architecture is made to serve people and as a part of the global community we recognize diversity within our school as well as the self-expression of our students. The School of Architecture values how diversity cultivates a rich learning environment. It is a fundamental principle that each individual has the right to learn without fear of character deprecation or retribution for personal opinions. Students and professors must expect and help foster a learning environment of trust and respect. An individual must never suffer in the learning environments because of race, religion, gender, sexual orientation, ethnicity or national origin. The School of Architecture seeks to build a positive and encouraging community that promotes diversity, equity, inclusion, and justice.

Mental Health Services: Your health is of utmost importance. Please become familiar with the resources available from the University on this site and speak with me about any needs you may have: <https://prevention.dasa.ncsu.edu/>.

Critical Security Incident: Your safety is also of utmost importance. Please know that an after-dark ride home is always available to you through the campus police at 919-515-3000. Please review the “critical incident video and training on this link: <https://police.ehps.ncsu.edu/support-services/training-2/active-shooter-survival-training/>.

Health of Students

The mental health, physical health, well-being and the positive learning experience of students are all top priorities for the course. Due to the Coronavirus pandemic, public health measures have been implemented across campus. Students should stay current with these practices and expectations through the [Protect the Pack](https://www.ncsu.edu/coronavirus/) website (<https://www.ncsu.edu/coronavirus/>). The sections below provide expectations and conduct related to COVID-19 issues.

Health and Participation in Class

We are most concerned about your health and the health of your classmates.

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, please work with the instructors on health accommodations and follow other university guidelines, including self-reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to class.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to discuss the situation and make alternative plans, as necessary.

- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor for the appropriate process to make a COVID-19 request. If you need assistance in requesting special consideration for remote learning, you can fill out this [form](#). It is not required if you are able to work out a situation with your professor, but it provides you with an opportunity to work with an independent unit to get consideration, should you need or want it.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to [take care of themselves](#) and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center ([NCSU Counseling Center](#))
- Health Center ([Health Services | Student](#))
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: ([Share a Concern](#)).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program ([Pack Essentials](#)).

Community Standards related to COVID-19

We are all responsible for protecting ourselves and our community. Please see the [community expectations](#) and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 [RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules](#)

Course Expectations Related to COVID-19:

- **Face Coverings:** All members of the NC State academic community are required to follow all university guidelines for personal safety with face coverings, physical distancing, and sanitation. Face coverings are required in class and in all NC State buildings. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides. In addition, students are responsible for keeping their course/work area clean. Please follow the cleaning guidelines described by the university.
- **Course Attendance:** NC State attendance policies can be found at: [REG 02.20.03 – Attendance Regulations – Policies, Regulations & Rules](#). Please refer to the course's attendance, absence, and deadline policies for additional details. If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.
- **Course Meeting Schedule:** Your course might not have a traditional meeting schedule in Fall 2020. Be sure to pay attention to any updates to the course schedule as the information in this syllabus may have changed. Please discuss any questions you have with the instructor.
- **Classroom Seating:** To support efficient, effective contact tracing, please sit in the same seat when possible and take note of who is sitting around you; instructors may also assign seats for this purpose.
- **Technology Requirements:** This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).
- Additional items you may consider adding a few items to your toolkit: a lightweight folding chair, a hat, insect repellent, and sunscreen. Meeting and working outside may be more common this semester.

Course Delivery Changes Related to COVID-19

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course may need to change accordingly, including from in-person to online. Regardless of the delivery method, we will strive to provide a high-quality learning experience. The course schedule, as well as specific assignments, are subject to change and require corresponding student flexibility. This flexibility also pertains to the impact and changes due to COVID-19. Students will be notified of any changes by email and through Moodle announcements, and are responsible for monitoring their digital correspondence.

Grading/Scheduling Changing Options Related to COVID-19

If the delivery mode has a negative impact on your academic performance in this course, the university has provided tools to potentially reduce the impact:

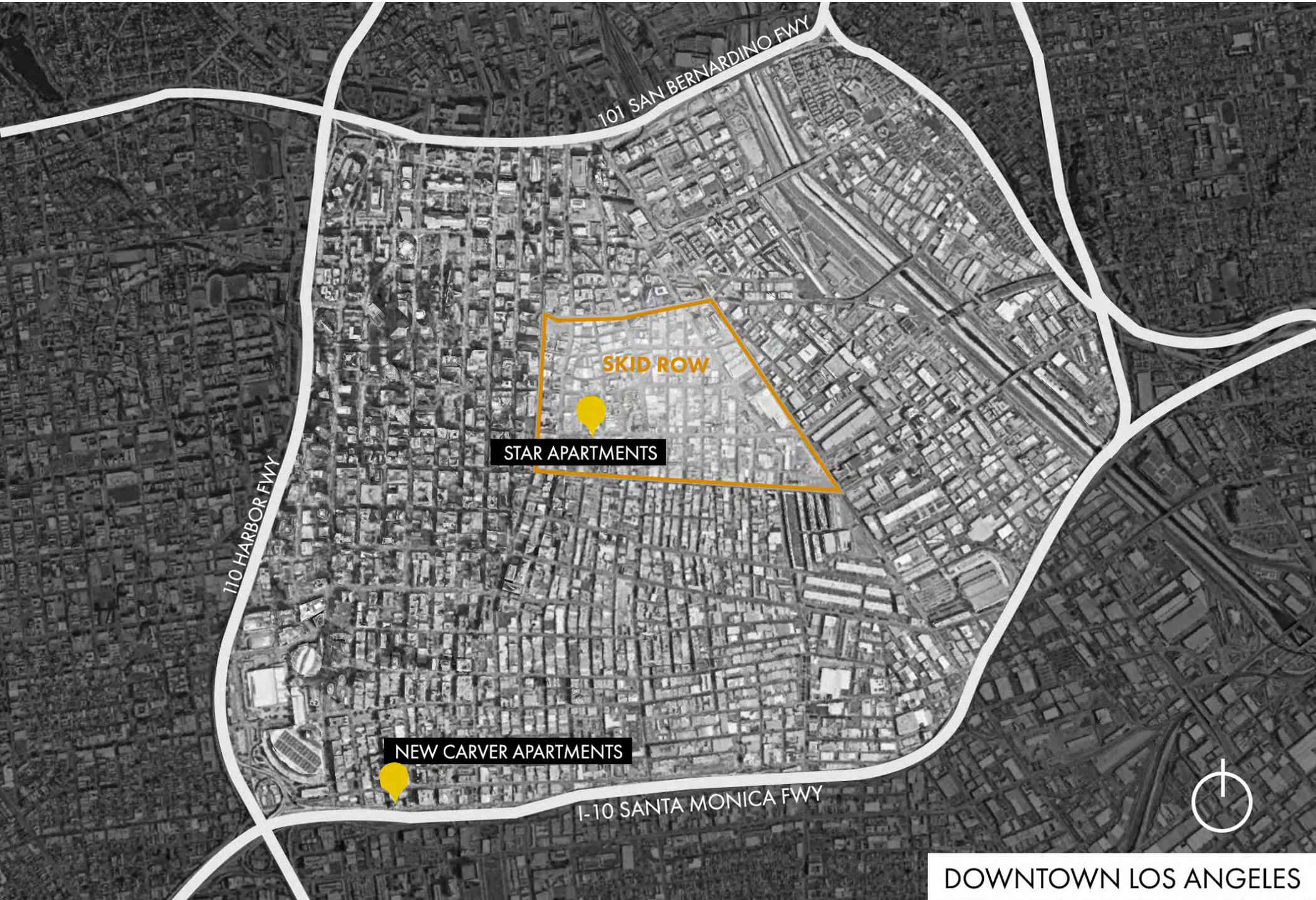
- **Enhanced S/U Grading Option:** [Enhanced Satisfactory/ Unsatisfactory Grading Option](#)
- **Late Drop:** [Enhanced Late Drop Option](#)

In some cases, another option may be to request an incomplete in the course. Before using any of these tools, discuss the options with your instructor and your academic advisor. Be aware that if you use the enhanced S/U, you will still need to complete the course and receive at least a C- to pass the course.

Other Important Resources

- **Keep Learning:** [Keep Learning](#)
- **Protect the Pack FAQs:** [Frequently Asked Questions | Protect the Pack](#)
- **NC State Protect the Pack Resources for Students:** [Resources for Students | Protect the Pack](#)
- **NC State Keep Learning, tips for students opting to take courses remotely:**
[Keep Learning Tips for Remote Learning](#)
- **Introduction to Zoom for students:**
<https://youtu.be/5LbPzzPbYEw>
- **Learning with Moodle, a student's guide to using Moodle:**
<https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226>
- **NC State Libraries** [Technology Lending Program](#)

Michael Maltzan
Skid Row Housing Trust
Los Angeles, California



DOWNTOWN LOS ANGELES

SKID ROW HOUSING TRUST

SERVICES

- Individual and group counseling
- Educational and peer support groups
- Health screenings, assessment, and education
- Chronic disease detection and management
- Assistance in obtaining disability, Social Security, and other government entitlements
- Recovery support, including substance abuse counseling and treatment
- Connection with resources for money management, job training and education programs
- Linkages to psychiatry and medication management
- Linkages to primary physical and mental health care

<https://skidrow.org/work/services/current-programs-services/>

SERVICE PARTNERS

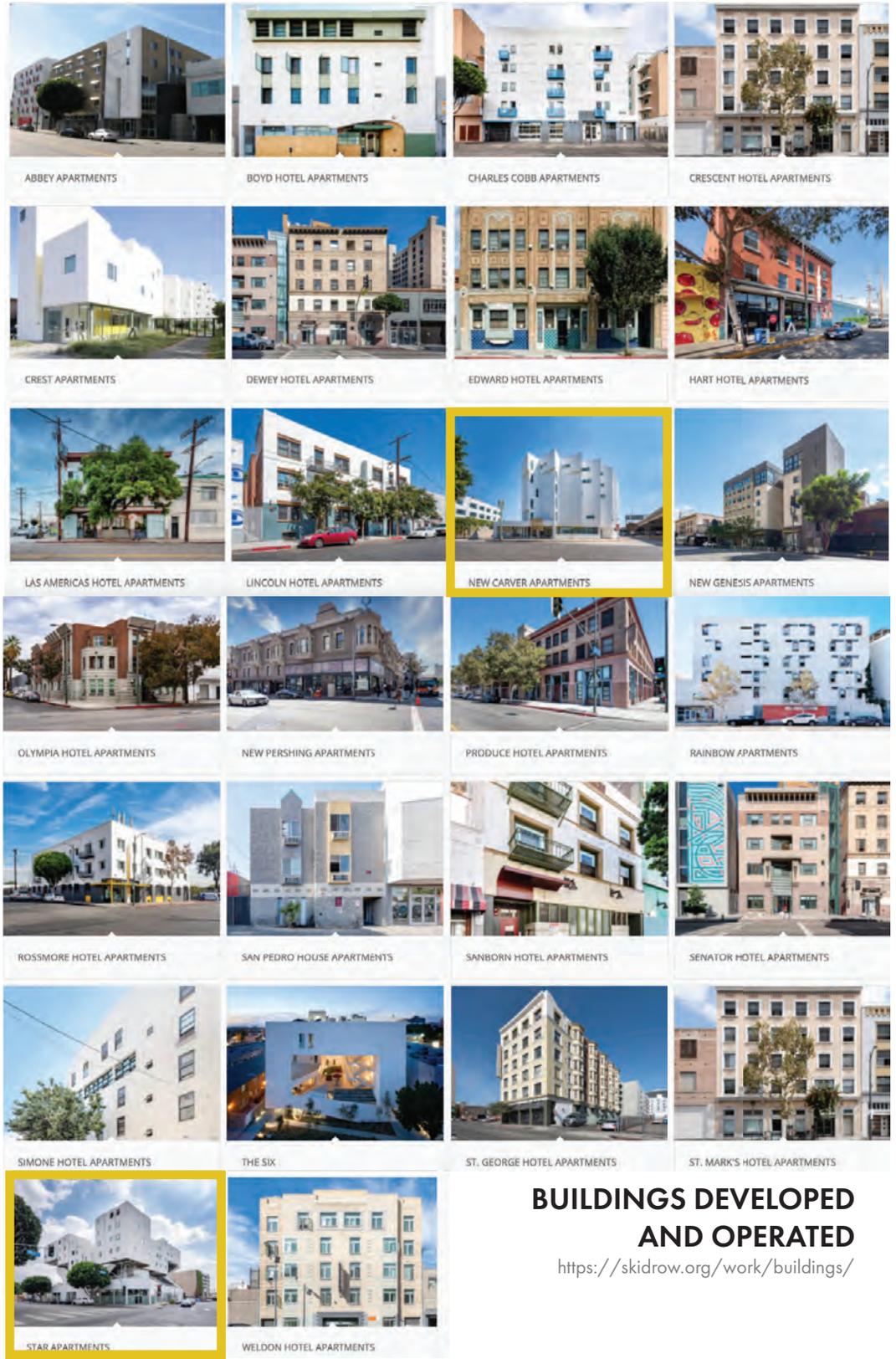
- Behavioral Health Services
- Chrysalis
- Common Ground Community
- Corporation for Supportive Housing
- Didi Hirsch Community Mental Health Center
- Exodus Recovery
- Homeless Healthcare Los Angeles
- Housing Authority of the City of Los Angeles
- JWCH Institute, Inc.
- L.A. Kitchen
- LAMP Community
- Los Angeles County Department of Health Services
- Los Angeles County Department of Public Health
- Los Angeles County Department of Public Social Services
- Los Angeles Homeless Services Authority
- Piece by Piece
- U.S. Department of Veterans Affairs of Greater Los Angeles

ARCHITECTS

- Barron Fitzgerald Architects
- Brooks + Scarpa
- Cavaedium
- Dvoretzky Bardovi Bunnell
- Kaplan Chen Kaplan
- Killefer Flamang Architects
- Kivotos Montenegro Partner, Inc.
- Koning Eizenberg Architecture
- Abode Communities – Architecture
- Michael Maltzan Architecture
- Perkins+Will Architecture
- Richard Barron Architects

COMMUNITY PARTNERS

- 2010 Office Furniture
- Boomtown
- Brand Name Studio
- Cafe Gratitude
- Chicas Tacos
- David Flores Art
- Gensler
- Giving Keys
- Glasswing Floral
- Hanson LA
- Make It Happen Music
- office42 architecture
- The Pie Hole
- The Regent
- Skid Row Denim & Apparel
- Skingraft
- SPROUT LA
- The Standard
- Suffolk
- SWAG PROMO
- Tito's Handmade Vodka
- The Wheelhouse



BUILDINGS DEVELOPED AND OPERATED

<https://skidrow.org/work/buildings/>



Source: https://www.architectmagazine.com/design/buildings/new-carver-apartments_o

Project: New Carver Apartments (2006)
Client: Skid Row Housing Trust
Architect: Michael Maltzan Architecture

Mechanical /Electrical: IBE Consulting Engineers
Structural: B.W. Smith Structural Engineers
Civil: Paller Roberts Engineers
Geotechnical: Geocon
Construction Manager: Dreyfuss Construction
General Contractor: Westport Construction
Acoustical: Newson Brown Acoustics
Fire & Life Safety: Arup

Materials and Sources:

Structural System: Concrete (ground floor podium)
Wood and Steel (floors 2-6)
Exterior Cladding: Omega Products (plaster)
Dunn Edwards Paints, Arcadia Storefront
Windows: Fleetwood Windows & Doors
Glazing: Old Castle Glass (Triple glazing)
Doors: Fleetwood Windows & Doors (sliding doors)
Cornell Ironworks (coiling doors),
Construction Specialties Group (louvers)
Hardware: Ingersoll Rand Security Technologies
Interior Finishes: Dunn Edwards Paints, Daltile (Floor & wall tile all restrooms),
Johnsonite (Rubber lite resilient flooring)
Lighting: Birchwood Lighting

97 units @ 304 SF
53,000 Gross Square Feet
\$18.4 Million



Source: <https://www.architectmagazine.com/project-gallery/star-apartments-3700>

Project: Star Apartments (2013)
Client: Skid Row Housing Trust
Architect: Michael Maltzan Architecture

Mechanical /Electrical: Green MEP Engineering Consulting
Structural: B.W. Smith Structural Engineers, Nova Structures
Landscape Architect: Valley Crest Design Group
Civil: KPFF Consulting Engineers
Geotechnical: Geocon West, Martin Newsom & Associates
Construction Manager: Dreyfuss Construction
General Contractor: Westport Construction
Interior Designer: Collaborative House
Fire & Life Safety: Arup
Certified Gold as a LEED for Homes Pilot Project

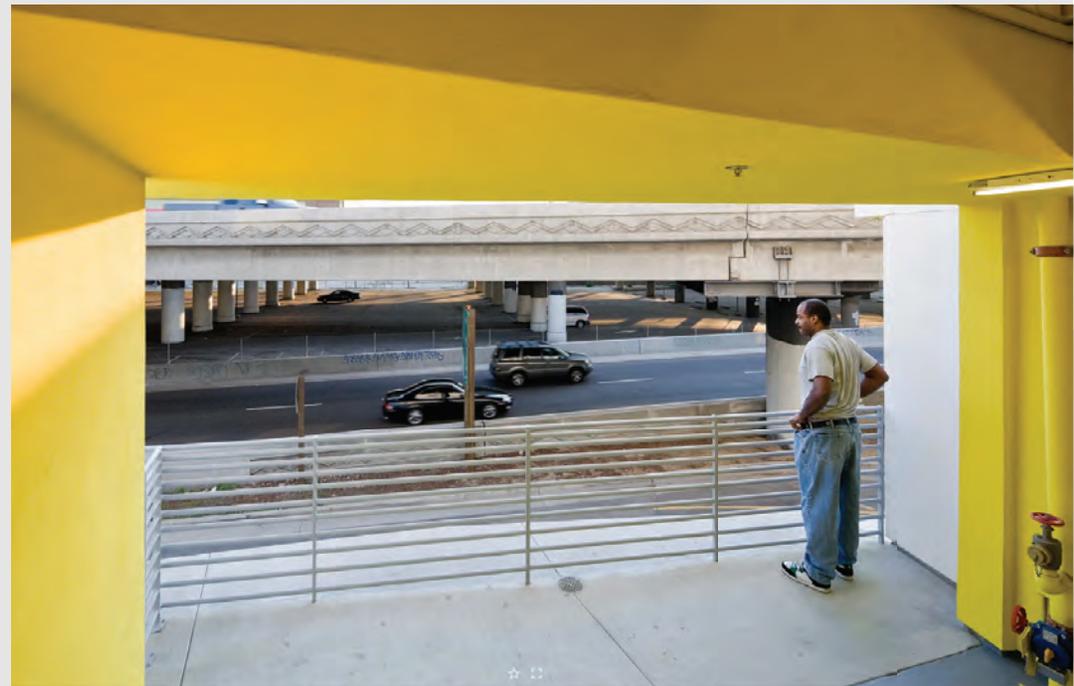
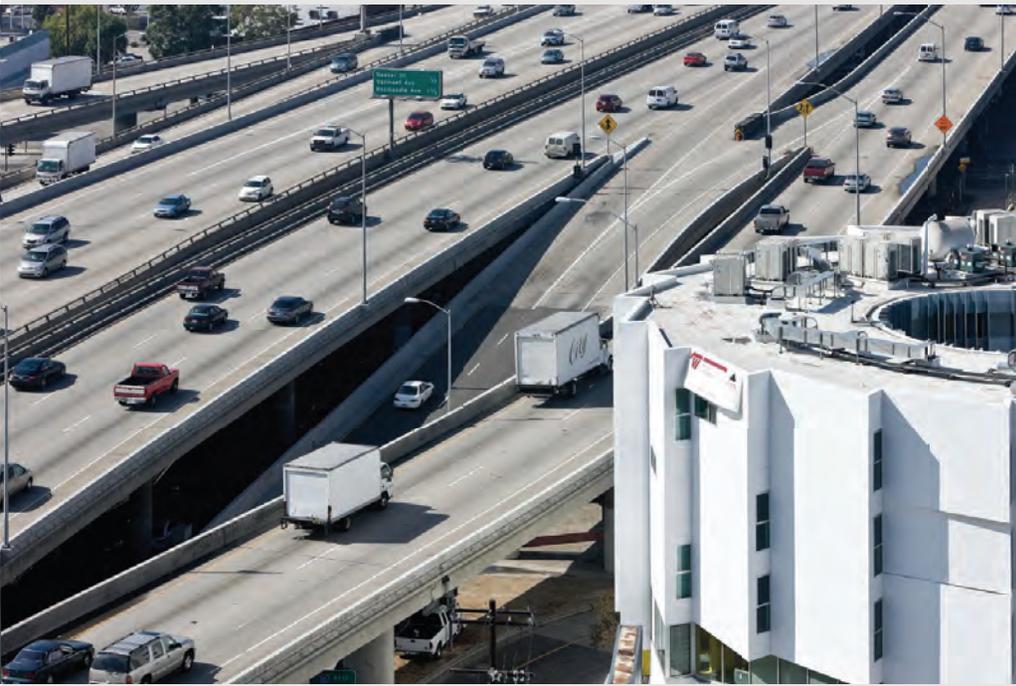
Services and Occupants:

First Floor: The new headquarters of the Los Angeles County Department of Health Services' (DHS) Housing for Health Division and a medical clinic
Second Floor: Health and Wellness Center- common spaces such as a community kitchen, meeting room, art room, and library, as well as recreational spaces such as an exercise room, running/walking track, and a pickle ball court.
2,000 square feet of community edible gardens

102 units @ 350 SF
95,000 Gross Square Feet
\$40 Million



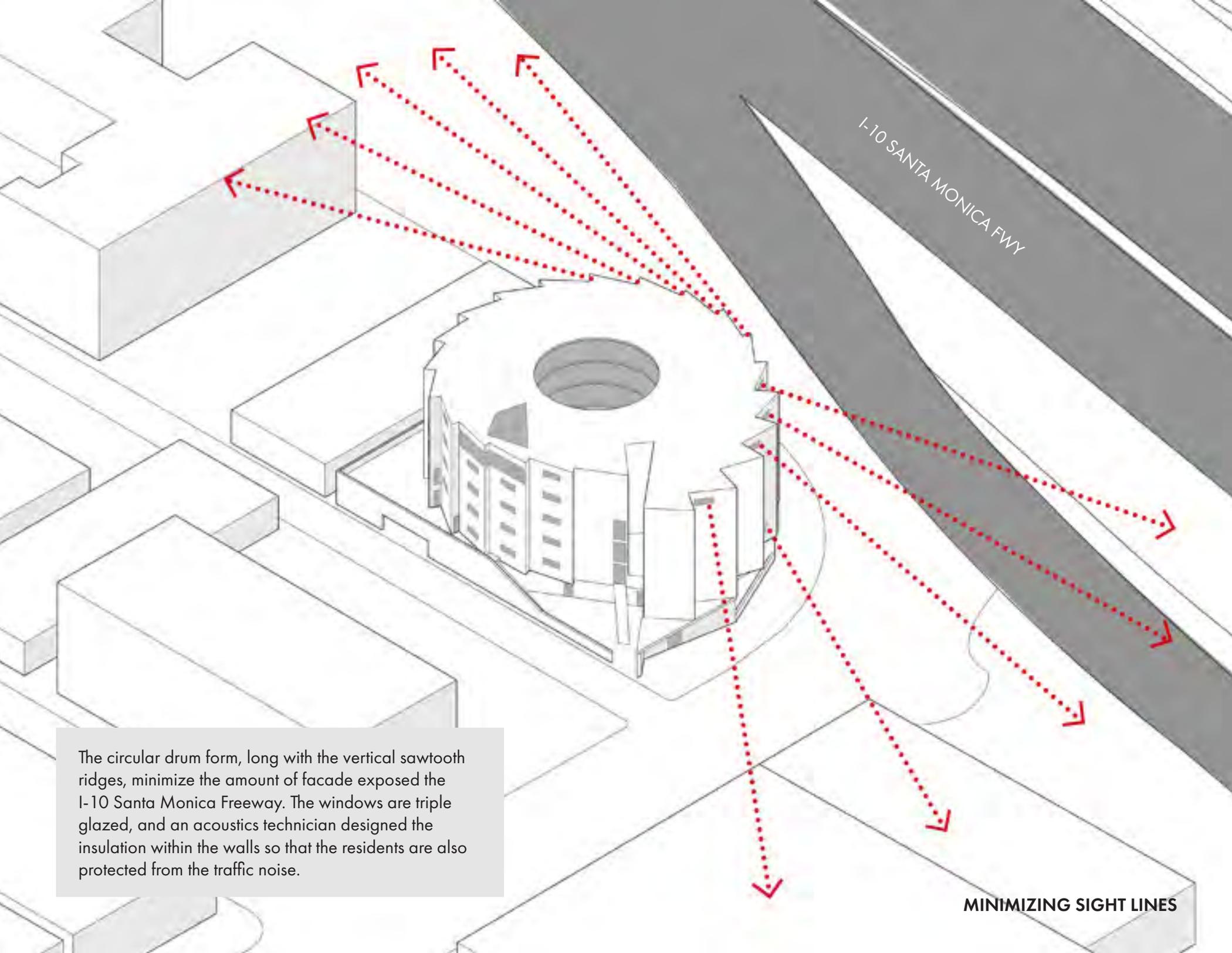
SITE AMENITIES AND SERVICES



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CHALLENGING NORMS & ENCOURAGING DIALOGUE

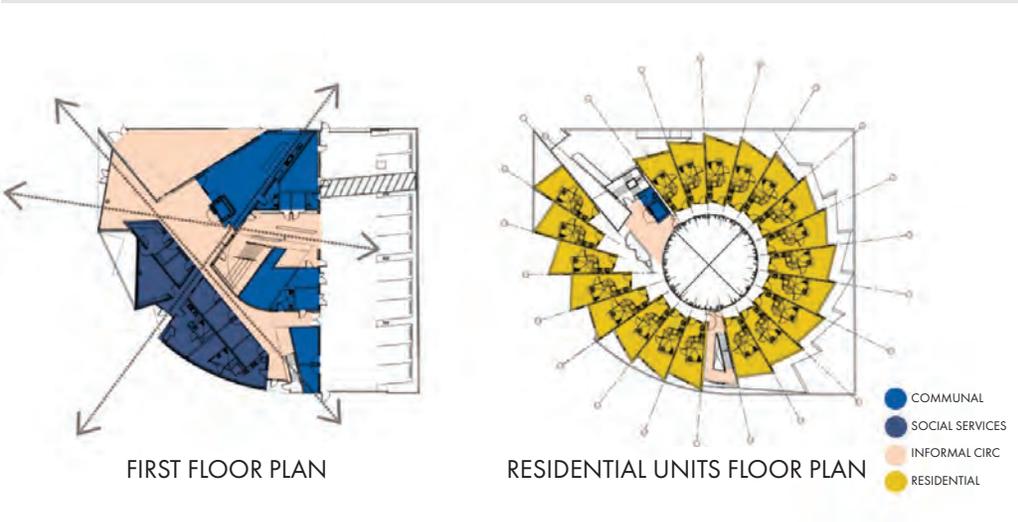




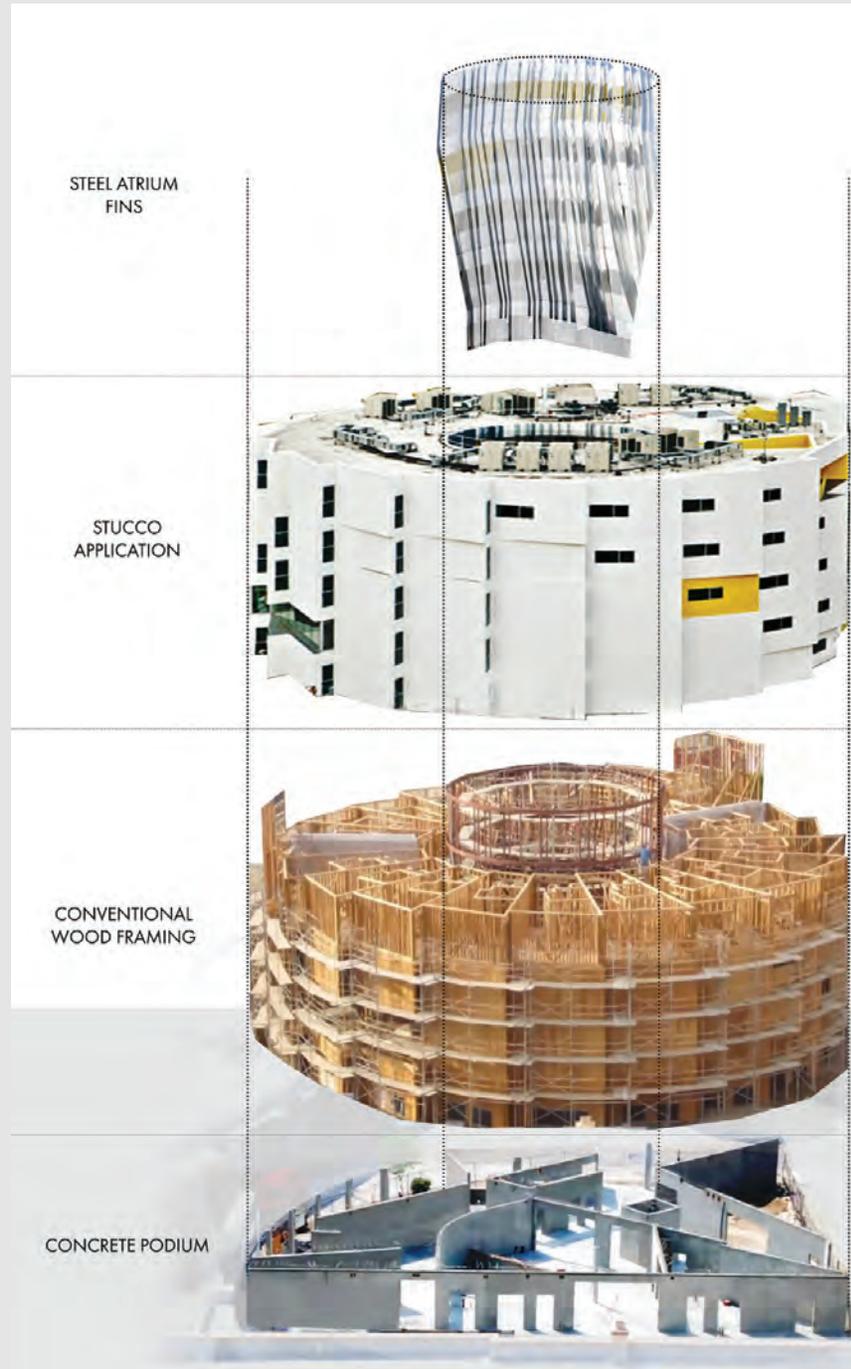
I-10 SANTA MONICA FWY

The circular drum form, long with the vertical sawtooth ridges, minimize the amount of facade exposed the I-10 Santa Monica Freeway. The windows are triple glazed, and an acoustics technician designed the insulation within the walls so that the residents are also protected from the traffic noise.

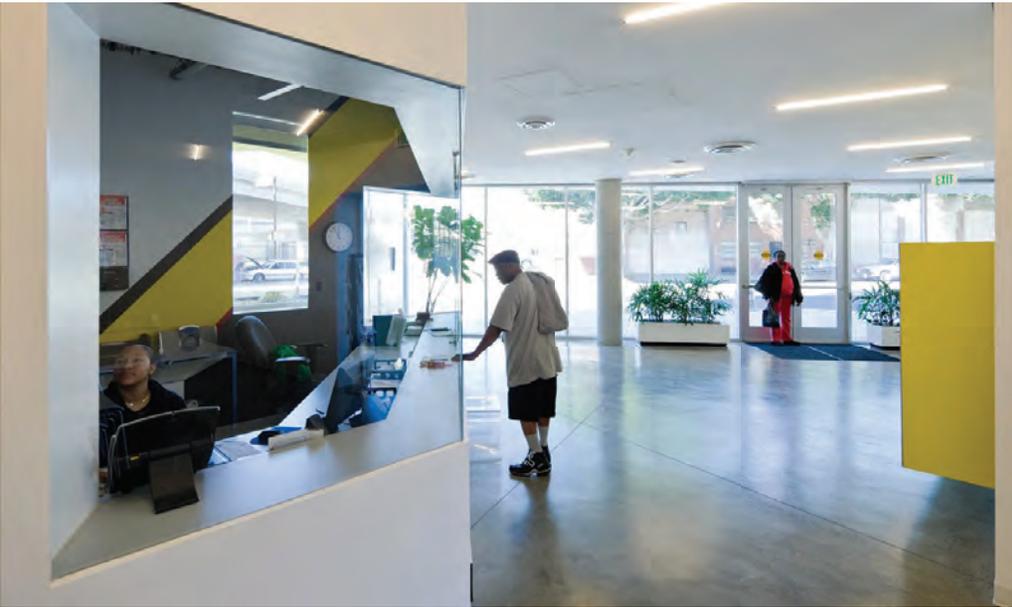
MINIMIZING SIGHT LINES



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STRUCTURAL SYSTEMS

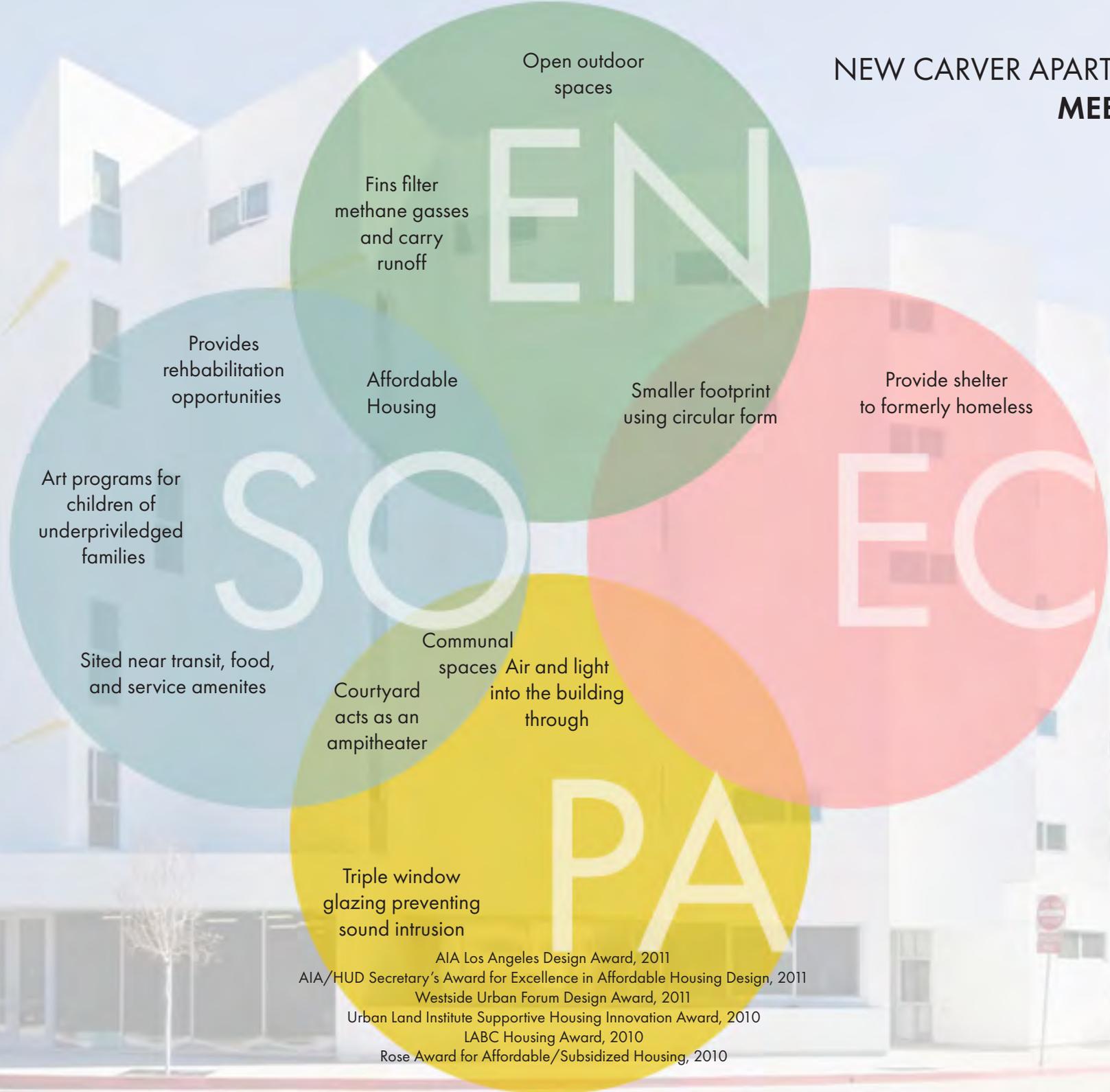


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AIR, LIGHT, OPEN SPACE



NEW CARVER APARTMENTS MEET SEED



AIA Los Angeles Design Award, 2011
AIA/HUD Secretary's Award for Excellence in Affordable Housing Design, 2011
Westside Urban Forum Design Award, 2011
Urban Land Institute Supportive Housing Innovation Award, 2010
LABC Housing Award, 2010
Rose Award for Affordable/Subsidized Housing, 2010



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COMMUNAL SPACES DIRSUPTING STIGMAS

HALF COVERED TERRACE
USED FOR OUTDOOR YOGA



LAUNDRY/ COMMUNAL
"PORCH" AT FREEWAY
LEVEL ENCOURAGING A
CHALLENGING DIALOGUE

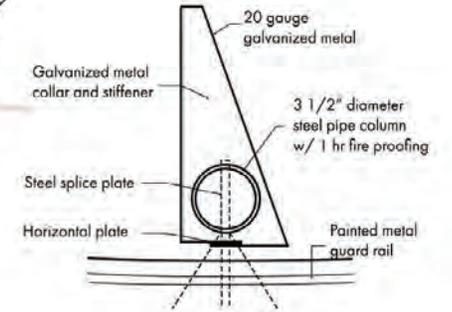
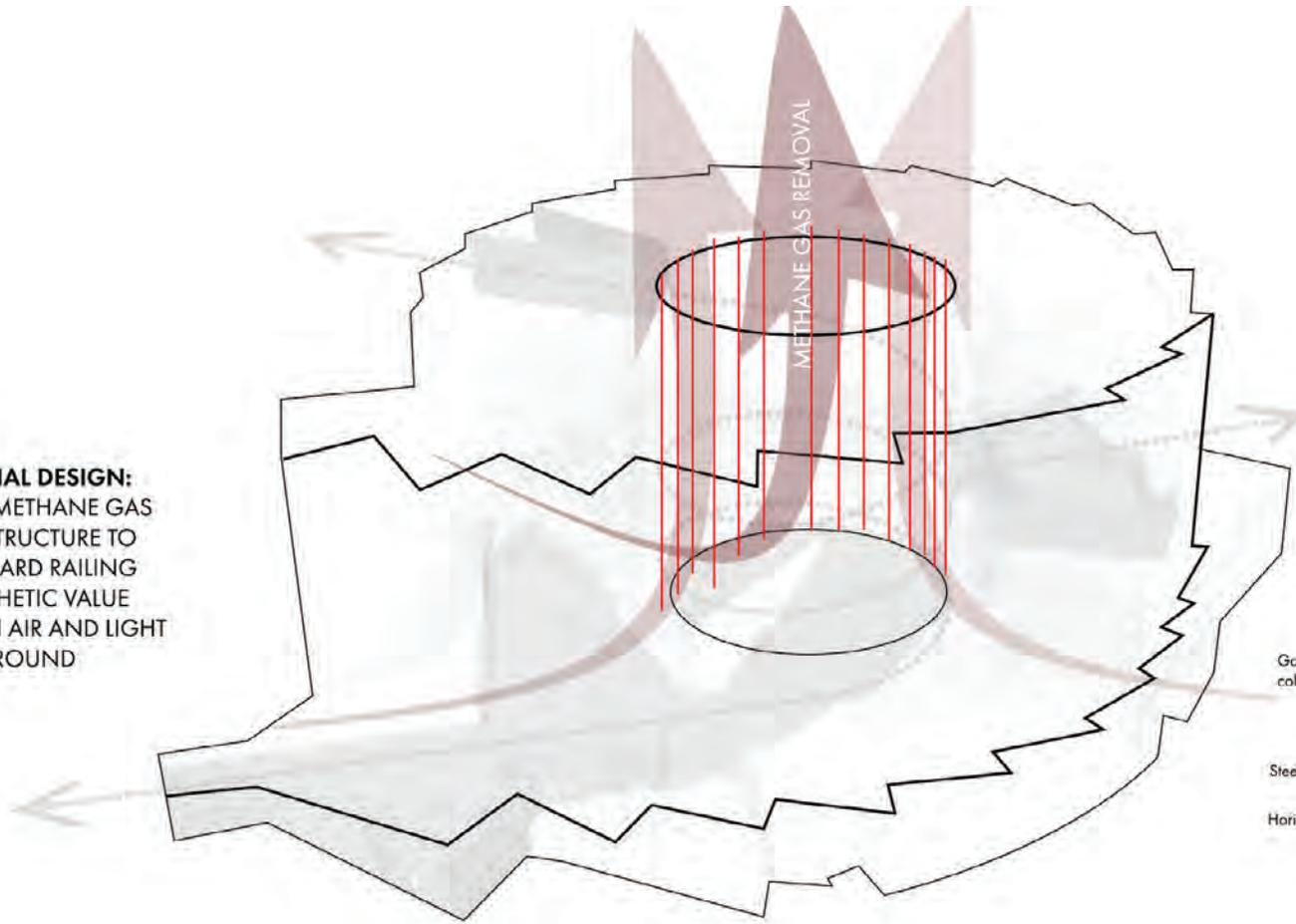
COMMUNAL STAIR USED
AS AMPITHEATER

LARGE OPEN SPACES,
GRACIOUS INFORMAL CIRCULATION
LARGE COMMUNAL KITCHEN,
STAFF AND SOCIAL SERVICE MEETING SPACES

COMMUNAL SPACES



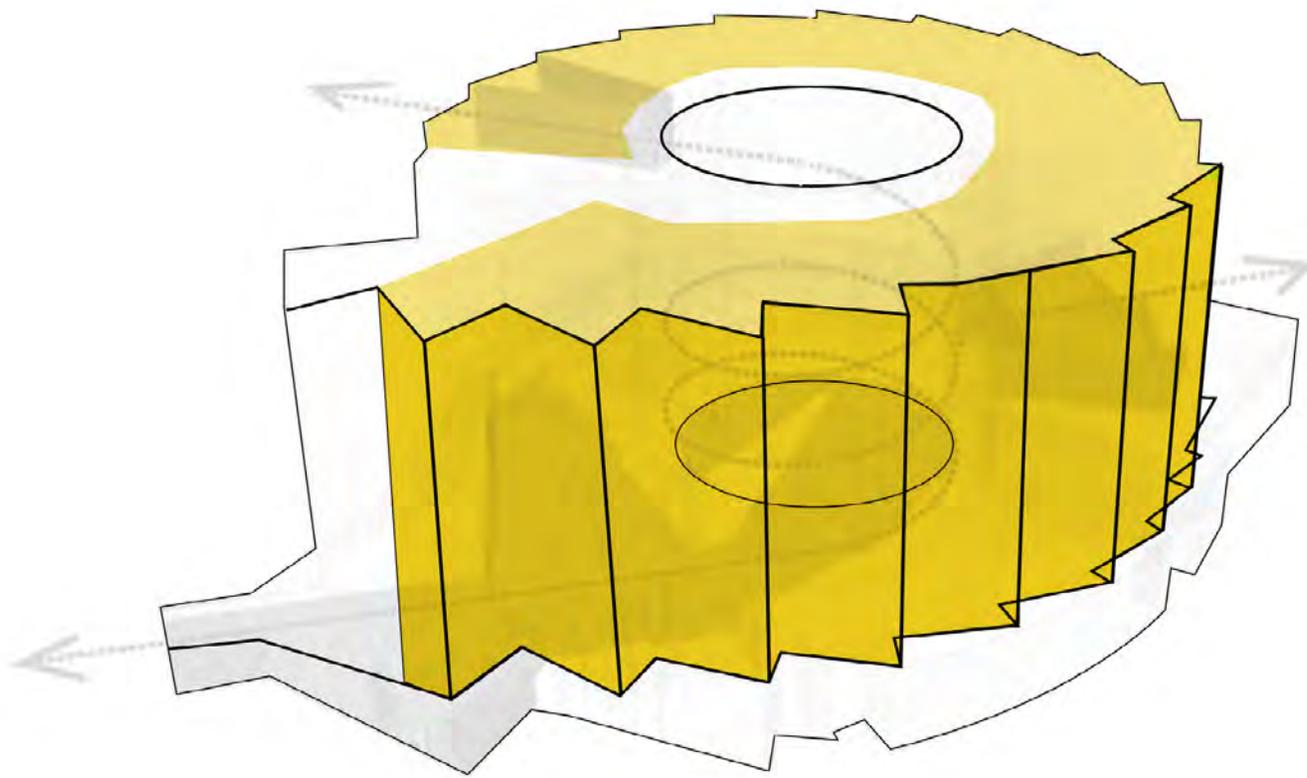
- FUNCTIONAL DESIGN:**
- FINS FILTER METHANE GAS
 - PROVIDE STRUCTURE TO ATRIUM GUARD RAILING
 - ADD AESTHETIC VALUE
 - ALLOW FRESH AIR AND LIGHT TO GROUND



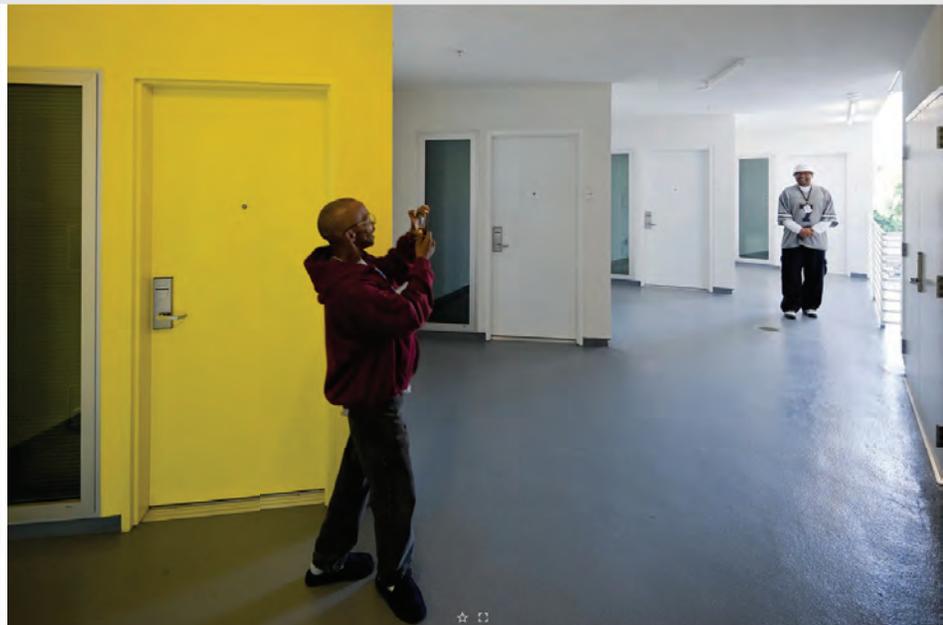
ATRIUM FINS







RESIDENTIAL UNITS



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COMFORTABLE RESIDENTIAL UNITS



Source: https://www.architectmagazine.com/design/buildings/new-carver-apartments_o

Project: New Carver Apartments (2006)
Client: Skid Row Housing Trust
Architect: Michael Maltzan Architecture

Mechanical /Electrical: IBE Consulting Engineers
Structural: B.W. Smith Structural Engineers
Civil: Paller Roberts Engineers
Geotechnical: Geocon
Construction Manager: Dreyfuss Construction
General Contractor: Westport Construction
Acoustical: Newson Brown Acoustics
Fire & Life Safety: Arup

Materials and Sources:

Structural System: Concrete (ground floor podium)
Wood and Steel (floors 2-6)
Exterior Cladding: Omega Products (plaster)
Dunn Edwards Paints, Arcadia Storefront
Windows: Fleetwood Windows & Doors
Glazing: Old Castle Glass (Triple glazing)
Doors: Fleetwood Windows & Doors (sliding doors)
Cornell Ironworks (coiling doors),
Construction Specialties Group (louvers)
Hardware: Ingersoll Rand Security Technologies
Interior Finishes: Dunn Edwards Paints, Daltile (Floor & wall tile all restrooms),
Johnsonite (Rubber lite resilient flooring)
Lighting: Birchwood Lighting

97 units @ 304 SF
53,000 Gross Square Feet
\$18.4 Million



Source: <https://www.architectmagazine.com/project-gallery/star-apartments-3700>

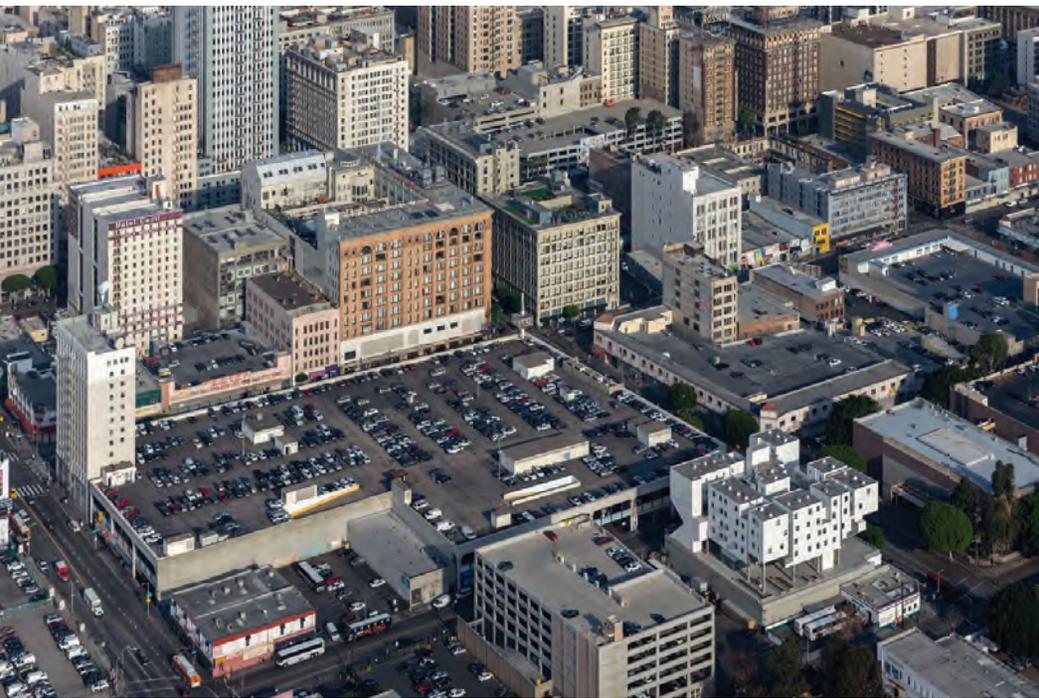
Project: Star Apartments (2013)
Client: Skid Row Housing Trust
Architect: Michael Maltzan Architecture

Mechanical /Electrical: Green MEP Engineering Consulting
Structural: B.W. Smith Structural Engineers, Nova Structures
Landscape Architect: Valley Crest Design Group
Civil: KPFF Consulting Engineers
Geotechnical: Geocon West, Martin Newsom & Associates
Construction Manager: Dreyfuss Construction
General Contractor: Westport Construction
Interior Designer: Collaborative House
Fire & Life Safety: Arup
Certified Gold as a LEED for Homes Pilot Project

Services and Occupants:

First Floor: The new headquarters of the Los Angeles County Department of Health Services' (DHS) Housing for Health Division and a medical clinic
Second Floor: Health and Wellness Center- common spaces such as a community kitchen, meeting room, art room, and library, as well as recreational spaces such as an exercise room, running/walking track, and a pickle ball court.
2,000 square feet of community edible gardens

102 units @ 350 SF
95,000 Gross Square Feet
\$40 Million



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TRANSFORMING OUTDATED INFRASTRUCTURE

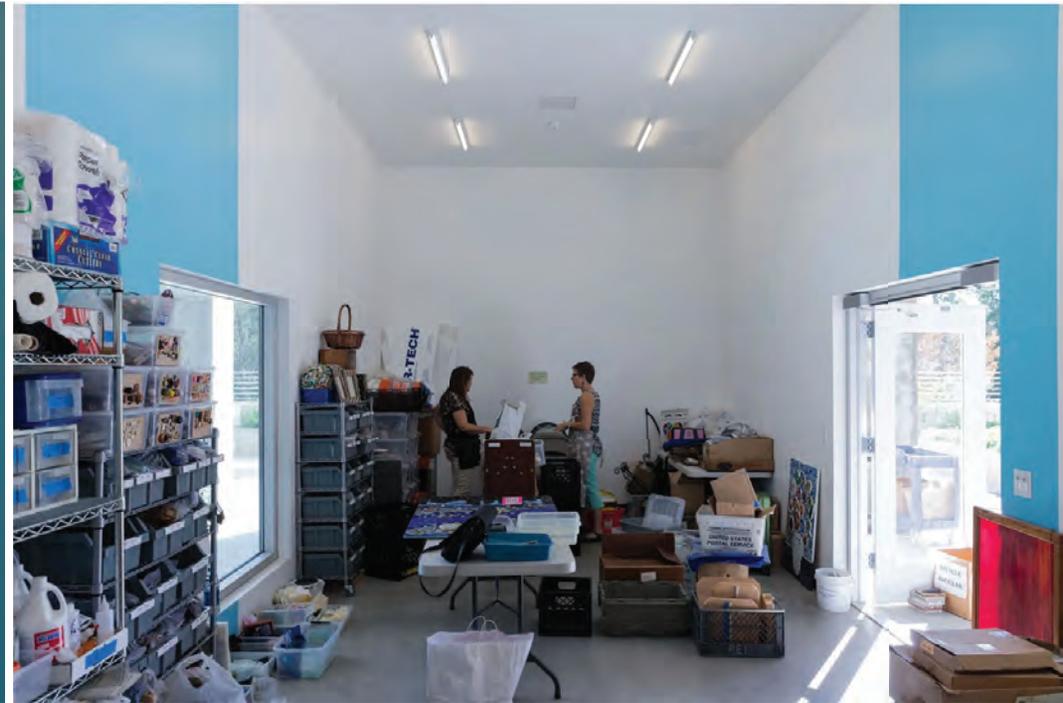




SELECTED SITE & RETAIL SPACE



RENOVATED RETAIL SPACE- STAR APARTMENTS



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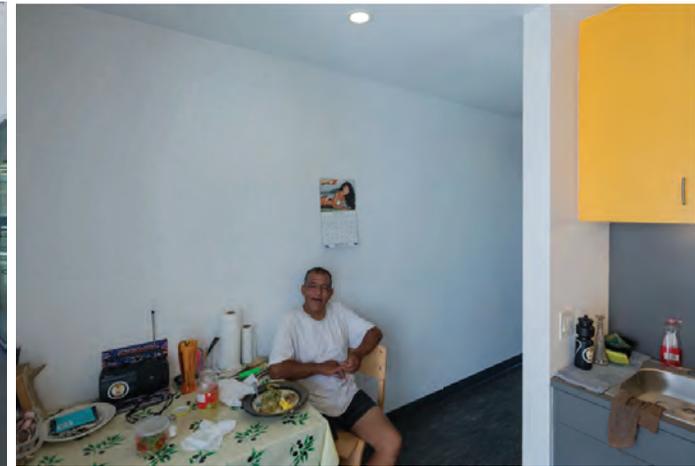
REHABILITATION THROUGH COMMUNITY ARTS

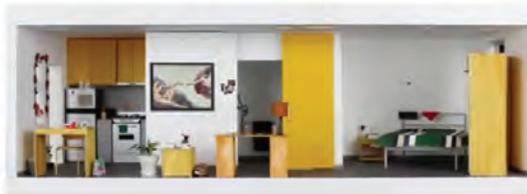


- 1 MAIN ENTRANCE
- 2 LOBBY
- 3 HEALTH CLINIC
- 4 HOUSING FOR HEALTH OFFICES
- 5 PARKING
- 6 PATIO
- 7 EXERCISE
- 8 DINING/KITCHEN
- 9 LIBRARY
- 10 ART
- 11 GARDEN
- 12 APARTMENT



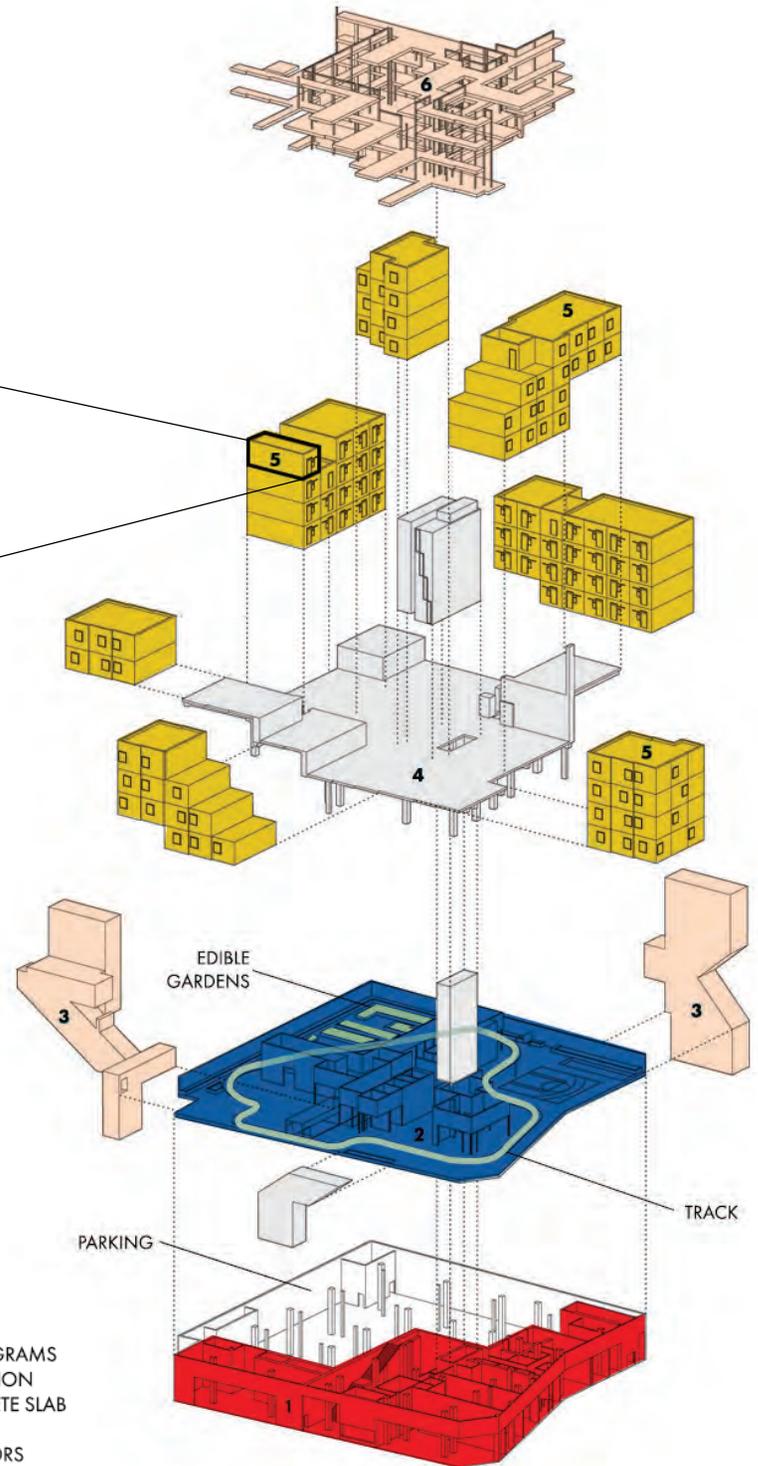
- HEALTH CLINIC
- COMMUNAL
- STAFF AND SERVICES
- INFORMAL CIRC
- OPEN AIR CORRIDORS
- RESIDENTIAL UNITS
- EDIBLE GARDENS





MAQUETTE PROTOTYPES OF MODULAR UNITS (5)

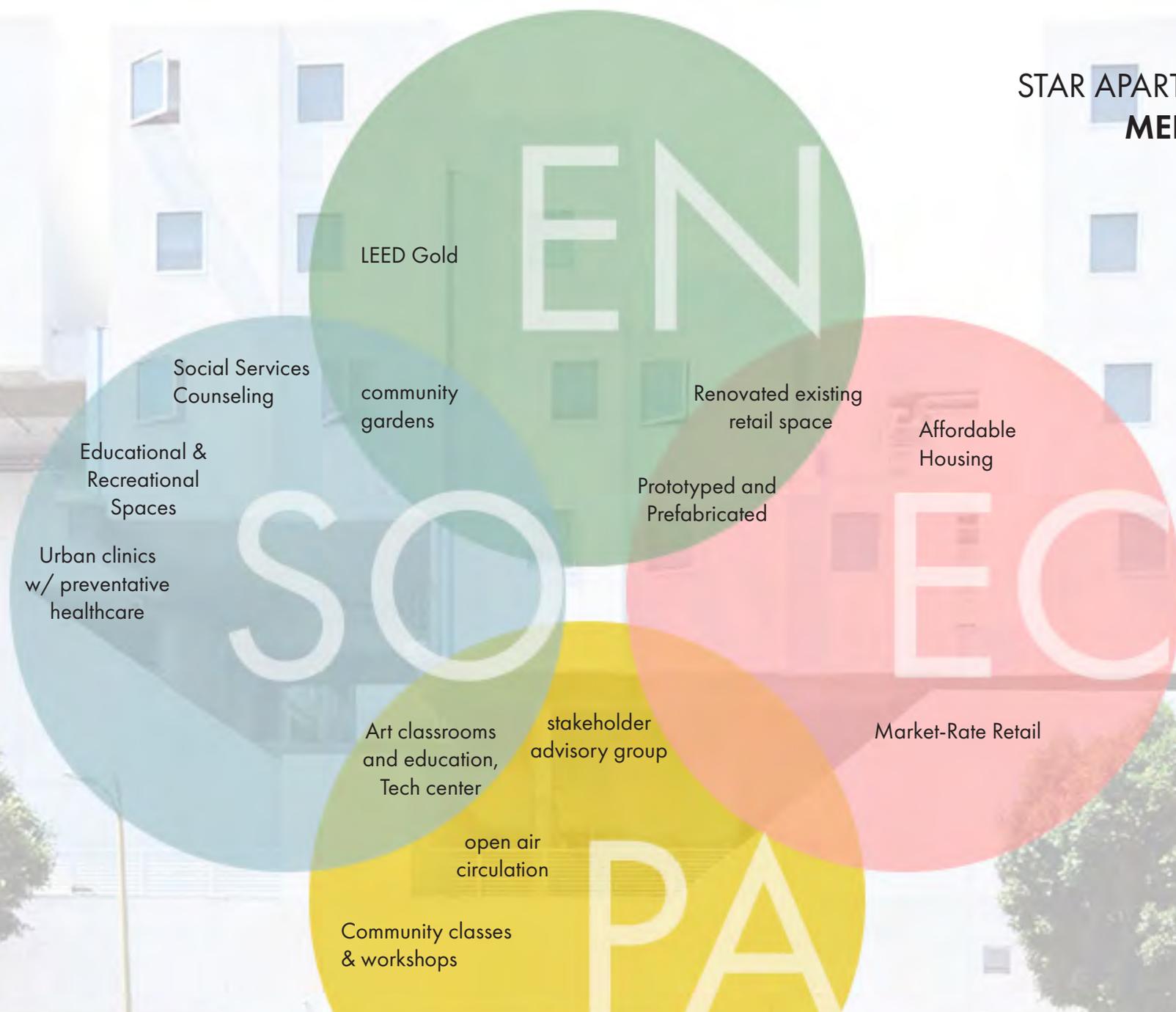
<https://www.gsd.harvard.edu/event/michael-maltzan-addressing-homelessness-what-can-and-cant-architecture-do/>



- 1 STREET-LEVEL RETAIL
- 2 COMMUNITY PROGRAMS
- 3 VERTICAL CIRCULATION
- 4 TERRACED CONCRETE SLAB
- 5 MODULAR UNITS
- 6 OPEN AIR CORRIDORS

STAR APARTMENTS EXPLODED AXON

STAR APARTMENTS MEET SEED

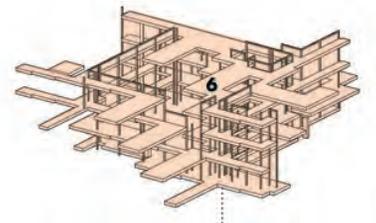


American Architecture Award Chicago Athenaeum, Museum of Architecture and Design, 2016
Mies Crown Hall America's Prize (MCHAP) Finalist, 2016
AIA, Los Angeles Residential Architecture Design Award, 2016
AIA, Los Angeles Architecture Design Honor Award, 2015
U.S. Green Building Council Outstanding Affordable Housing Project, 2015
AIA, California Council Architecture Design Honor Award, 2015
Los Angeles Business Council Architectural Award, 2012
AIA Next LA Design Award, 2012



© IWAN BAAN 1996-2021

LIGHT & OPEN AIR CIRCULATION





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SERVICES ON THE GROUND



STAR AT THE 2018 VENICE BIENNALE

RESOURCES:

<https://www.gsd.harvard.edu/event/michael-maltzan-addressing-homelessness-what-can-and-cant-architecture-do/>

<https://www.architectural-review.com/buildings/housing/street-life-michael-maltzans-social-housing-in-los-angeles>

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Carly Hansen

Bryan Bell, Katie Wakeford

ARC 563

20 April 2021

A Study of Buildings That Teach

I believe that one crucial role of education is to equip people with the knowledge to make a positive difference in society. Africa has seen huge disparities within their educational sector due to the lack of educational training and unequal distribution of essential facilities (Musau, n.d.) In order to provide basic and accessible education to the growing number of African children, designers (with the help of non-profit organizations and local stakeholders) and governments need to invest in the development of children. Two examples of newly constructed educational facilities are Toshiko Mori Architect's Fass School and Teachers' Residence in Senegal and Swawou Primary School in Sierra Leone. Africa's current education systems do not cater to females, differently abled, poor, or rural families (Kiendrebeogo; Wodon, 2020). Kevin Watkins sheds light on the complexity of education in Africa in his op-ed, *Too Little Access, Not Enough Learning: Africa's Deficit in Education*, by stating, "With one-in-three children out of school, progress towards universal primary education has stalled. Meanwhile, learning levels among children who are in school are abysmal... CUE (Brookings Center for Universal Education) estimates that 61 million African children will reach adolescence lacking even the most basic literacy and numeracy skills." Both of these case studies overcome the current educational disparity by providing quality education that stimulates social mobility, thereby reducing both poverty and social inequality.

The critical issues that these educational facilities address stem from the geological sites that these case studies are located in. Both of these projects are located in West Africa, therefore, it is important to understand the meaning behind “African architecture.” Architectural Review sponsored a debate, ‘Speak Up, Speak Out, Speak Back: Africa Architecture Awards 2017’ to discuss the lively culture of African design and the potential threat of modern-day colonialism (Beaumont, 2017). In order to prevent architectural discourse, South African architect and panelist Tanzeem Razak states, “African architecture is an architecture which offers voices to those historically without, integrating and making visible narratives which have previously been subverted and silenced throughout Africa’s violent and tumultuous history” (Beaumont, 2017). Therefore, it is vital to design useful programs through local building techniques and materiality while being sensitive to sustainability and social equality (Beaumont, 2017). Both the Fass School/Teachers’ Residence and the Swawou Girls Primary School use architectural design as a tool to further the local stakeholders’ agenda of providing literacy, safety, and job security. These educational programs are urgently needed due to the rural landscape in which they are located and serve a population that has been systematically overlooked and silenced (Musau, n.d.). Both of these projects also integrate Islamic teachings to maintain the the vital traditions of the communities it serves and acts as a cultural hub by connecting several isolated neighboring villages (*Le Korsa*, n.d.). This sense of community that is ingrained within the curriculum of these programs was born out of the collaboration of the design process.

The success of these projects are credited to the collaborative synergy between the design teams and local stakeholders. Toshiko Mori’s office sent Jordan MacTavish to Senegal to oversee the construction of the Fass School and Teachers’ Residence (*Le Korsa*, n.d.). With the help of

local contractors and input from nearby villagers, the design was manifested over the course of many workshops (*Le Korsa*, n.d.). Toshiko Mori's team got first hand experience with the local materiality and how best to utilize bamboo, mud-bricks, grass, and recycled tiles to coincide with the Senegalese housing typology ("Fass School and Teachers' Residence"). After further analysis of local building techniques, the Fass School slowly developed into a circular structure with a strong inside-outside relationship (WA Contents, 2020). The internal courtyard grounds the structure by providing circulation and interaction between students and faculty ("Fass School and Teachers' Residence"). The use of local construction practices furthered the Senegalese vernacular through local traditional skills and materials. The building techniques that are practiced in Senegal relate directly to the materiality of the landscape and their effect on the local climate. Some of the solutions that were incorporated to combat the harsh dry seasons are white painted mud-bricks to deflect heat and the perforation allows for natural ventilation throughout the classrooms and residence (WA Contents, 2020). The bamboo laden roof supports a stack effect which allows hot air to rise and cool air to circulate throughout the interior spaces (WA Contents, 2020). On the other hand, the monsoon season required the facility to be well insulated and rerouted drainage of heavy rainfall (Walker, 2016). A thatched pitch roof of 45 degrees maximized rainwater runoff to empty into an existing aquifer that surrounds the perimeter of the structure (WA Contents, 2020). These local climactic forces are thoughtfully addressed through the utilization of local building materials which emphasizes the craftsmanship seen in this comprehensive design.

Sierra Leone was severely impacted by the Ebola outbreak in 2014 which coincided with the construction of the Swawou Primary School (Rojas, 2016). After two rigorous rainy seasons

and the eradication of Ebola in the region, construction was able to commence with the help of local construction workers and the Orkidstudio design team (“Swawou School: Spring Update,” 2017). Andrew Perkins, an architect from Orkidstudio, returned to Sierra Leone to continue working with 70 local volunteers and villagers (“Swawou School: Spring Update,” 2017). The Swawou Foundation and Hazel’s Footprints Trust financed the design development and construction of the school and supported teachers during the Ebola crisis (“Swawou School: Spring Update,” 2017). These organizations worked closely with local volunteers and villagers to promote community development by incorporating their concerns and needs into the overall design and program of the facility. Orkidstudio taught entrepreneurial and construction skills to the local workers with the intention that they could build more facilities and homes in the region (Walker, 2016). This reinforced that the Swawou Primary School did not belong to a private entity but to the community and the young girls that are enrolled there. This project supports the inclusion of young girls into the educational system that did not exist before and serves as a safe and habitable facility. Similar to the Fass School in Senegal, Sierra Leone experiences the same climactic issues which directly influenced the design of the Swawou Primary School. The floating metal roof is a great example in optimizing natural ventilation in the dry season while efficiently diverting rainwater to local water channels the during monsoon season (Walker, 2016). The conditions of the region’s climate and landscape became a focal point, much like the Fass School, with the integration of flexible classrooms and a central courtyard (Mark, 2016). Furthermore, maximizing natural daylight through the use of shuttered openings and external circulation allows the students to be safely monitored during the day (Walker, 2016). Both of

these projects address the intensity of their local climates and landscape through locally sourced design elements to better educate and empower an underserved population.

Initially, Senegal and Sierra Leone lacked a socio-economic and cultural hub that centered these remote villages. These case studies empower African identity and strengthen their cultural legacy in the wake of disease outbreak, poverty, religious conflict, corruption, and terrorism (Rojas, 2016). In regards to the Fass School and Residence, the Senegalese community now offers a safe and comprehensive learning facility that teaches traditional elementary curriculum taught in the French language along with practical skills and Quranic teaching (WA Contents, 2020). Now that the school is at full capacity and has been active for two years, we can analyze how Senegal has changed in a societal, economic, and environmental manner (*Le Korsa*, n.d.). Since the founding of the Fass School, illiteracy has decreased exponentially as young boys and girls are able to learn to read and write in French and the local language of Pulaar (WA Contents, 2020). The religious leaders in this region of West Africa worked closely with the programmatic desires of this project, therefore, Islamic teachings are integral to the education of the students (*Le Korsa*, n.d.). The annual dry and wet seasons that Senegal experiences is no longer a concern and does not inhibit the learning curriculum due to these design implementations.

Both of these case studies are thoroughly documented by the foundations that financed them, therefore, there is an apparent bias that is present in their published evaluations. The Swawou Primary School, according to the Hazel's Footprints Trust, "its business as usual at Swawou, with the teachers and girls busy with classes and other school activities" ("Swawou School: Spring Update," 2017). The partiality of this statement is evident and it would be far

more convincing if a third party evaluated the future growth of this project. This should not, however, diminish the commendable work that the Hazel's Footprints Trust or the Swawou Foundation executed. Enrollment has doubled in the five years after the completion of the Swawou Primary School along with the integration of a school farm (*Le Korsa*, n.d.). Moreover, teachers recently participated in training workshops to efficiently deliver primary curriculum in preparation of future epidemics ("Swawou School: Spring Update," 2017). The education and forethought of the teachers directly benefits the young girls enrolled at Swawou Primary School. Many young girls in Sierra Leone do not have educational stability, much like in Senegal. They are at risk of gender biased violence, early marriage and subsequent pregnancies, unemployment, and dependency on men (Kiendrebeogo; Wodon, 2020). Educational facilities, such as Fass School and Swawou Primary School, is an economic investment in African youth and restores social equality between genders. As a result, there is a crucial need for accessible safe, and adequate learning facilities that restore basic civil rights to young female African children.

Le Korsa has a long standing relationship with Senegal and the many surrounding villages through their nonprofit organization. They pride themselves on working directly with local doctors, students, and teachers in Senegal to improve their quality of life by addressing their needs. By networking with Senegalese colleagues and Toshiko Mori Architect, Le Korsa has developed the Fass School and Teachers' Residence in the hopes to culturally enrich the area through education. The design team was inspired by the local typology and materials which furthered their relationship with Senegalese contractors and builders. The primitive design of this project is highly sophisticated in its use of local building technique that is rooted within the landscape of Senegal. Scarcity of western building materials allowed the design team to be

creative with what they had on hand, such as grass, bamboo, mud-bricks, and recycled tiles (Mark, 2016). By utilizing local villagers intimate knowledge of the site and materials, the design team was able to better understand the relationship of program to materiality which proved very helpful in finalizing the design. Toshiko Mori Architect provided instructional diagrams to the local construction team to assist them in the structure's precise geometry which stimulated community involvement throughout every phase of the design process (WA Contents, 2020). This allowed for easy maintenance over time because the Senegalese people had an intimate understanding of the intricacies of the structure (WA Contents, 2020). In regards to the second case study, Orkidstudio approached the Swawou Primary School project with a keen understanding of local integration and its role on the design and construction of the facility. The design is a product of the aforementioned social unrest in Sierra Leone through the perception of local villagers and their communal needs. Orkidstudio hired 70 volunteers to construct the school, thereby teaching them sustainable building techniques that can be applied throughout the region (Mark, 2016). This created a sense of community that was nonexistent before and provided Sierra Leone with the tools to become more self reliant. Both of these case studies emphasize the symbiotic relationship between western design professional and rural African villagers to create a school that enriches young children's lives.

The Fass School and Teachers' Residence and the Swawou Primary School are exemplary examples of how education can unite underserved and isolated communities in Africa. Despite the fact that these projects are not SEED certified, they provide a glimpse into how designers can utilize materiality, unique construction methods, local labor, and African vernacular to eradicate the systemic injustice that has long plagued this region. The social and economic disparities

within African villages need to be understood and addressed in the future to enact beneficial change. I believe that these case studies are sufficient candidates for the SEED criteria due to their social, economic, and environmental priorities. Both of these schools aim to empower students and teachers, create job security through education and skilled trades, and utilize passive design techniques that coincide with their natural climate. All of these efforts are manifested through collaboration among local stakeholders to ensure that these schools continue to prosper within their respective communities.

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Structures of Distribution

Cassidy Putnam

GOAL: analyze **distribution** and **impact** of knowledge



Identify Stakeholders



Define Output



Measure Outcome

COMPARE & CONTRAST



Interfaith Food Shuttle

40%

OF FOOD THAT IS GROWN, PROCESSED, AND TRANSPORTED WILL NEVER BE CONSUMED.

IFFS partners with manufacturers, distributors and retailers to give that 40% to low-income communities.

INTER-FAITH FOOD SHUTTLE **STAKEHOLDERS**

BOARD OF DIRECTORS

Elton Wright, Allstate
Bob Alger, Alger Financial
Michael L. Golden, Wells Fargo Bank
Rodney Green, Duke Raleigh Hospital
Ken Smith, WRAL
Jake Rabon, Fresh-Pik Produce
Michele Tylka, Fidelity Investments
Deb Laughery, WakeMed
Melody Henderson, Wake Tech Comm. College
Nation Hahn, EdNC.org
Erica Henderson, GlaxoSmithKline
Masceo DesChamps, DesChamps Consulting
Mark Stanford, Capitol Broadcasting Co.
Kim McGimsey, Breakthrough Health
Jon Showalter, Homes By Dickerson
Matt Robinson, Pinnacle Financial Partners
Sean Fowler, Mandolin
Will Cannon, Parker Poe Adams & Bernstein LLP

FINANCIAL PARTNERS

Blue Cross Blue Shield, First Citizens Bank, HHHunt, Sysco, Chiesi, Adama, Farragut, United Way, City of Raleigh

FEEDING AMERICA FOOD BANK

Wake, Durham, Chatham, Orange, Johnston, Nash, Edgecombe

80+ K-12 SCHOOLS

7 LOCAL COUNTIES

VOLUNTEER PARTNERS

Pepsi, National Charity League, Cardinal Gibbons School, Cisco, Church of Jesus Christ of Latter-Day Saints, Durham Nativity School, Oak City Baptist Church, Community Workforce Solutions, Young Farmers & Ranchers, Blue Cross Blue Shield

WRAL, MIX101.5, CBS17

MEDIA PARTNERS

350+ RETAIL FOOD PARTNERS

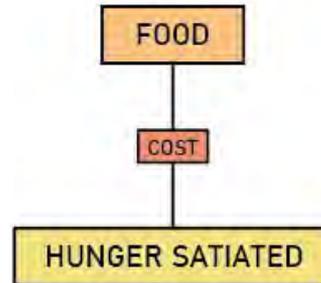
Walmart, Sam's Club, Trader Joe's, Ford's Produce, NC State Farmers Market, Harris Teeter, BJ's Warehouse, US Foods, Publix, **etc.**

Shepherd's Table Soup Kitchen, Healing Transitions, The Salvation Army, Raleigh Rescue Mission, The Fellowship Home of Raleigh, Trosa

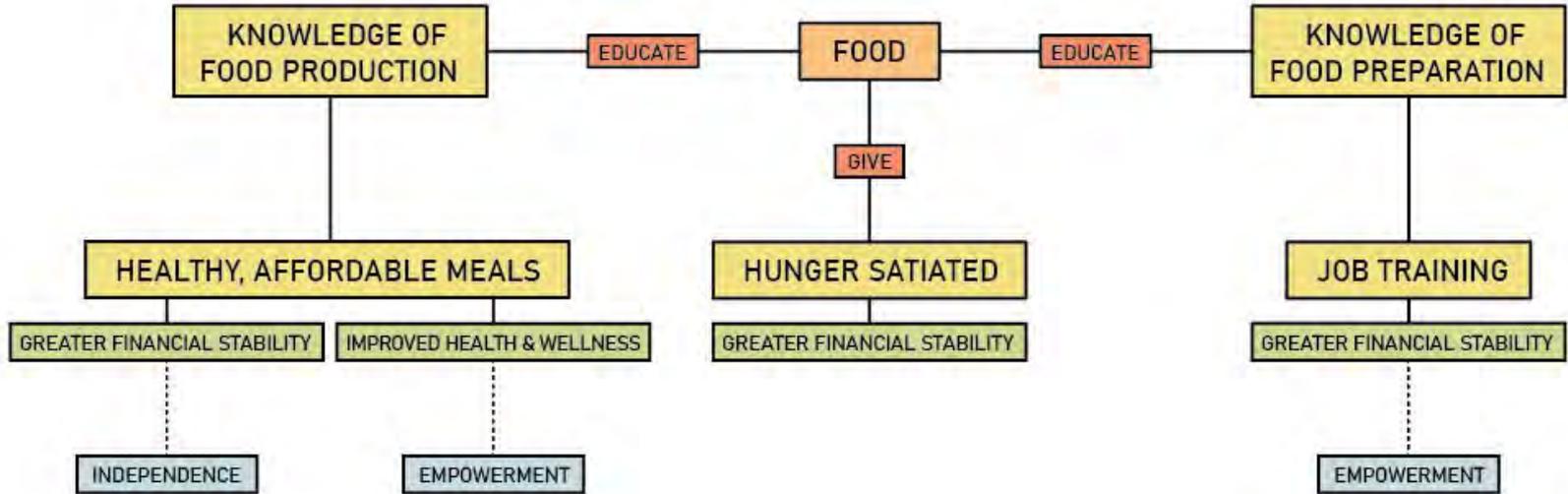
RETAIL DONORS

WHAT ELSE CAN FOOD DO?

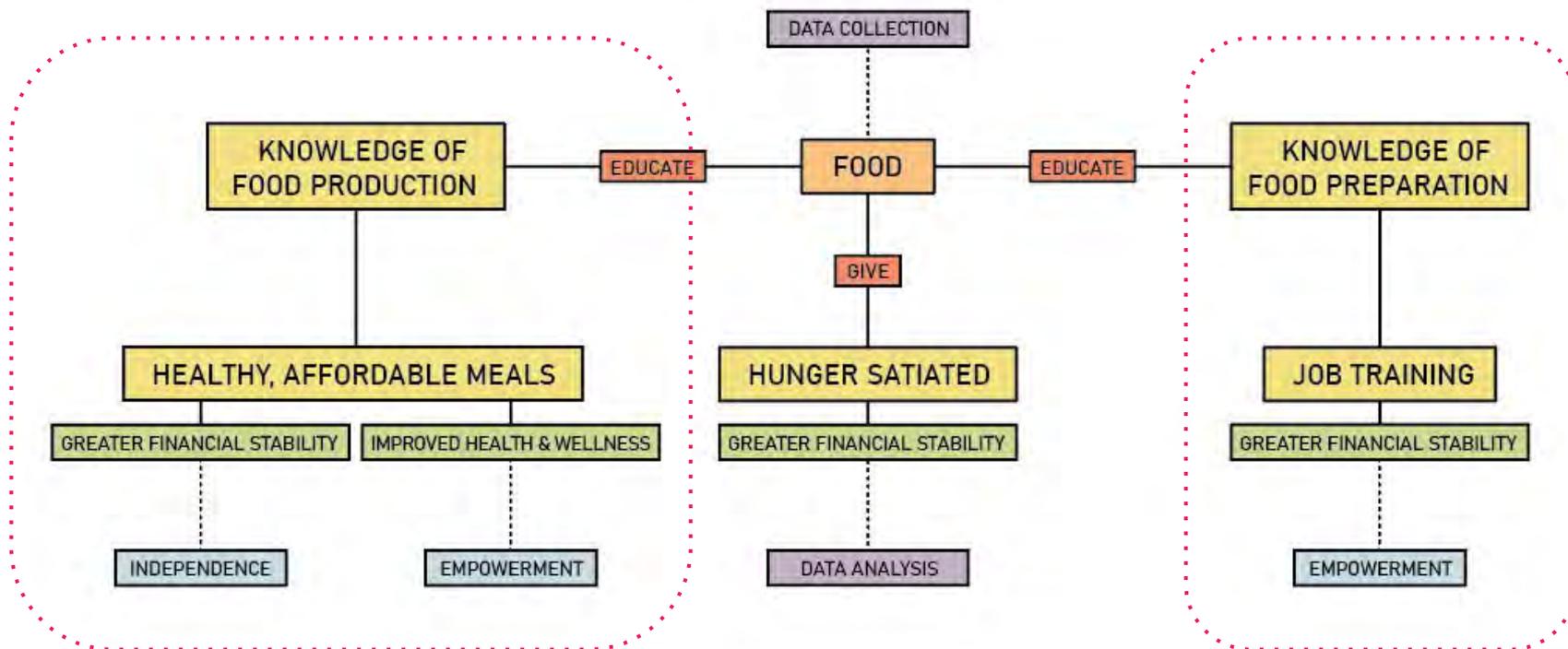
TRADITIONAL OUTCOME OF FOOD ACCESS



FOOD AS AN EDUCATIONAL TOOL: IFFS OUTCOME OF FOOD ACCESS



FOOD AS AN EDUCATIONAL TOOL: IFFS OUTCOME OF FOOD ACCESS



FOOD AS AN EDUCATIONAL TOOL:

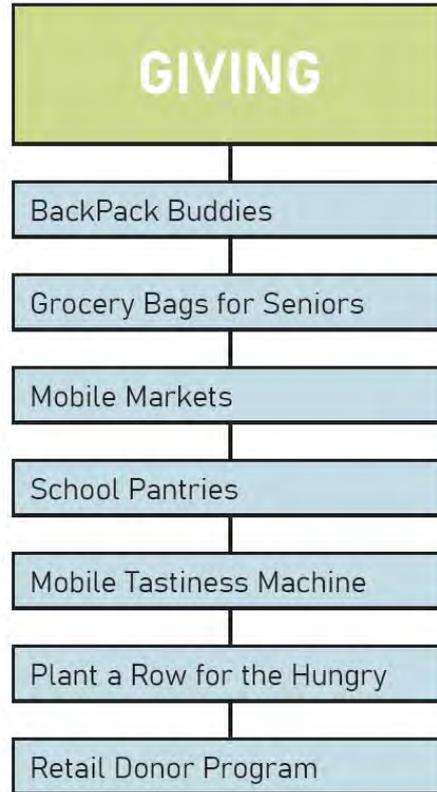


Define Output

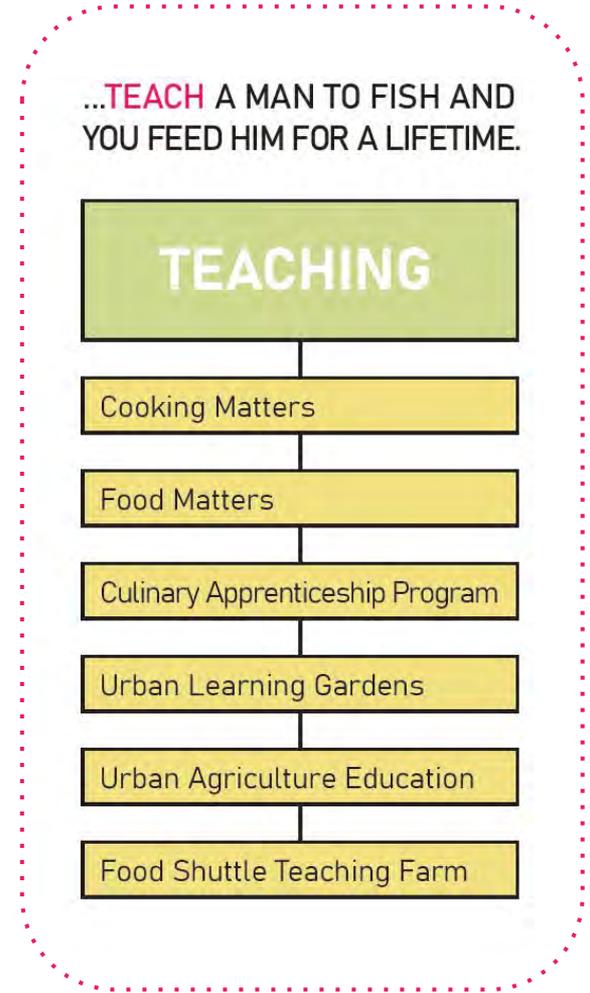


Measure Outcome

GIVE A MAN A FISH AND HE WILL EAT FOR A DAY...



...**TEACH** A MAN TO FISH AND YOU FEED HIM FOR A LIFETIME.

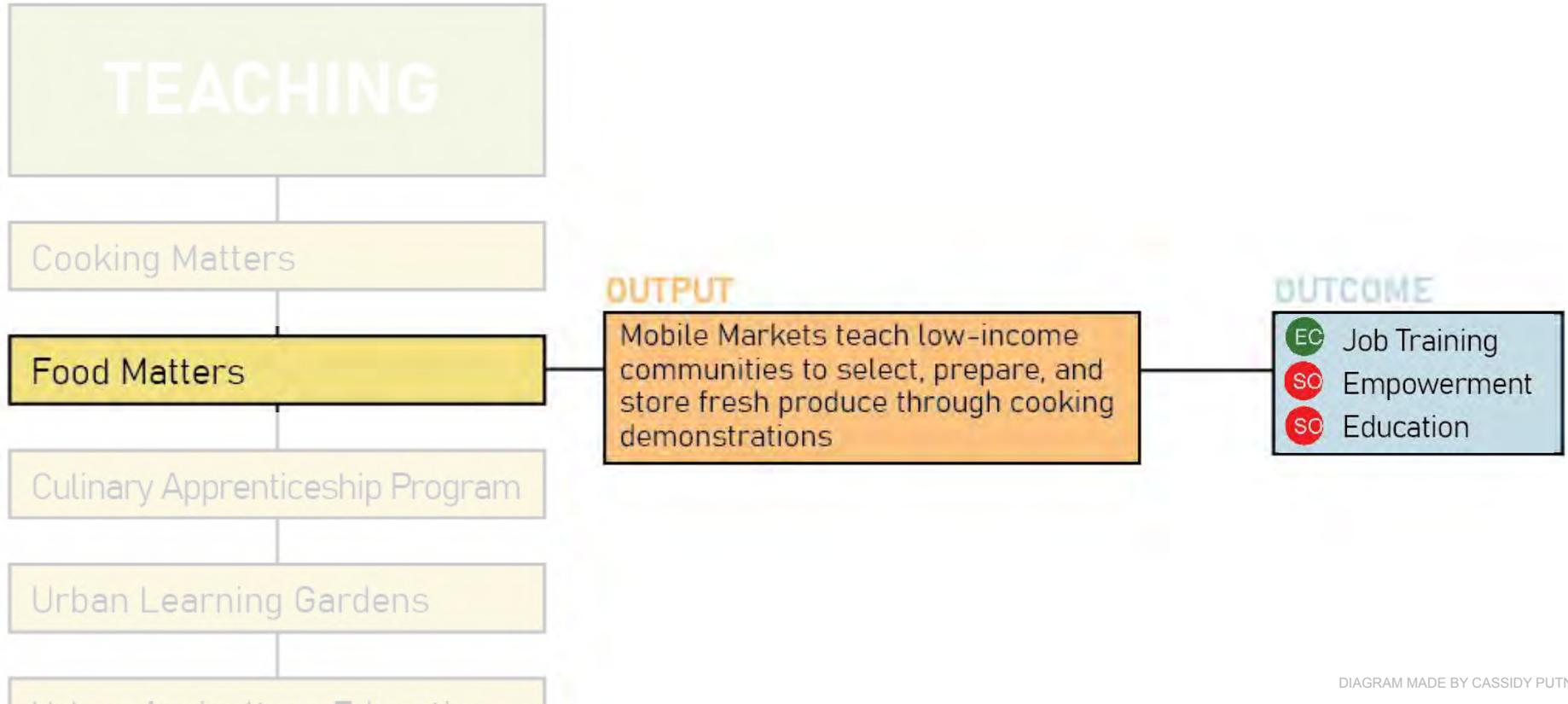


FOOD AS AN EDUCATIONAL TOOL: COOKING MATTERS



FOOD AS AN EDUCATIONAL TOOL:

FOOD MATTERS MOBILE MARKET





A Partnership for
Hunger Relief

Food Shuttle

FEEDING
AMERICA

AGRICULTURE

Ford
Ford Motor Company

PREPARED BY
BIBI CHAVEZ

Visit
www.feedingamerica.org

FOOD AS AN EDUCATIONAL TOOL:

FOOD MATTERS MOBILE MARKET

— — —

“We rely on the Food Shuttle. Without it, residents here would simply have less food. **All the fresh ingredients inspire residents to cook - and share meals together.** It really knits this little community together.”



Florence, MM recipient

FOOD AS AN EDUCATIONAL TOOL: CULINARY APPRENTICESHIP PROGRAM

— — —

After graduating from the program, Garrick got a job as a prep cook at Lucky 32 Southern Kitchen in Cary, N.C. He has worked in the kitchen there for **four years.**

“After taking the program, **it was much easier to get a job**...the program taught me how to work in a kitchen but also how to work with others.”



Garrick, CAP graduate

FOOD AS AN EDUCATIONAL TOOL: CULINARY APPRENTICESHIP PROGRAM

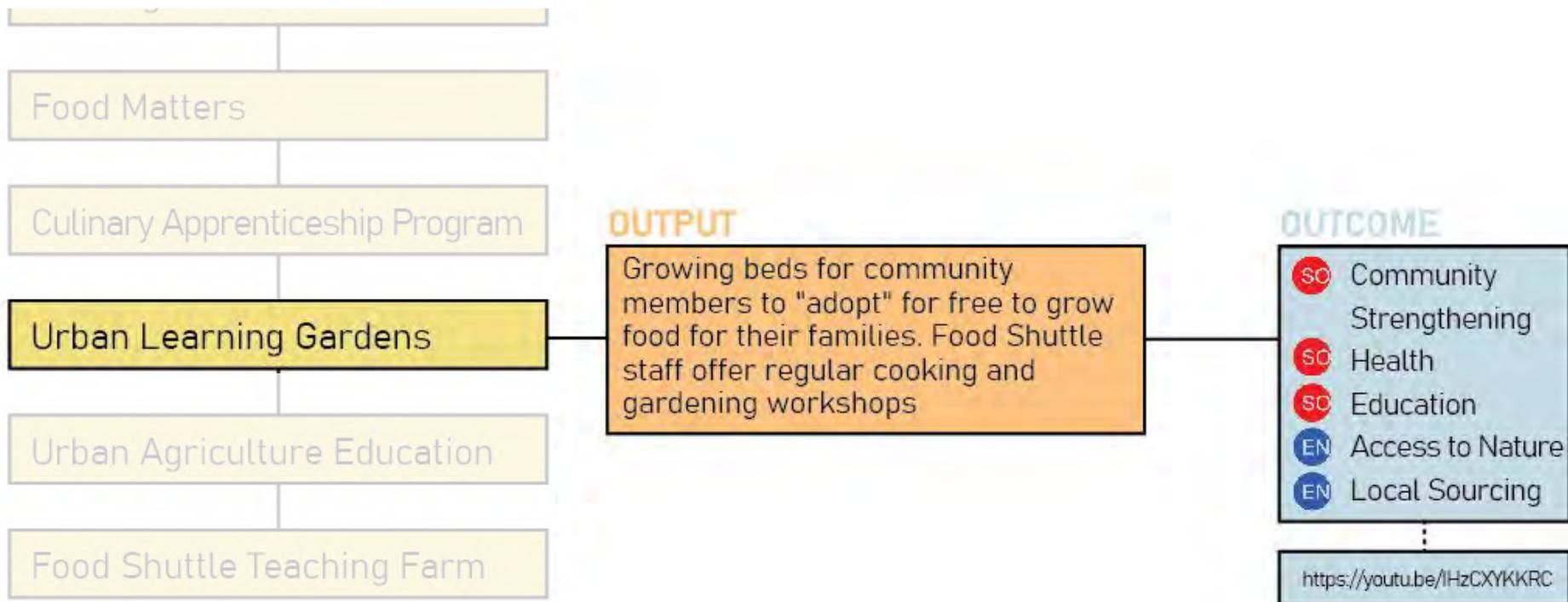
“Before the Culinary Job Training Program, I was uncertain and not confident. **After the training, I felt confident applying for jobs.** I was even offered a job here at Centerplate and another job at the same time! That made me think **‘Wow, I can do this.’**”



Maria, CAP graduate

FOOD AS AN EDUCATIONAL TOOL:

URBAN LEARNING GARDENS





FOOD AS AN EDUCATIONAL TOOL: CAMDEN STREET GARDEN

— — —

Tia lives in a food desert in Southeast Raleigh where there are very few grocery stores, so **fresh vegetables are hard to come by**. She learned valuable skills at the Camden Street Garden.

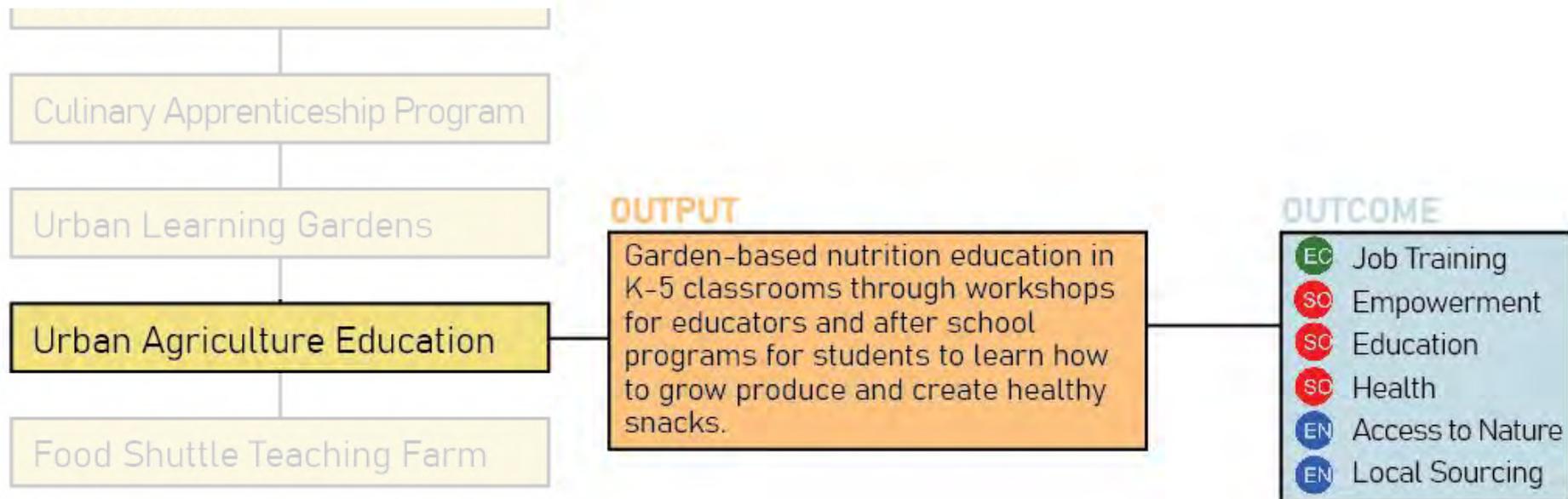
“I can’t wait to start feeding my family more veggies, **thanks to my new gardening skills.**”



Tia, CSG participant

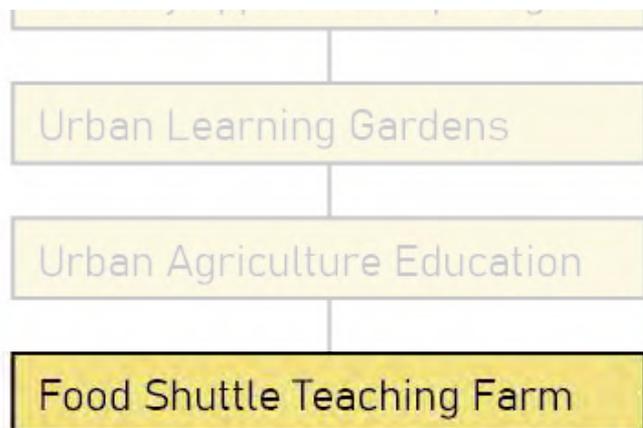
FOOD AS AN EDUCATIONAL TOOL:

URBAN AGRICULTURE EDUCATION



FOOD AS AN EDUCATIONAL TOOL:

FOOD SHUTTLE TEACHING FARM



OUTPUT

Hosts educational workshops for farmers and homesteaders, the Young Farmer Training Program for teenagers and also employs refugees.

OUTCOME

- EC Job Training
- SC Empowerment
- SC Education
- SC Health
- EN Access to Nature
- EN Local Sourcing

FOOD AS AN EDUCATIONAL TOOL: FOOD SHUTTLE TEACHING FARM

— — —
Maw Roeh is a Karen refugee whose family now lives in North Carolina because of the IFFS Teaching Farm program. The crops they grow supplement their food budget.

“We want to stand up on our own!”



Maw, IFFS participant

GIVING

6 MILLION
POUNDS OF FOOD
DISTRIBUTED
42% is FRESH
PRODUCE

WE FEED

59,089 ADULTS & CHILDREN
AVERAGE PER MONTH



6,992 PEOPLE
shopped for FREE
at neighborhood
Mobile Markets



1,771
SENIORS
received
grocery bags
delivered to
their door



45,568
PEOPLE
received food
at partner pantries,
soup kitchens
& shelters
where we
deliver food



2,133
CHILDREN
received
BackPack
Buddies
filled with
weekend meals



2,625
CHILDREN
received fresh produce, meals &
snacks through school pantries,
our commercial kitchen
& our food truck

WE TEACH

5,602 ADULTS & KIDS
PER YEAR



30
CULINARY
STUDENTS & INTERNS



5,001
PARTICIPANTS
in nutrition
education



561 COMMUNITY GARDENERS
in Raleigh and Durham Food Deserts



17 INCUBATOR & REFUGEE
FARMERS
on our
Teaching Farm

TEACHING

WE GROW

ACCESS TO HEALTHY FOOD

THROUGH 203

COMMUNITY CENTERS

in 7 counties



MAP LEGEND

FARMS & GARDENS (3)



FARM STANDS (2)



MOBILE FOOD MARKETS (25)



IFFS DISTRIBUTION CENTERS (2)



SCHOOL PANTRIES (18)



BACKPACK BUDDIES (69)



AGENCIES (84)



*"Give a man a fish.
Teach a man to fish.
Stock the pond for all."*

SEED ISSUES



Education

Empowerment

Food Insecurity

Green Gardening

Health

Strengthening
Community



Access to Nature

Environmental
Education

Local Sourcing



Access to products

Job training



Local media

Stakeholder
Advisory Group

Food Desert
Communities

Low-income
Communities

SEED Evaluator Criteria

Advocate for those who have a limited voice in public life.

Build structures for inclusion that **engage stakeholders** and allow communities to make decisions.

Promote social equality through discourse that reflects a **range of values** and social identities.

Generate ideas that grow from place and **build local capacity**.

Design to help **conserve resources** and minimize waste.



Measure Outcome

Ladder of Engagement

— — —

Manipulation

Neglect

Instruction

Listening

Consulting

Collaboration

Empowerment

Ownership



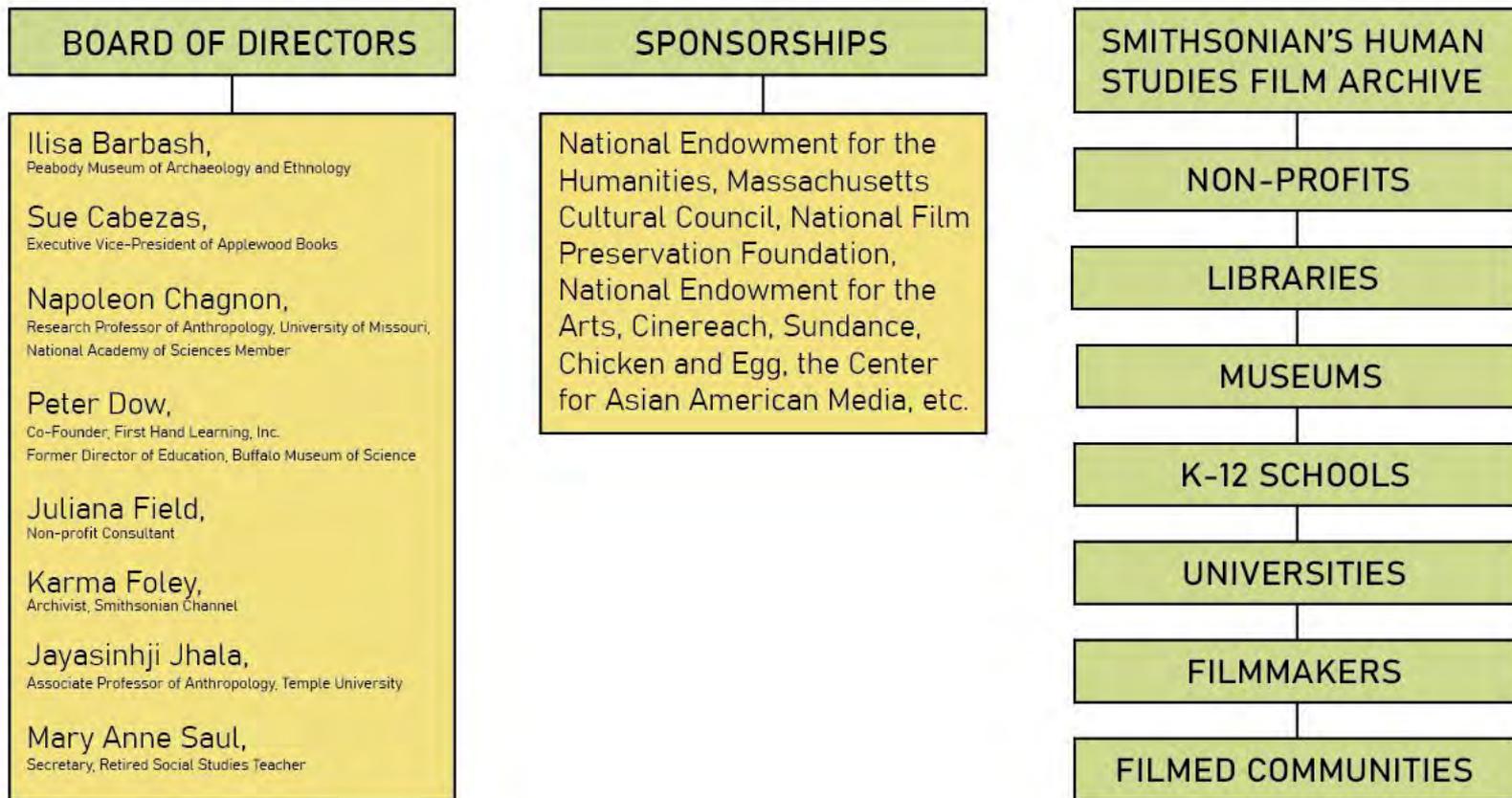
IFFS



Documentary Educational Resources

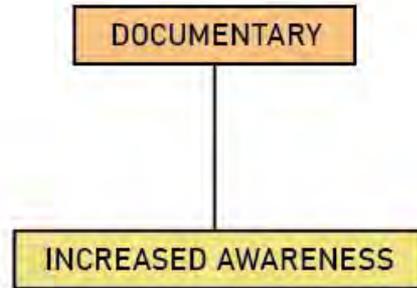
creation, circulation and preservation

DOCUMENTARY EDUCATIONAL RESOURCES **STAKEHOLDERS**



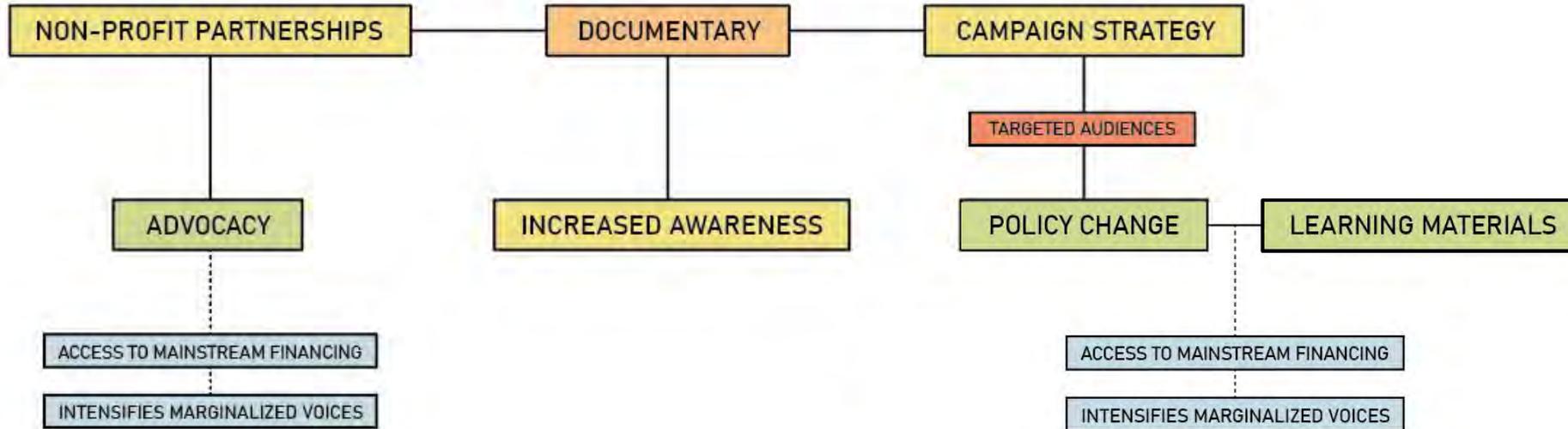
WHAT ELSE CAN FILM DO?

TRADITIONAL OUTCOME OF DOCUMENTARY SCREENING



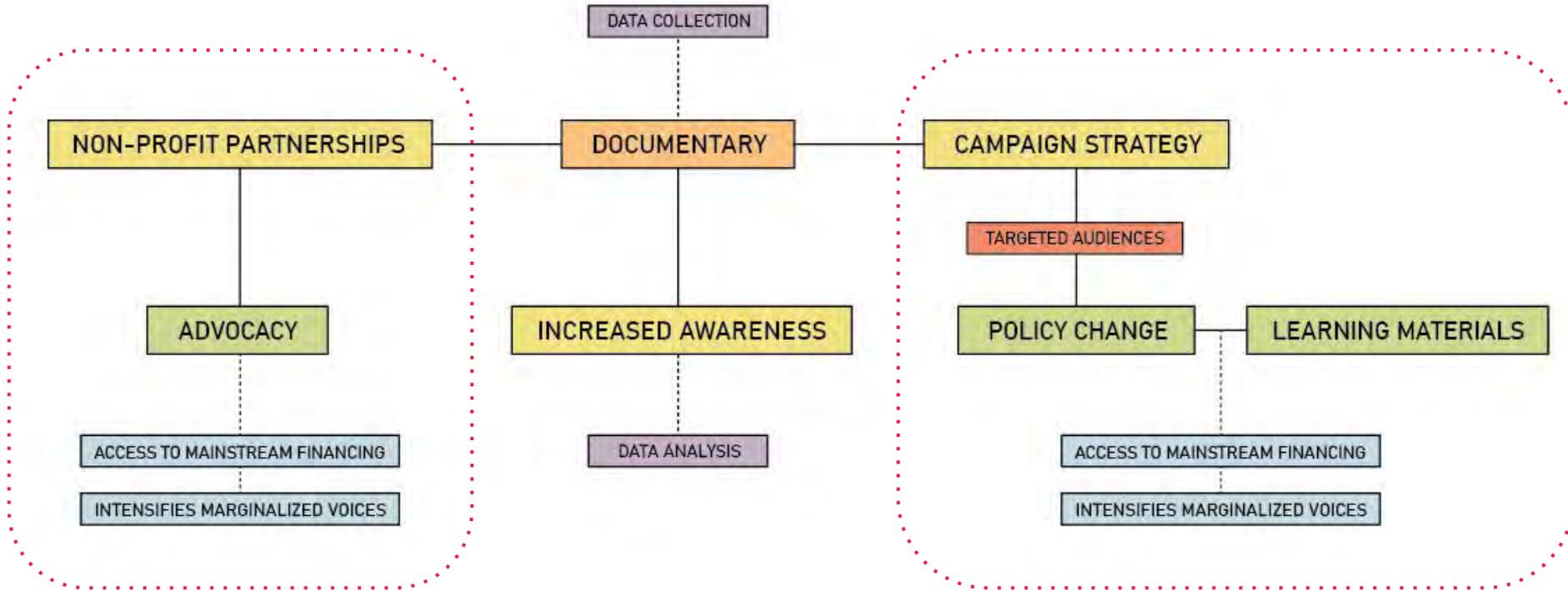
FILM AS A CAMPAIGN TOOL:

DER OUTCOME OF DOCUMENTARY SCREENING



FILM AS A CAMPAIGN TOOL:

DER OUTCOME OF DOCUMENTARY SCREENING



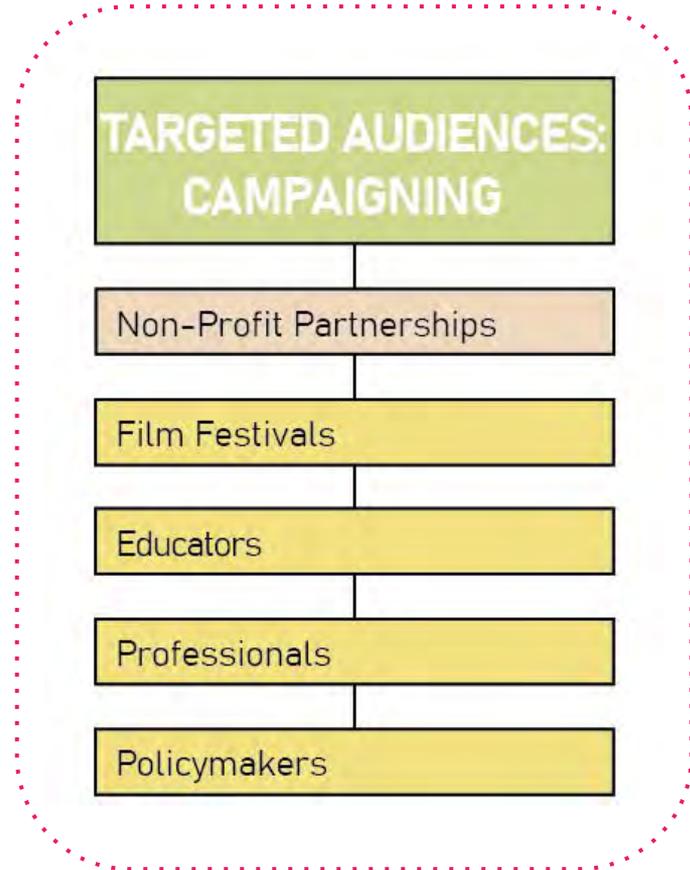
FILM AS A CAMPAIGN TOOL:



Define Output



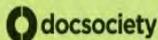
Measure Outcome





English

Original English made by:



★
1.0 INTRODUCTION

- 1.1 Welcome
- 1.2 The power of film
- 1.3 Analysing the story environment
- 1.4 How change happens
- 1.5 The challenge for filmmakers
- 1.6 Know thyself

🕒
2.0 PLANNING

- 2.1 Why vision & strategy matter
- 2.2 Defining your vision
- 2.3 Developing your strategy
- 2.4 Map the Issue
- 2.5 The four impact dynamics
- 2.6 Filmmaking as emancipatory practice
- 2.7 Draft your strategic plan

⚙️
3.0 IMPACT IN ACTION

- 3.1 Equipping for impact
- 3.2 The role of film teams
- 3.3 Meet the impact producer
- 3.4 Consider your subjects
- 3.5 Taking Safety Precautions
- 3.6 Sustainable and Equitable?
- 3.7 Build Impact Into Budgets
- 3.8 Find the Right Funders
- 3.9 Build Effective Partnershipss

📁
4.0 IMPACT DISTRIBUTION

- 4.1 What is impact distribution?
- 4.2 How commercial are impact films?
- 4.3 Types of distribution deals
- 4.4 Wheres Your Audience?
- 4.5 Global Reach
- 4.6 Time-tested Engagement Activities
- 4.7 When Impact and Distribution Come Together
- 4.8 Before You Sign On the Dotted Line

🎬
5.0 MAKING AND MOVING SHORTS

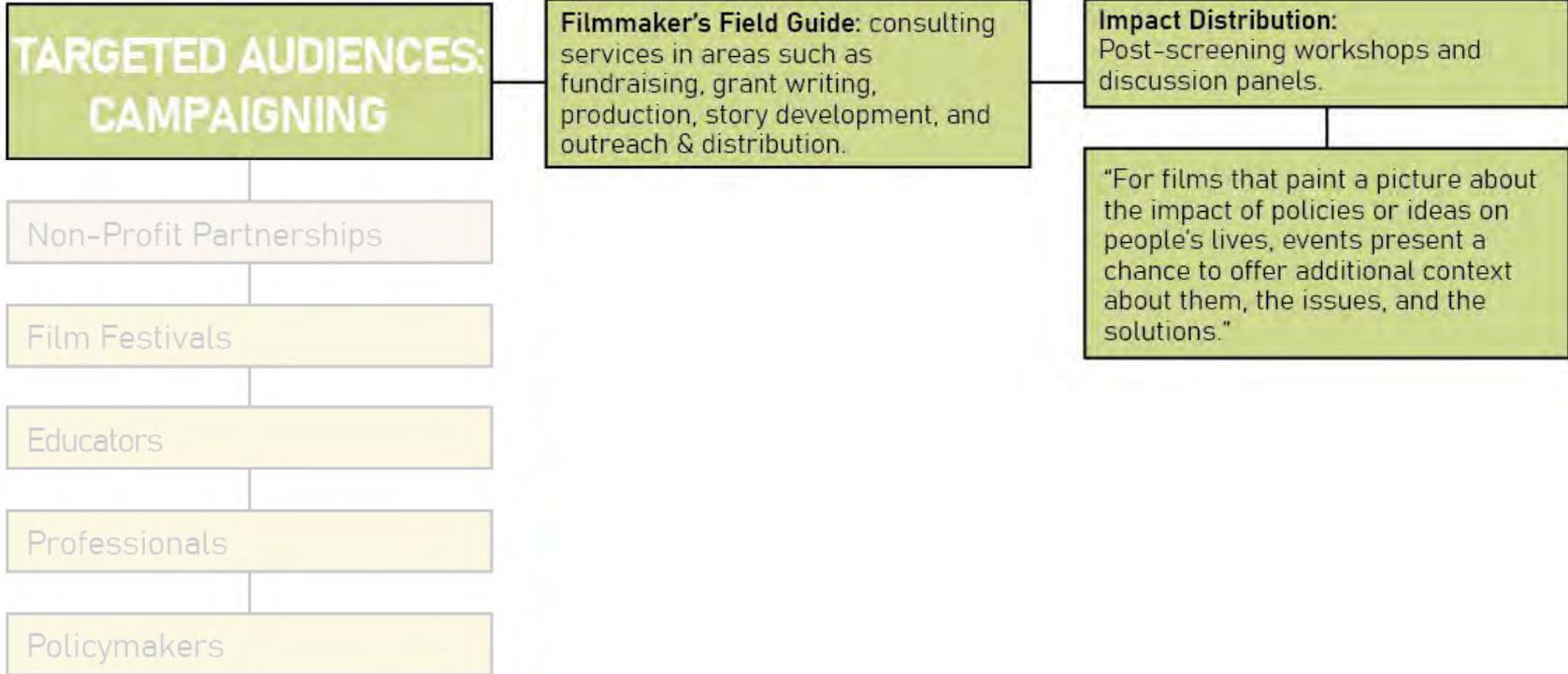
- 5.1 Why Shorts?
- 5.2 The Fundamentals
- 5.3 Impact in Action
- 5.4 Impact Funding and Distribution
- 5.5 Journalistic Partnerships
- 5.6 Take an Evaluative Approach
- 5.7 Case Studies

💬
6.0 MEASURING IMPACT

- 6.1 What We're Learning
- 6.2 What makes great evaluation
- 6.3 Embrace complexity
- 6.4 Your Impact Evaluation Plan
- 6.5 Evaluation toolbox
- 6.6 Putting It All Together
- 6.7 Wrapping up

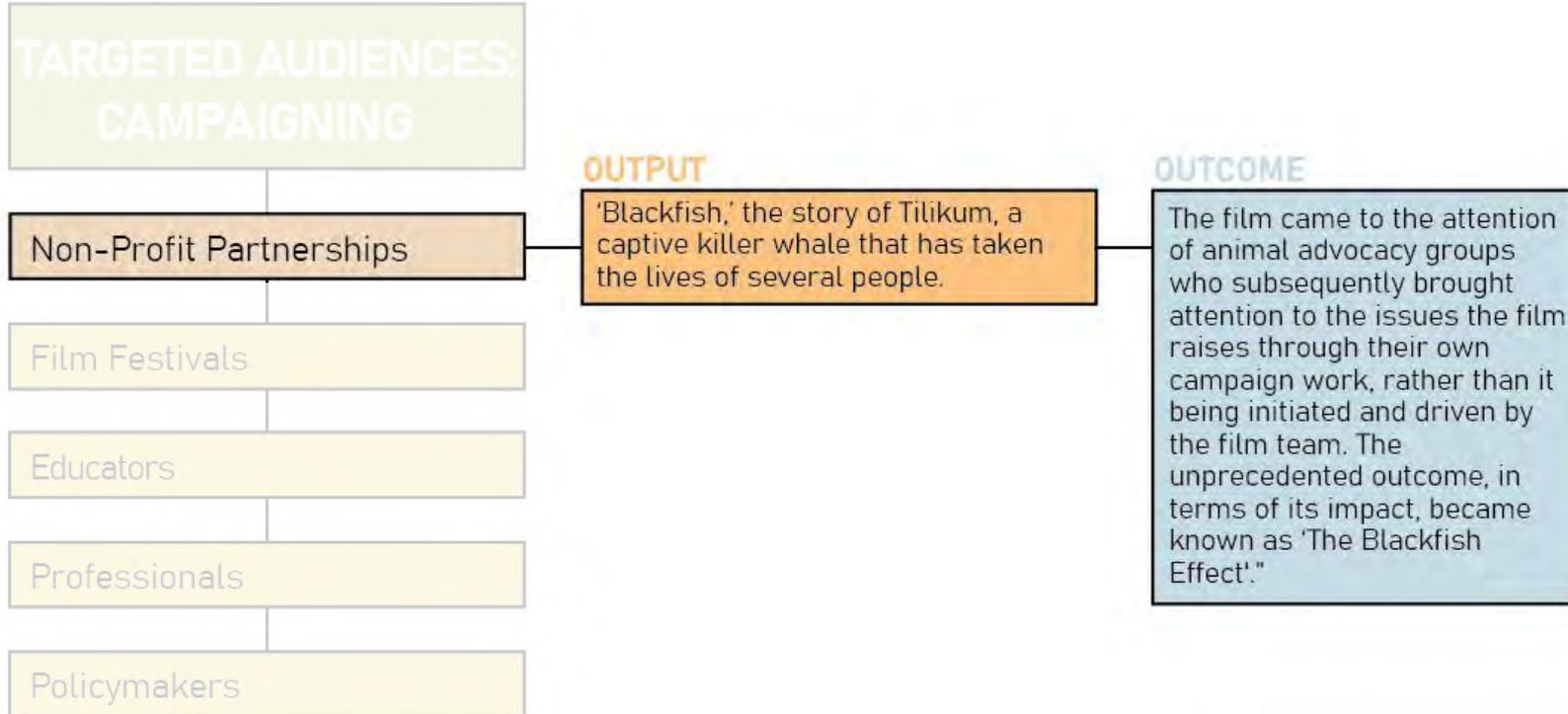
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & IMPACT DISTRIBUTION



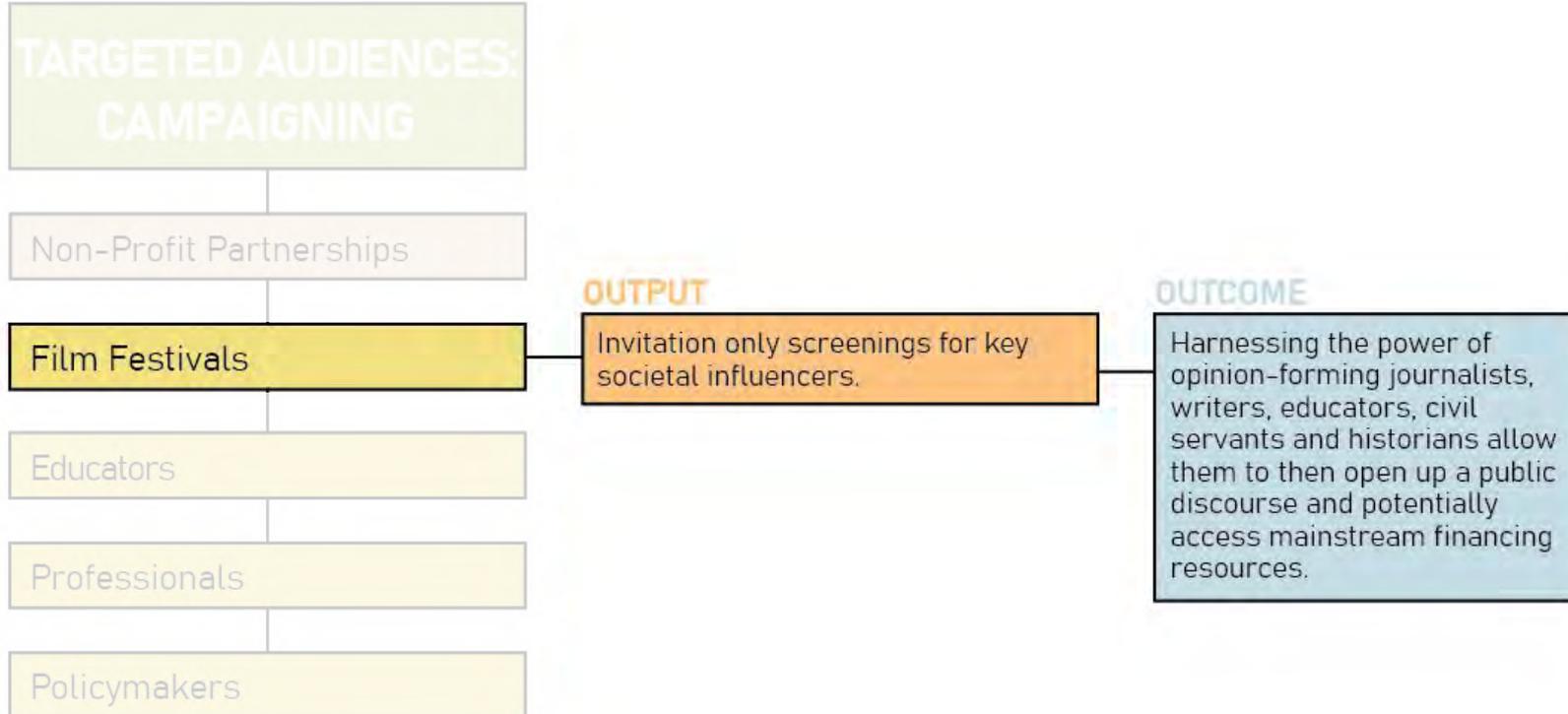
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & **IMPACT DISTRIBUTION**



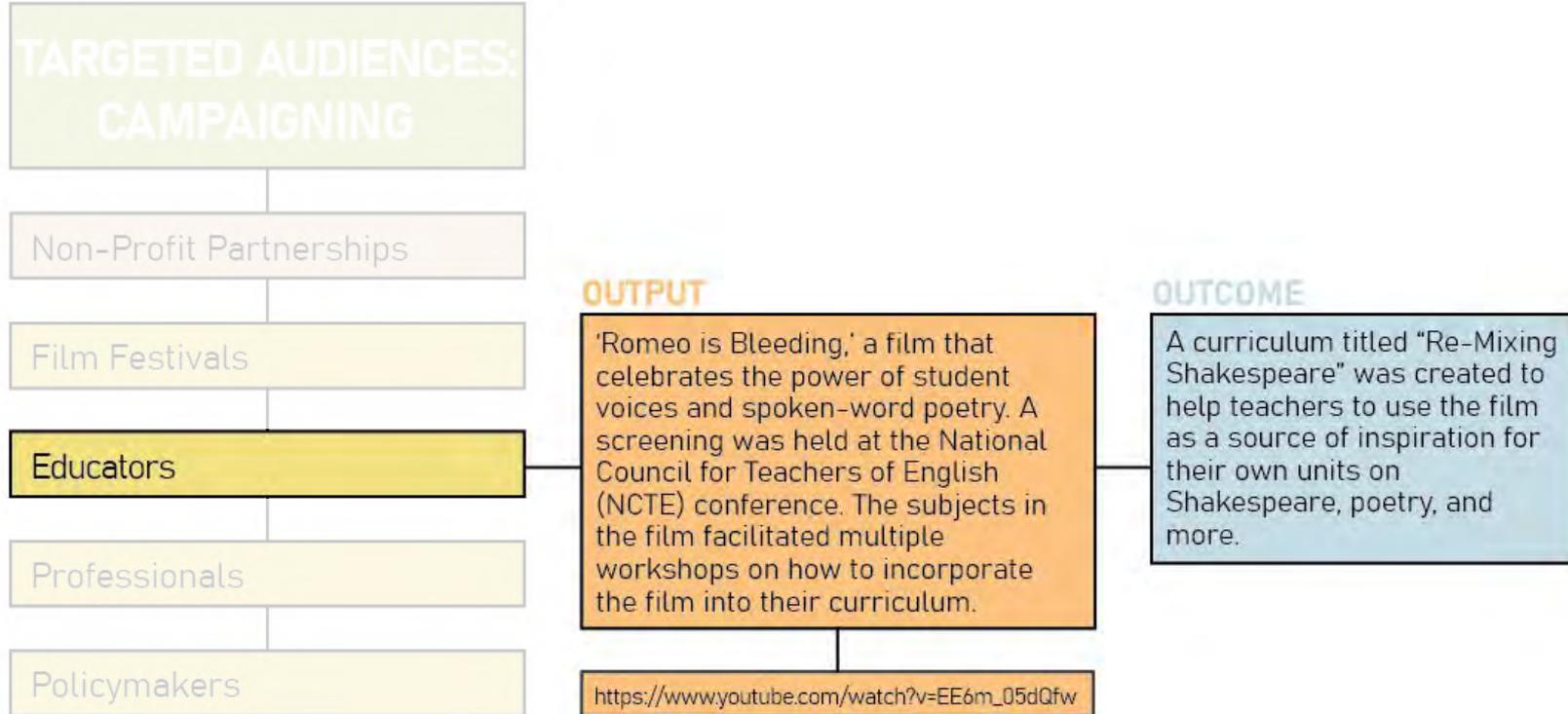
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & **IMPACT DISTRIBUTION**



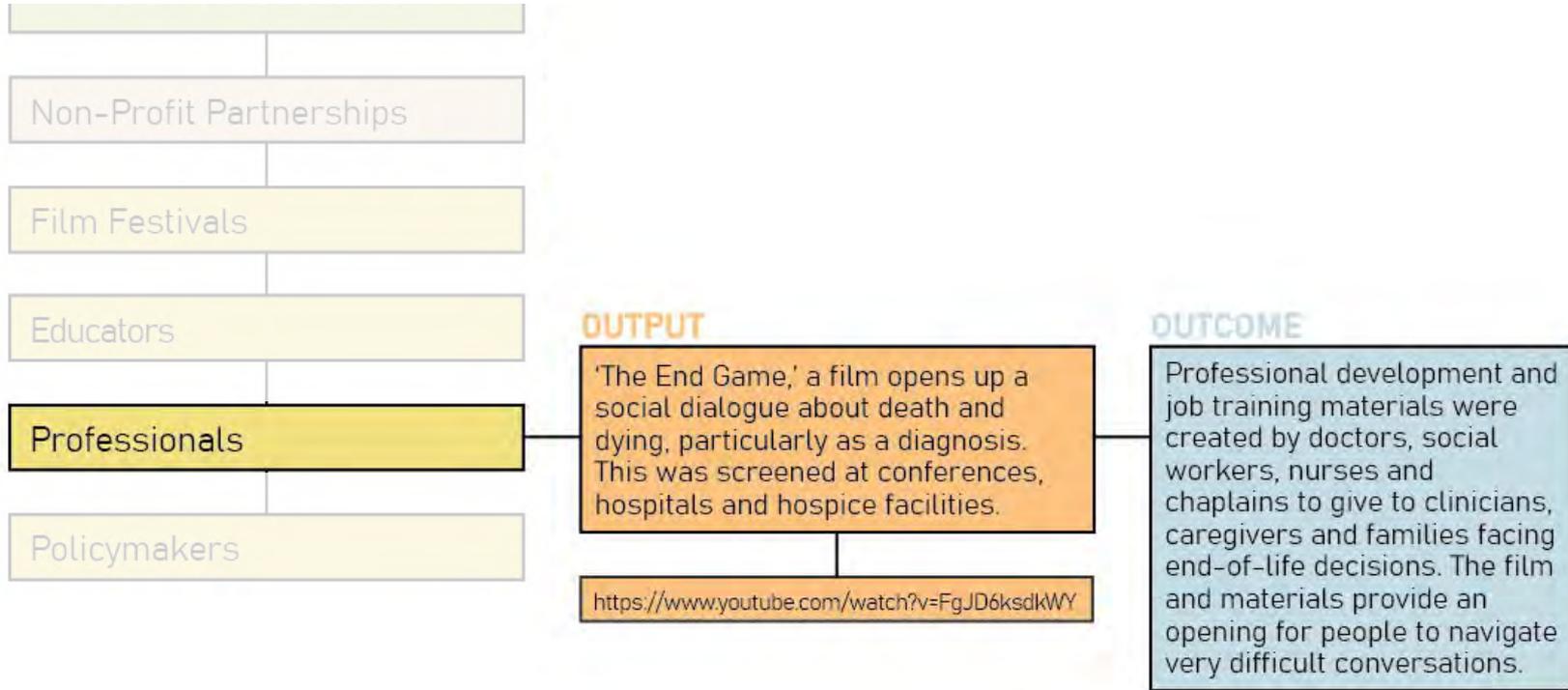
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & IMPACT DISTRIBUTION



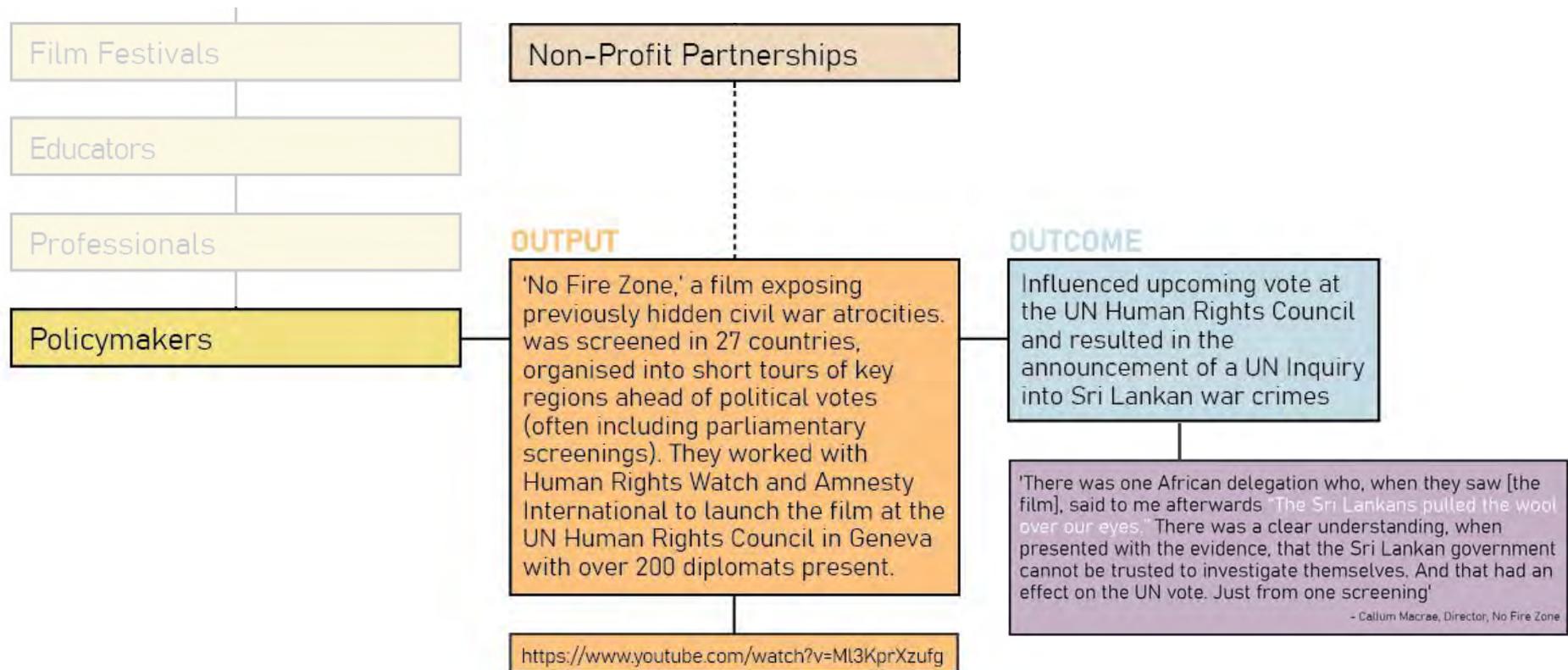
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & IMPACT DISTRIBUTION



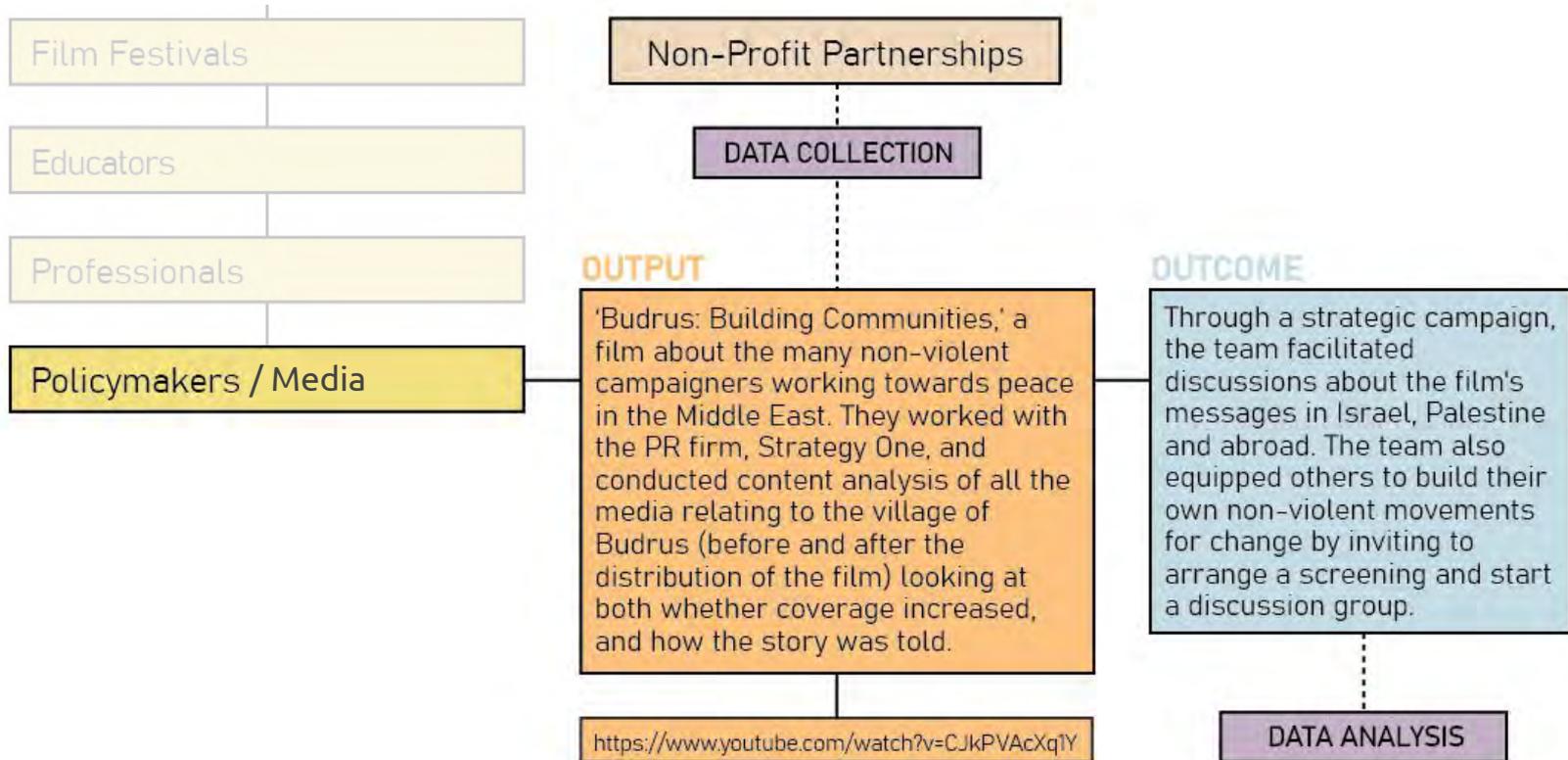
FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & IMPACT DISTRIBUTION

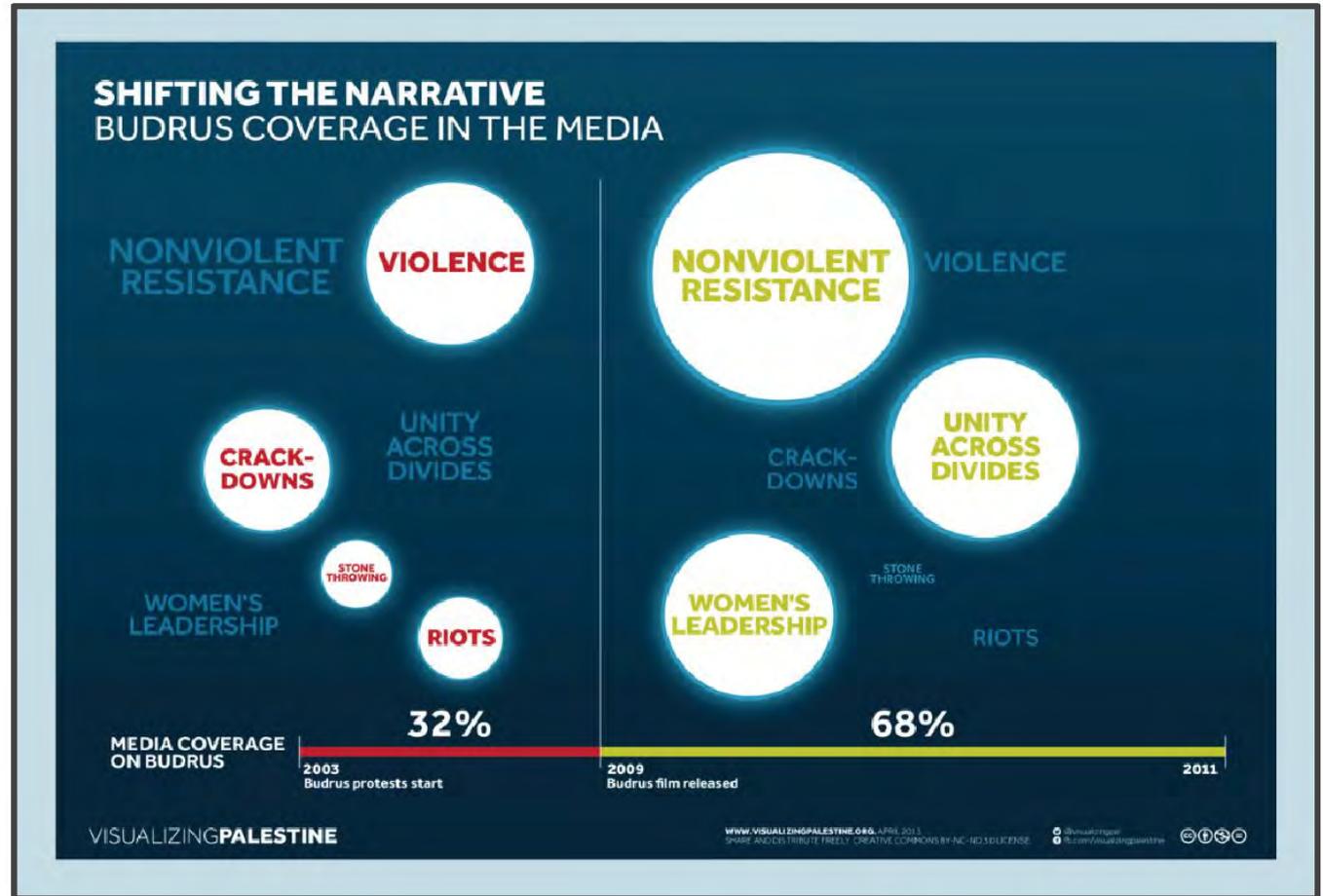
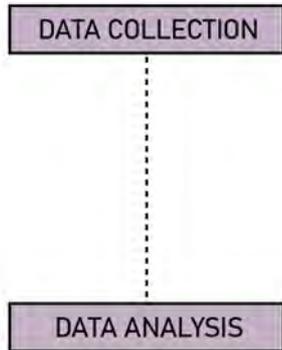


FILM AS A CAMPAIGN TOOL:

TIME-TESTED ENGAGEMENT ACTIVITIES & IMPACT DISTRIBUTION

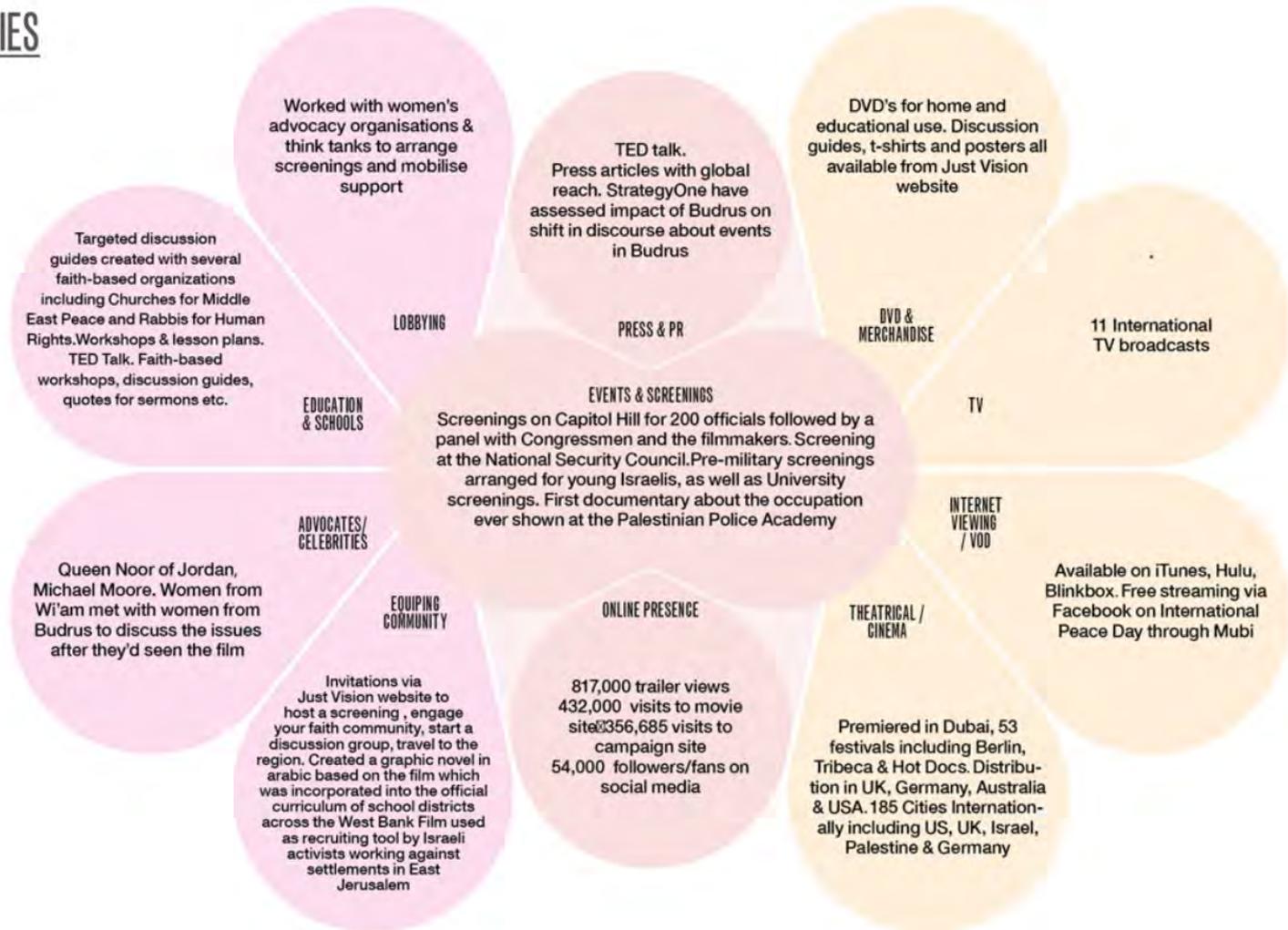
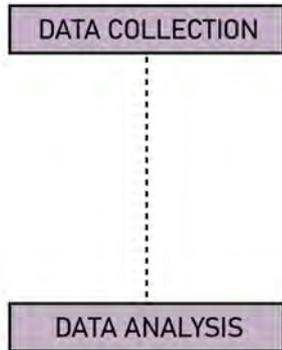


OUTCOME



BUDRUS : BUILDING COMMUNITIES

IMPACT & DISTRIBUTION



SEED ISSUES



Education

Accessibility

Cultural Heritage

Local Identity

Learning

Prejudice



Smart Growth

Preservation



Access to Mainstream
Financing

Cooperative Ownership

Economic Education and
Training

Job training



State Government
Support

Stakeholder Advisory
Group

Consulting Services

Workshops & Panels

SEED Evaluator Criteria

Advocate for those who have a limited voice in public life.

Build structures for inclusion that **engage stakeholders** and allow communities to make decisions.

Promote social equality through discourse that reflects a **range of values** and social identities.

Generate ideas that grow from place and **build local capacity**.

Design to help **conserve resources** and minimize waste.



Measure Outcome

Ladder of Engagement

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Manipulation

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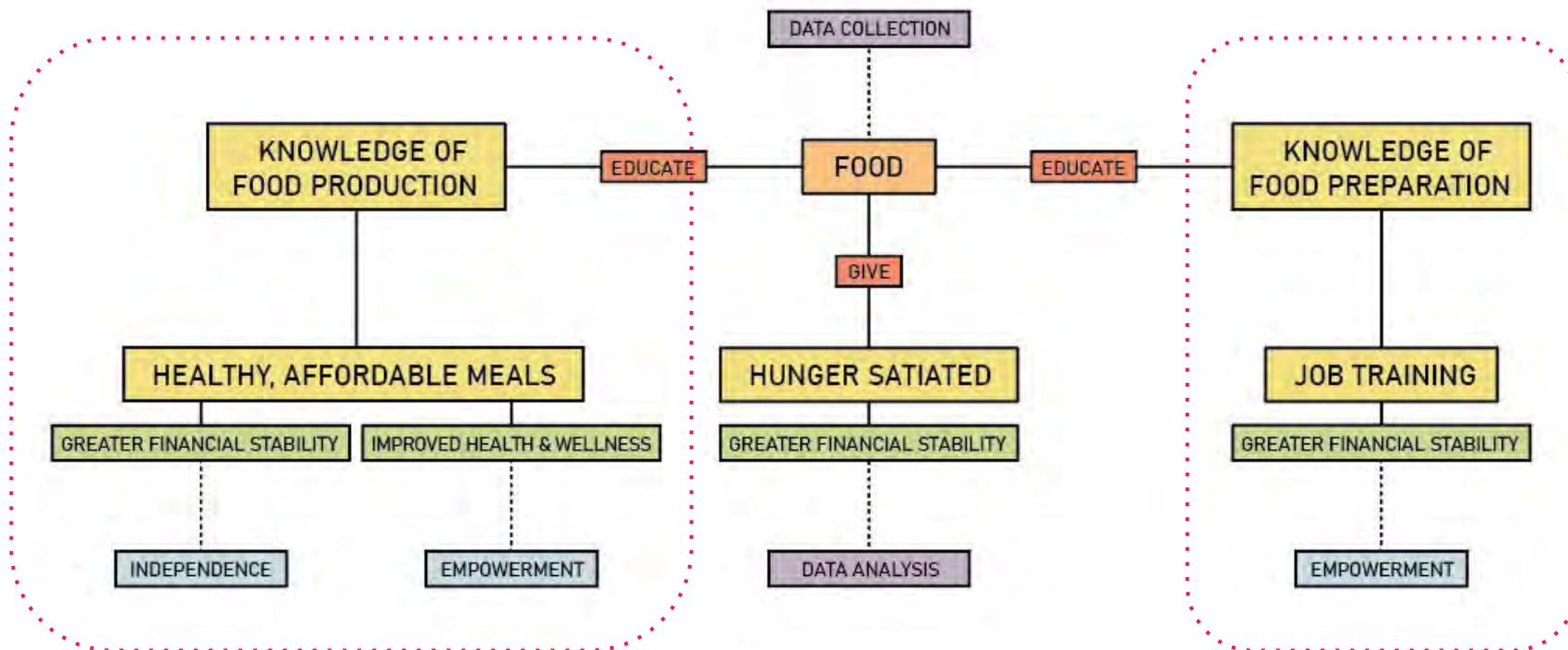
DER

COMPARE & CONTRAST

— — —

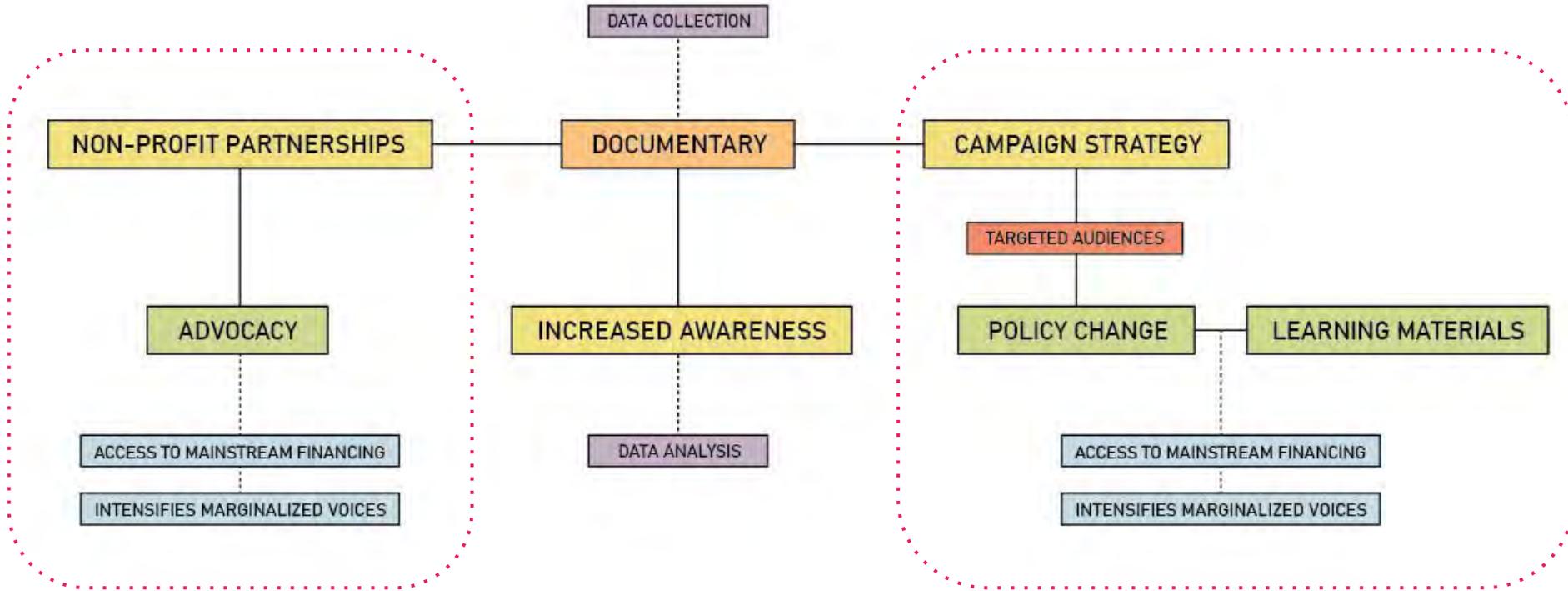
GOAL: analyze **distribution** and **impact** of knowledge

FOOD AS AN EDUCATIONAL TOOL: IFFS OUTCOME OF FOOD ACCESS

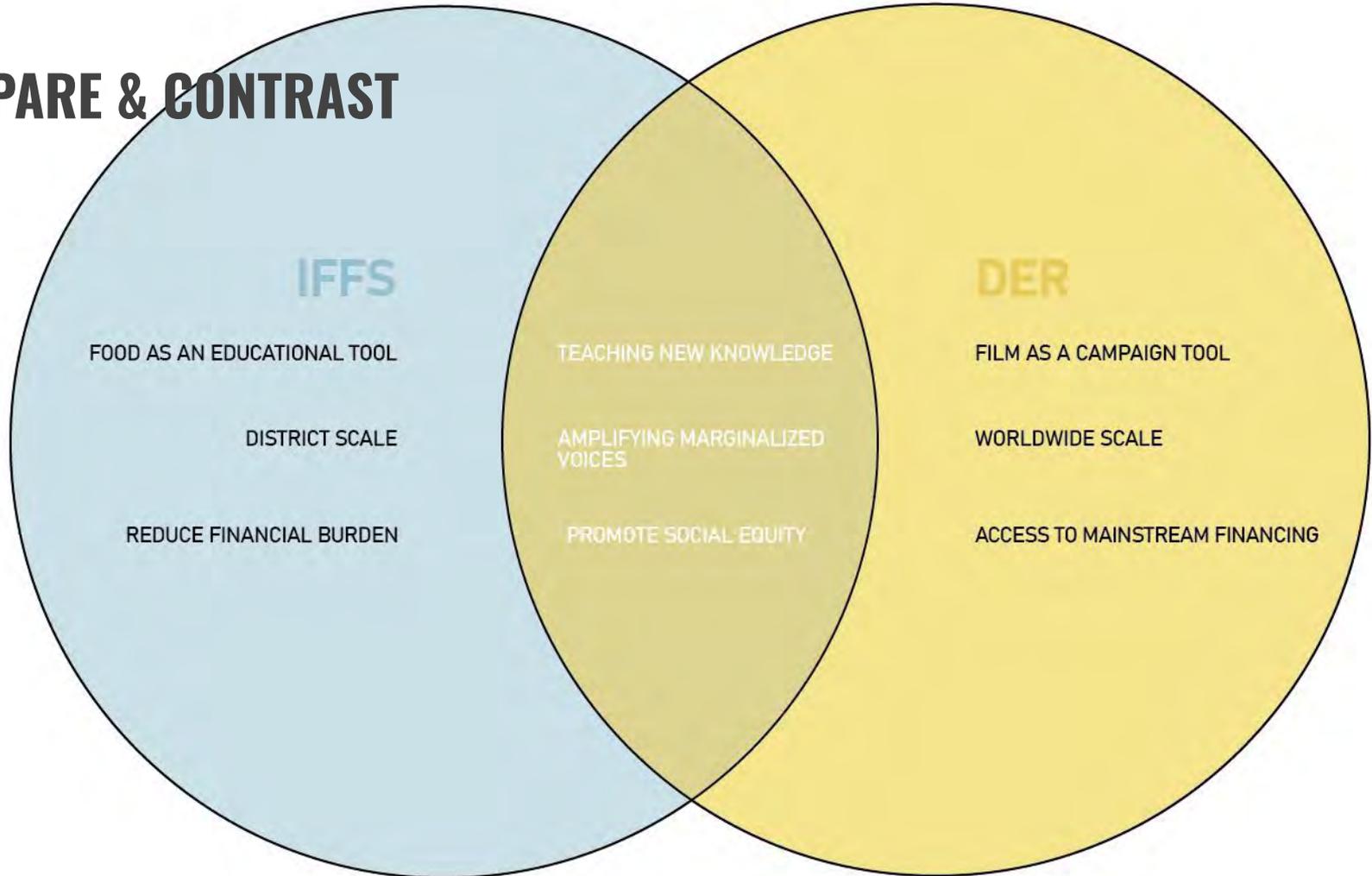


FILM AS A CAMPAIGN TOOL:

DER OUTCOME OF DOCUMENTARY SCREENING



COMPARE & CONTRAST



A Study of Teaching Through Building: The Lanka Learning Center + Ma'anqiao Village



Fig. 1: Aerial perspective of Lanka Learning Center. Fig. 2: Villagers reconstructing homes.

Public interest design challenges the common form of charity. It investigates for a deeper, systemic, empowering, lasting solution for both local and world problems. The projects selected exemplify the impact that good investigation and research can have on a community, leading to three dimensional, comprehensive solutions satisfying the triple bottom line of social, economic, environmental justice.

LANKA LEARNING CENTER

Project Overview

The Lanka Learning Center is a school and training center in Parangiyamadu, in eastern Sri Lanka, designed through the collaboration of feat., IRGE at the University of Stuttgart, and Transsolar, and constructed by local entrepreneurs, craftsmen, and workers in 2015. The center is composed of five radial pavilion modules grouped around a large interior courtyard. The architectural language borrows from local structure techniques, and is a showcase of the way that architecture can combat the harsh climate and natural disasters this little fishing village faces.

Location + Research

Parangiyamadu is south of Kalkudah, and is in the Batticaloa district of Sri Lanka – an area still suffering from the consequences of a civil war and a tsunami. In 2013, feat.collective was approached by

S.T.E.P.S. of forgiveness eV – Sri Lanka, with the proposal to build a teaching center that would help unite the two main ethnic groups in Sri Lanka, the Tamil and Sinhalese, through equal access to education. A project to fund research backing this proposal was granted by the People Helping People Foundation, and the design team, a collaboration between IRGE at the University of Stuttgart and Transsolar, began field research in the village.

The design team conducted a deep analysis of the environment, with a special focus on construction techniques, climatic demands, and cultural practices and norms. They learned that Parangiyamadu has a hot and dry climate with sparsely vegetated, sandy terrain. Homes are connected by a network of paths, with a main clay street that leads from the ocean to a main street inland. Villagers live in small huts between palm trees for shade: some are self-made mud-brick, tin, or palm leaf huts, others are government allotted concrete huts.

Community Engagement

After this research was completed, the design team held a workshop with political and religious representatives, and future users. Through this community engagement and feedback, feat. determined that a learning center would benefit the community the most. The Lanka Learning Center was born – a training and education center for the people.

Design

One of the main goals of the project was to extend influence beyond the walls of the center, becoming a learning tool that could showcase how to create sustainable, affordable homes resistant to the harsh coastal climate. The team worked with local materials and construction techniques to ensure the center was built in a familiar language that encouraged villagers to build their own homes with similar strategies. The site was chosen with the climate in mind: vegetation is scarce, so the Center was placed in a natural clearing surrounded by trees for shading. The building was structurally and technically simple, so the center could be contracted out to locals, and replicated by villagers after its construction. The design is composed of five radial pavilion modules grouped around a large interior courtyard, providing a shielded open space for children to play. Each interior wall extends out to the next module, creating an enclosed pentagon – an urban moment normally only found in city markets in Sri Lanka. The Center's generic modularity intentionally demonstrates how basic building elements can be used to create a variety of built experiences. The building is open and naturally ventilated with metal trussed roofs, a braced concrete skeleton to protect against tsunamis, wall panels made of locally handcrafted bricks, and teak wooden doors. The simple construction ensures an easy upkeep, and the design is intentionally adjustable to accommodate a variety of community needs. The flexible program contains classrooms, dining, workshop and office spaces, and a water tower. Dining halls can become classrooms, classrooms can become workshop spaces, and so on. The ability to personalize the space ensures a higher level of acceptance from the people, as they can adjust it to their needs, and increases its sustainability as it can be adapted in the future for new uses. The building was constructed by local entrepreneurs, craftsmen, and workers.

Post-construction

The center educates and trains people of all ages with a focus on skill-learning, and provides jobs for teachers. The Lanka Learning Center website briefly describes one post-occupancy visit, "One year later, we went back to Parangiyamadu to see how the work at site are advanced. It was a warm welcome and

good feeling to see how things worked out” (lankalearningcenter.com/). The impact and success of the center could be measured by how many people are trained and the number of construction jobs gained after its completion.

Triple Bottom Line

The Lanka Learning Center satisfies the triple bottom line: it empowers and unites users by teaching them construction methods, provides a space to teach, learn, and gather as a community. This program is very sensitive, as it was partially started to help close the divide between the community after the civil war. The choice to make a learning center seems like a thoughtful choice that understands that change takes time, and education can help level the playing field between two groups. I am interested to learn more about these community meetings, and how much their selection was driven by what the community members said.

The design's construction employed local builders and teachers, and trained individuals to get jobs in the future with their new skills. It also liberated the people to be able to provide for themselves, with a more affordable solution.

The project is sustainably built with local materials and passive design strategies, and demonstrates how future homes can be built sustainably to combat the harsh climate. Most importantly, the building itself is a teaching tool that goes beyond the basic expectation of shelter, becoming a dynamic solution to the housing and climate issue Parangiyamadu villagers face.

MA'ANQIAO

Background

An 8.0 earthquake hit China's Sichuan province killing over 70,000 people and leaving millions homeless in May, 2008. Ma'anqiao is one of the poorest villages affected by this natural disaster, and the destruction was devastating – of its 272 homes, only nine stood after the earthquake. The houses were constructed traditionally by the people with rammed-earth, which is liable to collapse with seismic activity when not compacted forcefully enough.

Although people in rural China have lived in earthen homes for thousands of years, this building technique is being lost due to the recent economic boom and rapid urbanization of China. This growth has increased the use of brick and concrete in the country, rendering its thousand-year-old earthen building traditional outdated, and a sign of poverty in the people's eyes. “The fact that most of rammed earth houses were severely damaged during the earthquake made local villagers despair of the aseismic performance of their traditional earth-based building” (Bodart and Evrard, 316). Those who wanted to continue building with earth despite the reasons listed above were unable to, due to the cost, and loss of skills through generations. The collapsed homes were posing an environmental and economic risk: villagers were disposing of the rubble from their homes on farmland, which was harming the the environment and crop production (Bodart and Evrard, 316).

Government solution

The devastation caused by the earthquake caught the attention of the government – it offered 200 euros to help each family build a three-span house with brick and concrete. While these materials are more seismically resistant, they are an unpractical solution for two reasons. First, “Ma’anqiao Village is isolated from outside by a river across which there is only one seasonal single-log bridge. It is impractical for villagers to input the industrial materials as much as their home construction needs” (Bodart and Evrard, 316). Second, regardless of the transportation issue, Ma’anqiao is very poor. Villagers are used to building their own homes, but with new, unfamiliar materials they would need to hire help. Because nearly every home was destroyed, the demand for construction help increased, doubling its cost, and rendering concrete and brick buildings unaffordable for the low-income villagers, even with government aid. Additionally, the government design did not account for the space needed to house animals and store agricultural goods. “In short, not only was their building tradition being completely abandoned, but the peace of their original living being deeply broken” (Bodart and Evrard, 316).

WZQ Solution

Supported by China's Ministry of Housing and Urban Rural Development (MoHURD) and Wu Zhi Qiao (WZQ) (Bridge to China) Charitable Foundation, a group of university students from Hong Kong and Xi'an University of Architecture and Technology from mainland China moved to Ma’anqiao to study the village and find a realistic housing solution that could be applied to the rest of Southwestern China, which faces similar poverty, isolation, and destruction. Their end goal was, “an accessible, ecological, sustainable, healthy and humane way of rebuilding post-quake villages that local residents can afford, learn and pass on” (Domus).

Field research

Students spent weeks living with villagers, observing and interviewing them. I could not find any more information of this.

Design Solution

After weeks of field research, the students concluded that rammed-earth construction was the most attainable, culturally sensitive, sustainable and affordable solution – the construction techniques just needed to be updated to increase its seismic stability: metal ramming tools replaced traditional wooden ones, and the home design was improved. Most importantly, the students determined that for a lasting solution, the government should not build for them with foreign materials, rather the people should be taught how to build their own homes with local materials. This empowers the people and creates a systemic solution, rather than having the people rely on outside help. A three step action plan was implemented: 1) Prototype-based demonstration and training to local villagers 2) Local extension and home rebuilding 3) Technique promoting and regional training extension (see Fig. 3 below).

Fig. 3: *Methodology framework of the demonstration project.*

To increase seismic resistance in the homes, the design was updated in three ways:

1. “Capping the span, stores and floor height of the local rammed-earth house to reach a reasonable shape coefficient for seismic resistance;

2. Involvement of timber-made structural columns in wall corners and bamboo-made ring beams on both top and bottom of earth walls
3. improving structural measures for joints between walls, roofs and walls, and foundations to further enhance the structural integrity” (Bodart + Evrard, 317).

Fig. 4: *Diagram of improved home construction.*

Participation

A demonstration home was built in one month for an elderly couple – at least one member of every family in the village helped construct the home, which served as a workshop for how to build their own. Only two months after the earthquake, all 33 families had started constructing their homes. This solution cost one tenth of the government’s initial proposal, and the homes are 90 percent composed of recycled materials from damaged buildings and natural products in the village.

Civic Center

Although the villagers were beginning to regain their trust in rammed earth through the construction of their new homes, they still saw it as outdated. To show that rammed earth can succeed in modern applications, the design team implemented a two-story, curvilinear design for a civic center – a form the villagers thought impossible to achieve with their ancient practice (Domus).

The center was built with the help of villagers, and the process served as additional construction workshops. The civic center currently functions as a demonstration facility for training workshops for craftsmen throughout the region, and is also a health center, a kindergarten, a shop, a library, an exhibition space and a dormitory. The building’s modern application of rammed earth has convinced villagers to see their traditional earthen building as a diverse, traditional and modern building material. The Center has won numerous awards: the UNESCO Asia Pacific Heritage Award 2011 – Jury Commendation for Innovation, the 12th National Challenge Cup – The Best Project, the Green Building Award 2010 – New Buildings – Asia Pacific, the Institutional/Community Project Grand Award, and the Design for Asia Award 2010 – Merit Award.

DIY Construction Manual

In addition to the new homes and civic center, a DIY construction manual has been produced and promoted through similar rural areas of Western China to spread the knowledge of how villagers can safely rebuild their homes using rammed earth.

Due to the success of the Ma’anqiao housing project, the WZQ team of Xi’an University of Architecture and Technology, and the International Centre for Earth Construction (CRATerre) was invited by MoHURD to jointly launch the “Modern Earth House Rebuild and Sustainable Development Research Demonstration Project” in Huining County, Gansu since May 2011.

Conclusion

Both projects exemplify how Public Interest Design projects should perform. Solutions should be systemic, local, and interactive. Instead of treating the people as a charity case and relying on government help and foreign materials, both design teams empowered the people by finding local, affordable solutions through deep investigation of place, culture, and community. They satisfied the triple bottom line design imperative of social, economic, and environmental justice. Both solutions were attainable, culturally sensitive, sustainable, and affordable – qualities that can be used as measurements of success. Participation could have been stronger in the design processes. It seems that both design teams involved the community during construction, but neglected them during the design phase.

Works Cited

Images and Diagrams

Fig. 1: Vetter, Barbara, and Vincent Heiland. *Aerial perspective of Lanka Learning Center*. Parangiyamadu, Sri Lanka.

Fig. 2: Mu, Jun, et al. *Villagers reconstructing homes*. Ma'Anqiao.

Fig. 3: *Methodology framework of the demonstration project*. Bodart, Magali, and Arnaud Evrard. *Architecture & Sustainable Development. 27th International Conference on Passive and Low Energy Architecture. Vol. 2, p 317*. Presses Universitaires, 2011. Redrawn by Bergen Holloway.

Fig. 4: *Diagram of improved home construction*. Bodart, Magali, and Arnaud Evrard. *Architecture & Sustainable Development. 27th International Conference on Passive and Low Energy Architecture. Vol. 2, p 317*. Presses Universitaires, 2011.

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https://www.world-habitat.org/wp-content/uploads/2019/11/Building-with-EARTH_China_FULL-project-summary.pdf



PUBLIC INTEREST DESIGN INCUBATOR STUDIO

ARC 401-002, ARC 503-002

SYLLABUS: 8.16.2021

Fall 2021

6 Credit Hours

Course Objectives/Goals: The goal of the course is to engage the public to understand challenges, develop partners, and create design responses.

Course Description:

The Public Interest Design Incubator will apply methods of how design can address the critical issues faced by communities. Students will be actively incubate a real community-based project by engaging with a community to understand challenges, developing a program and proposing design solutions. Field trips and site visits are not required but are important.

Learning Outcomes:

1. Research the need of a community and then analyze the potential social, economic, and environmental impact of a design project.
2. Use an iterative process to design with input from experts and community partners.
3. Leverage stakeholder's assets to address project challenges through available and appropriate resources.
4. Develop a building through programming and schematic stages.
5. Learn important architectural elements of health care design and disaster recovery.

Course Structure: Studio-based course, with assignments, critiques, interim reviews, mid-term and final reviews. Occasional site visits and field trips required.

Course Policies: See NCSU policies section below. Students are required to submit digital files of all their project work by the end of the semester to receive a final grade.

Instructor:

Associate Professor Bryan Bell

Office: Brooks 305C

Phone: (919) 637-2804

Email: bbell@ncsu.edu

Office Hours: To be determined by consensus of students

Course Meetings: Course meets Monday/Wednesday/Friday, 1:30 to 5:30 in Brooks Hall 108 or as directed.

Course Materials:

Readings are available on digital reserve at the College of Design Library or in course Google drive Reading folder. Readings for this course have been selected for their usefulness in this course and as a future reference. Readings will be taken from four texts which are available but not required.

1. *Designing for Rural Health: Lessons from Pender County*, 8/2021, (Public Interest Design Studio and Partners)
 2. *Good Deeds Good Design: Community Service through Architecture* (Bell, Princeton Architectural Press) Available at Amazon.com, Princeton Architectural Press, or <http://site.ebrary.com/lib/papress--pub/docDetail.action?docID=10182747>. On reserve for 2-hour checkout at CoD library. Price: \$30 and available for free on site above
 3. *Expanding Architecture: Design as Activism* (Bell and Wakeford, Metropolis Books). Available at Amazon.com or Distinguished Art Publications. On reserve for 2-hour checkout at CoD library. Price: \$34.95
 4. *Public Interest Design Practice Guidebook: Seed Methodology, Case Studies, and Critical Issues*; Lisa Abendroth and Bryan Bell Co-Editors, Routledge Press, 2015. Price: \$74.95
 5. *Public Interest Design Education Guidebook: Curricula, Strategies, and SEED Academic Case Studies*, Lisa Abendroth and Bryan Bell Co-Editors, Routledge Press, 2018. Price: \$74.95
- Additional articles will be assigned and provided during course as needed.

Further Suggested Readings:

Further readings are available on digital course reserves. A bibliography of related readings is available in Appendix of *Public Interest Design Practice Guidebook*.

Prerequisites: None

Co-requisites: None

General Education Program (GEP) Information

GEP Category: This course does not fulfill a General Education Program category

GEP Co-requisite: This course does not fulfill a General Education Program co-requisite.

Transportation and Site Visits: Visit to local offices are part of the course and while not required, are important. One site visit to Pender County will be planned and is also an important part of the class. Travel, lodging, and food are provided through the generosity of the course sponsor, LS3P. Additionally, non-scheduled class time for field trips and additional site visits is highly encouraged for this class. Organized carpooling for two or more students for studio trips is encouraged and driver will be compensated for mileage.

Assignments, Projects and Criteria:

The following assignments, projects and criteria will together form the basis of the grade for the course:

Course Collaboration: 10%

1. Ability to collaborate with partners, the studio as a whole, and the community. Contributions to class and community discussions: 5% of course grade.
2. Demonstration of reading comprehension and depth of research, including Reading Reports: 5% of course grade

Case Study, Stakeholder Identification, Asset Mapping, Site Selection, Programming: 30%

3. Case Study research and class presentation: 5%
4. Identifying community challenges and assets: 5% of course grade
5. Site selection: 5% of course grade

6. Stakeholders identification and engagement: 5% of course grade
7. Defining vision of success; Performance measures and building programming: 10% of course grade

Design Project 60%

8. First design iterations: 5% of course grade
9. Mid-review: 15% of course grade
10. Design development through stakeholder participation: 5% of course grade
11. Final review with design project represented in drawings and model: 30% of course grade
12. Final design iteration and process documentation including final personal learning reflection (qualitative) and self-assessment (quantitative survey): 5% of course grade

Grading:

The final semester grade is based on the total number of points scored based on a 100-point scale, and is determined by the following scale:

- A Excellent: Performance is in all or most aspects superior to what can be typically expected on this level. Products are exceptional in conception, development, and execution.
- B Good: Performance is typical for this level. No major problems with effort, productivity, attitude, participation, skills, and overall quality of design projects.
- C Fair: Performance falls somewhat short of expectations in some respects, in spite of effort; some problems with either productivity or skills or overall quality of projects.
- D Poor: Performance falls seriously short in several aspects, including attitude and effort.
- F Unacceptable: poor participation, poor attitude, poor effort, poor skills, poor products.

Plus/Minus Grading will be used. It will be reflected in the calculation of your GPA as 1/3 of a grade point, e.g.: A- is 3.667, B+ is 3.333, etc.

Grades will be posted on the class Moodle page. Assignments must be submitted through Moodle at the beginning of the class when due.

Note that active class participation is part of your grade – see “Rubrics: and “Expectations” sections of this syllabus.

Readings:

All reading will be available through digital reserves <https://reserves.lib.ncsu.edu/> or through class Google Folder. <https://drive.google.com/drive/u/0/folders/12T-srzPqERkzT1znav7YBAmORlaNjyTa>

Rubrics:

Grading rubrics for writing and class participation are provided through the class Google Drive folder.

Expectations:

Active engagement in class discussions is critical to learning through the case study method and for personalizing the value of the subject. Class participation will count towards course grade.

Readings assigned are to be completed by next class unless otherwise noted. Knowledge of reading material will inform class discussions and evidence of completing the readings will contribute to class participation grade. Written discussion points and learning highlights “take-aways” from readings will be assigned.

Written assignments will be graded on quality of research, depth of thought, value of content, clarity of expression and concision.

All assignments are due at the beginning of the identified class session. Work submitted up to two weeks late, until the final review, will be reviewed by the instructor and be graded one full grade lower. Work submitted after two weeks late will receive a failing grade.

A course portfolio (digital and hard copy) documenting all work completed during the semester is due during final exam period.

Attendance is expected for every class and every scheduled session, where attendance will be taken. Please refer to: <https://policies.ncsu.edu/regulation/reg-02-20-03-attendance-regulations/> for an understanding of excused absences. To qualify for an excused absence, you must present an official note explaining the absence, either from a doctor, university official, or other appropriate authority. Failure to attend 2 class sessions due to unexcused absence will result in a lowering of your grade by one letter. Failure to attend 3 of the sessions for an unexcused absence will result in a lowering of the grade by two letters. Failure to attend 4 or more of the sessions due to unexcused absence will result in a failing grade.

Participation in class discussion is a key learning and method of the class. Sharing ideas and opinions from readings, presentations are also a meaningful way to contribute to your fellow student's learning experience. Every student is expected to contribute in each class. A 5% portion of your final course grade is dedicated to participation in class sessions.

NCSU Policies:

This course adheres to all academic and conduct policies established by NC State University, the College of Design and the School of Architecture. Refer to the Code of Student Conduct: <http://policies.ncsu.edu/policy/pol-11-35-01> "Students are responsible for reviewing the PRRs which pertain to their course rights and responsibilities. These include: <http://policies.ncsu.edu/policy/pol-04-25-05> (Equal Opportunity and Non-Discrimination Policy Statement), <http://oied.ncsu.edu/oied/policies.php> (Office for Institutional Equity and Diversity), <http://policies.ncsu.edu/policy/pol-11-35-01> (Code of Student Conduct), and <http://policies.ncsu.edu/regulation/reg-02-50-03> (Grade Point Average)."

Auditing Policy:

Information about and requirements for auditing a course can be found at <http://policies.ncsu.edu/regulation/reg-02-20-04>

Diversity, Equity and Inclusion Statement:

Architecture is made to serve people and as a part of the global community we recognize diversity within our school as well as the self-expression of our students. The School of Architecture values how diversity cultivates a rich learning environment. It is a fundamental principle that each individual has the right to learn without fear of character deprecation or retribution for personal opinions. Students and professors must expect and help foster a learning environment of trust and respect. An individual must never suffer in the learning environments because of race, religion, gender, sexual orientation, ethnicity or national origin. The School of Architecture seeks to build a positive and encouraging community that promotes diversity, equity, inclusion, and justice.

Non-Discrimination Policy:

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or http://www.ncsu.edu/equal_op/. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Americans with Disabilities Act (ADA) Policy Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.1) Information can be found at http://www2.ncsu.edu/ncsu/stud_affairs/counseling_center/dss/.

Academic Integrity Statement:

Strict standards of academic honesty will be enforced according to the University policy on academic integrity. Any material from a previous or other course that is re-used or expanded in this class must be identified to the instructor. It is expected that a student's signature on any test or assignment means that you have neither given nor received unauthorized aid. Consult the following website for further details: <http://policies.ncsu.edu/policy/pol-11-35-01>.

Course Schedule: To be posted on Moodle and in Studio

Note: Unlike pure school-based studios, this is a real project with real opportunities and real challenges, and will therefore not always conform to a predetermined schedule. The course schedule, as well as specific assignments, are subject to change and require corresponding student flexibility. This flexibility also pertains to the impact and changes due to COVID 19. Students will be notified of any changes by email.

Mental Health Services: Your health is of utmost importance. Please become familiar with the resources available from the University on this site and speak with me about any needs you may have: <https://prevention.dasa.ncsu.edu/>.

Critical Security Incident: Your safety is also of utmost importance. Please know that an after-dark ride home is always available to you through the campus police at 919-515-3000. Please review the "critical incident video and training on this link: <https://police.ehps.ncsu.edu/support-services/training-2/active-shooter-survival-training/>.

Health of Students

The mental health, physical health, well-being and the positive learning experience of students are all top priorities for the studio. Due to the COVID-19 pandemic, public health measures continue to be implemented across campus. Students should stay current with these practices and expectations through the [Protect the Pack](https://www.ncsu.edu/coronavirus/) website (<https://www.ncsu.edu/coronavirus/>). The sections below provide expectations and conduct related to COVID-19 issues.

Health and Participation in Class

We are most concerned about your health and the health of your classmates and instructors/TAs.

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, you should not attend any hybrid or face-to-face (F2F) classes and work with your instructor on any adjustments necessary; also follow other university guidelines, including self reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to a F2F class or activity.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to make alternative plans, as necessary.

- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to [take care of themselves](#) and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center ([NCSU Counseling Center](#))
- Student Health Services ([Health Services | Student](#))
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: ([Share a Concern](#)).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program ([Pack Essentials](#)).

Community Standards related to COVID-19

We are all responsible for protecting ourselves and our community. Please see the [community standards](#) (which have been updated for 2021) and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 [RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules](#)

Course Expectations Related to COVID-19:

- **Face Coverings:** All members of the NC State academic community are expected to follow all university policies and guidelines, including the [Personal Safety Rule](#) and [community standards](#), for the use of face coverings. Face coverings are required in instructional spaces. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides.
- **Course Attendance:** NC State attendance policies can be found at: [REG 02.20.03 – Attendance Regulations – Policies, Regulations & Rules](#). Please refer to the course's attendance, absence, and deadline policies for additional details. If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.
- **Technology Requirements:** This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).

Course Delivery Changes Related to COVID-19

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course could change accordingly, including from in-person to remote. Regardless of the delivery method, we will strive to provide a high-quality learning experience.

NO LONGER AVAILABLE - Grading/Scheduling Changing Options Related to COVID-19

Two policies, enhanced S/U Grading Option and Late Drop, put in place at the beginning of the COVID-19 pandemic have been discontinued.

In some cases, an option may be to request an "incomplete" in the course. If you are experiencing difficult or extenuating circumstances, you should discuss possible options with your instructor and your academic advisor.

Need Help?

If you find yourself in a place where you need help, academically or otherwise, please review these [Step-by-Step Help Topics](#).

Other Important Resources

- **Keep Learning:** [Keep Learning](#)
- **Protect the Pack FAQs:** [Frequently Asked Questions | Protect the Pack](#)
- **NC State Protect the Pack Resources for Students:** [Resources for Students | Protect the Pack](#)
- **Academic Success Center** (tutoring, drop in advising, career and wellness advising): [Academic Success Center](#).
- **NC State Keep Learning, tips for students opting to take courses remotely:** [Keep Learning Tips for Remote Learning](#)
- **Introduction to Zoom for students:** <https://youtu.be/5LbPzzPbYEw>
- **Learning with Moodle, a student's guide to using Moodle:** <https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226>

NC State Libraries [Technology Lending Program](#)

Health and Participation in Class

We are most concerned about your health and the health of your classmates and instructors/TAs.

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, please work with your instructor on health accommodations and follow other university guidelines, including self reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to class.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to discuss the situation and make alternative plans, as necessary.
- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor for the appropriate process to make a COVID-19 request. If you need assistance in requesting special consideration for remote learning, you can fill out this [form](#). It is not required if you are able to work out a situation with your professor, but it provides you with an opportunity to work with an independent unit to get consideration, should you need or want it.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to [take care of themselves](#) and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center ([NCSU Counseling Center](#))
- Health Center ([Health Services | Student](#))
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: ([Share a Concern](#)).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program ([Pack Essentials](#)).

Community Standards related to COVID-19

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Course Expectations Related to COVID-19:

- **Face Coverings:** All members of the NC State academic community are required to follow all university guidelines for personal safety with face coverings, physical distancing, and sanitation. Face coverings are required in class and in all NC State buildings. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides. In addition, students are responsible for keeping their course/work area clean. Please follow the cleaning guidelines described by the university.
- **Course Attendance:** NC State attendance policies can be found at: [REG 02.20.03 – Attendance Regulations – Policies, Regulations & Rules](#). Please refer to the course's attendance, absence, and deadline policies for additional details. If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.
- **Course Meeting Schedule:** Your course might not have a traditional meeting schedule in Fall 2020. Be sure to pay attention to any updates to the course schedule as the information in this syllabus may have changed. Please discuss any questions you have with the instructor.
- **Classroom Seating:** To support efficient, effective contact tracing, please sit in the same seat when possible and take note of who is sitting around you; instructors may also assign seats for this purpose.
- **Technology Requirements:** This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).
- Additional items you may consider adding a few items to your toolkit: a lightweight folding chair, a hat, insect repellent, and sunscreen. Meeting and working outside may be more common this semester.

Course Delivery Changes Related to COVID-19

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course may need to change accordingly, including from in-person to online. Regardless of the delivery method, we will strive to provide a high-quality learning experience.

Grading/Scheduling Changing Options Related to COVID-19

If the delivery mode has a negative impact on your academic performance in this course, the university has provided tools to potentially reduce the impact:

- **Enhanced S/U Grading Option:** [Enhanced Satisfactory/ Unsatisfactory Grading Option](#)
- **Late Drop:** [Enhanced Late Drop Option](#)

In some cases, another option may be to request an incomplete in the course. Before using any of these tools, discuss the options with your instructor and your academic advisor. Be aware that if you use the enhanced S/U, you will still need to complete the course and receive at least a C- to pass the course.

Other Important Resources

- **Keep Learning:** [Keep Learning](#)

- **Protect the Pack FAQs:** [Frequently Asked Questions | Protect the Pack](#)
- **NC State Protect the Pack Resources for Students:** [Resources for Students | Protect the Pack](#)
- **NC State Keep Learning, tips for students opting to take courses remotely:**
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- **Introduction to Zoom for students:**
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- **Learning with Moodle, a student's guide to using Moodle:**
<https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226>
- **NC State Libraries** [Technology Lending Program](#)

Rocky Point Community Health Center



Health

Preventative Care

+

Community

Community Resilience

+

Disaster Resilience

Disaster + Emergency Preparedness

Rocky Point Community Health Center

Community Challenges:

- Limited access to specialists + preventative services
- Mental health services
- Lack of education regarding exercise, nutrition, and weight
- Insufficient access to healthy foods leading to food insecurity
- Safe accessible outdoor recreation
- Distrust in the community from the lack of resources causing feelings of isolation
- Positive teen activities
- Internet access
- Public transportation
- Disaster susceptibility (Flooding + Hurricanes)

Stakeholder Guiding Statement:



“In that area, there is need for more **specialists** - some of the basic ones. Pender County essentially has no specialists”.

Ruth Glaser, Pender Memorial Hospital President, August 2020



“It would be great to have a food pharmacy or community garden where people can go get healthy foods and learn how to cook them”.

Angela Livingwood, Pharmacy Manager at Pender Memorial Hospital, August 2020



“Generally there just isn't a lot of outlets in Pender leading to **isolation and suicide**. We don't have a lot of facilities so you have to have **transportation** to get the treatment you need in another county.”

Kerrie B. Timmerman, Pender County Health Department, September 2020



“The lack of **internet access** within the county makes it impossible to work from home, do homework and access healthcare.”

Susan Bullers, Pender County Resident, August 2020

Design Intervention

Multi-use community and health center that promotes overall **health + wellness** through **preventative** care measures to create trust, health, resilience, and community.

The health center responds to the need of **specialists** and **mental health** services in the area as well as being a destination for **mobile medical clinics** to dock. The community center aims to prevent, treat, and educate community members about **exercise and nutrition** to create a healthier community through preventative programs such as **community gardening, cooking classes**, and **safe outdoor recreation**. Alternatively, these spaces will be highly flexible to transition for **disaster recovery** efforts in the event of an emergency.

The facility's partnership with PAS-TRANS will better connect the unincorporated parts of Pender County by picking up community members who lack a means of **transportation** to provide **equal access to medical services** and **community placemaking**.



"The lack of transportation is a HUGE barrier to folks seeking care. But the other is the fact that almost no specialists are in Pender County. This wholistic approach would benefit adults and children as well as the patients and their supports."

Ruth Glaser, Pender Memorial Hospital President, October 2020

Complete Vision of Success

.....to **respond** to the existing need for specialists, mental health services and disaster preparedness

.....to provide **preventative** care to educate the community on health and wellness care

.....to **connect** residents with transportation and resources to create community ties

.....to **create** trust, health, resilience, and community

DAY TO DAY FUNCTIONS

Access to Specialty Care + Mental Health Services

Internet Access + Resources

Safe Place for Recreation

Nutrition + Wellness Education

Community Placemaking

(opportunities for new programming, events + revenue)

DISASTER RESPONSE

Shelter Options

Internet Access + Resources

Support

Fema Center

Emergency Food Distribution Center

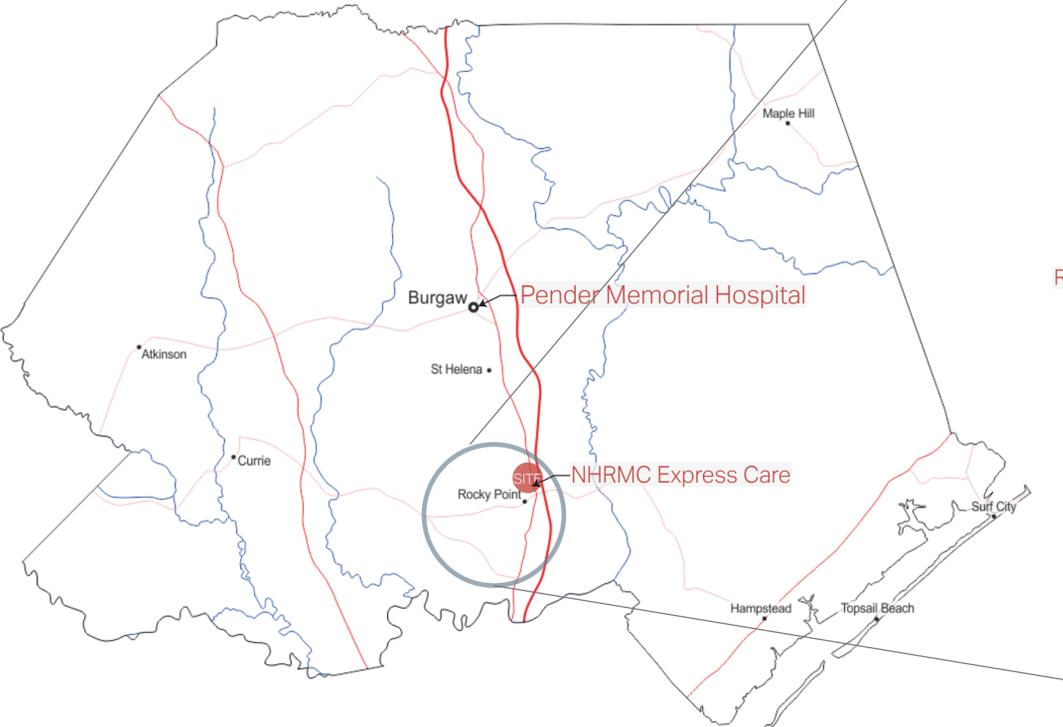
Site Selection - Rocky Point, N.C. | A Town With No Center



Rocky Point, North Carolina

Population ~ 1,800

Centralized between the divided coastal and rural regions of Pender County



● Site ● Churches



Site



Sonny Rowe Farm Market



NHRMC Express Care

"Rocky Point just isn't a town; there is **no center**. People like to drive down a strip with shops and restaurants, but here there are only **dollar stores** and **fast food** chains. Rocky Point feels more like a **truck stop** than a community." - Steve, Airbnb Host in Hampstead

Site Analysis



SITE ACCESS

- ① Access off of 117

SITE ENVIRONMENT

- ② Overgrown Flat Field
- ③ Tree Line

SITE OPPORTUNITIES

- ④ Connection + Hopefull Relationship with NHRMC Express Care
- ⑤ Connection + Hopefull Relationship with Farmers Market
- ⑥ Proximity to + Hopefull growth of "Central Rocky Point"

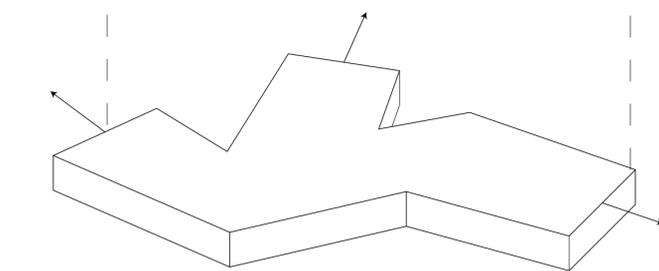
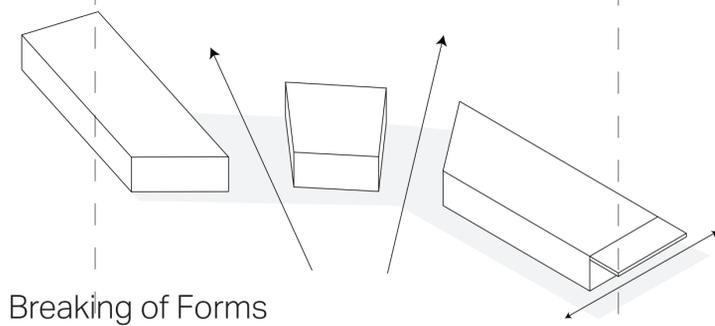
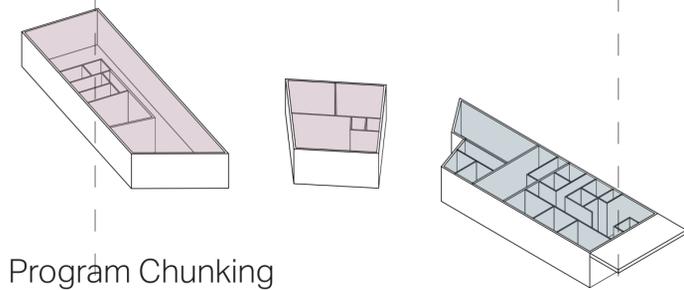
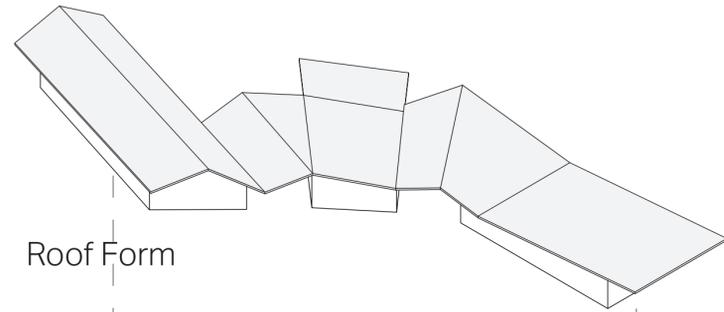
SITE CONSTRAINTS

- ⑦ Limited views + access onto site from 117 due to narrow front and location behind NHRMC Express Care

Scale: 1/128" = 1'-0"



Building Evolution + Programing

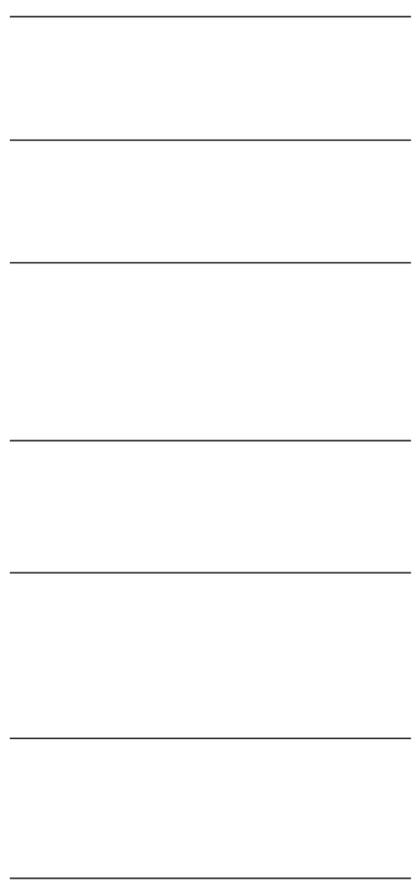


Lobby/ Patient Waiting	800 SQFT	SERVES 15/20
Administrative	500 SQFT	SERVES 10
24/7 Pharmacy	350 SQFT	SERVES 5
Lab	200 SQFT	SERVES 3
Specialty Care: Patient Exam Rooms (4x)	120 SQFT	SERVES ONE AT A TIME
Mental Health - Non Critical: Councler Rooms (2x) Studio Space/ Group Counseling	120 SQFT 850 SQFT	SERVES ONE AT A TIME SERVES 25
Clinic Space: Flex Clinic Space	350 SQFT	SERVES 5
Telehealth Meeting Room	50 SQFT	SERVES ONE AT A TIME
PAS-TRANS vans Parking Dropoff		
Mobile Unit Docking Hub		
Kitchen	800 SQFT	SERVES 20
Cafe + Market	1,500 SQFT	SERVES 80
Resource + Education Hub Media Center Classroom (2x)	800 SQFT 600 SQFT	SERVES 20 SERVES 15
Community Flex Space	2,000 SQFT	SERVES 120

Program Uses + Access

Health

- Mobile Unit Docking Hub:**
Mobile Clinic station and docking hub
- PAS-TRANS transport vans:**
Transportation to medical services
- Community Room:**
Space for vaccine clinics, child health, and family planning. Preventative care/educational workshops.
- Specialty Care:**
Rotating specialist patient rooms
- Mental Health:**
Counselor, resources and flex space for studio space and group meeting
- Kitchen + Market**
Preventative care/education cooking classes
- Resource + Education Hub**
Telehealth medicine appointments for residents who do not have internet access



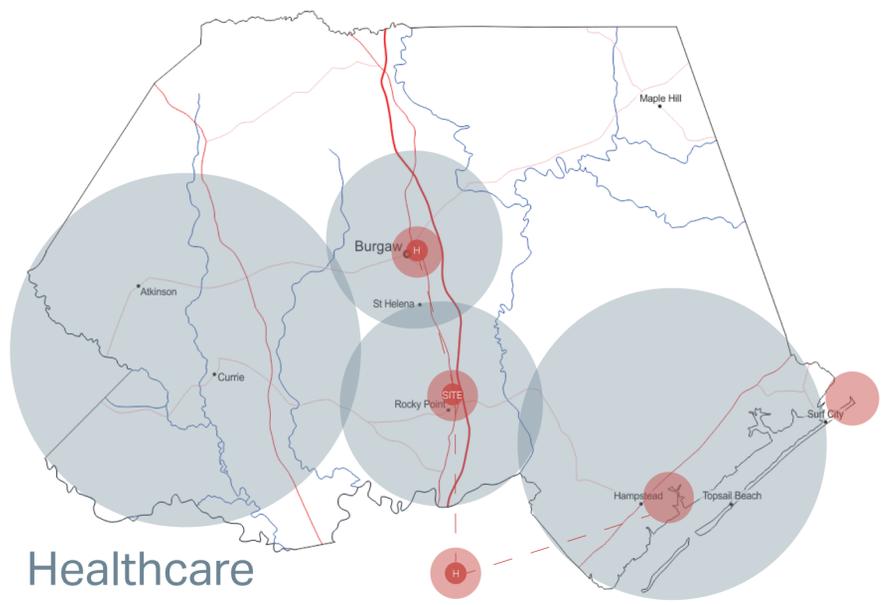
Community

- x
- Transportation to community events + programs
- Community events, fitness group classes, workshop space for 4H and other programs, etc.
- x
- The use of outdoor + nature spaces to promote mental health wellness and education
- Cooking + nutritional education classes, market/ vender space with local produce and goods
- Wifi, computers, library, creative classes, flexible workshop spaces, etc.

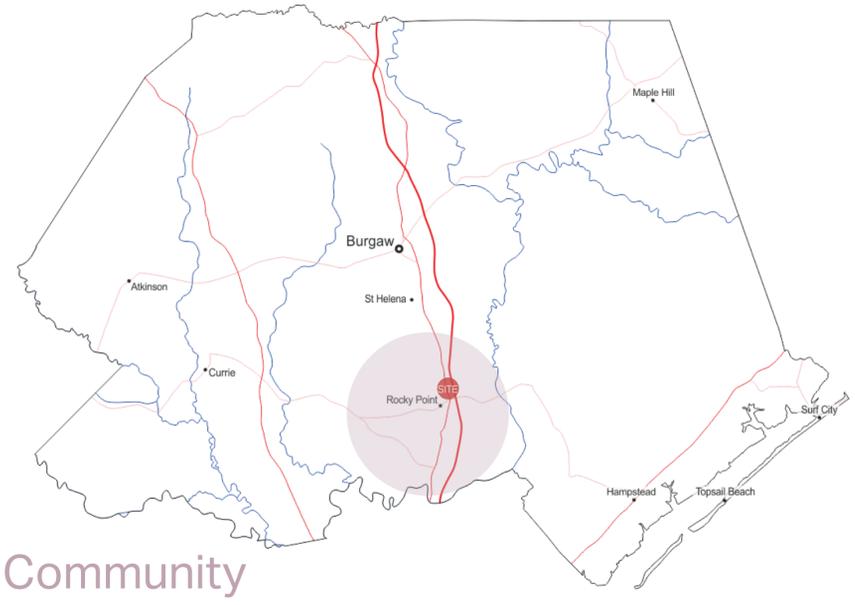


Disaster Resilience

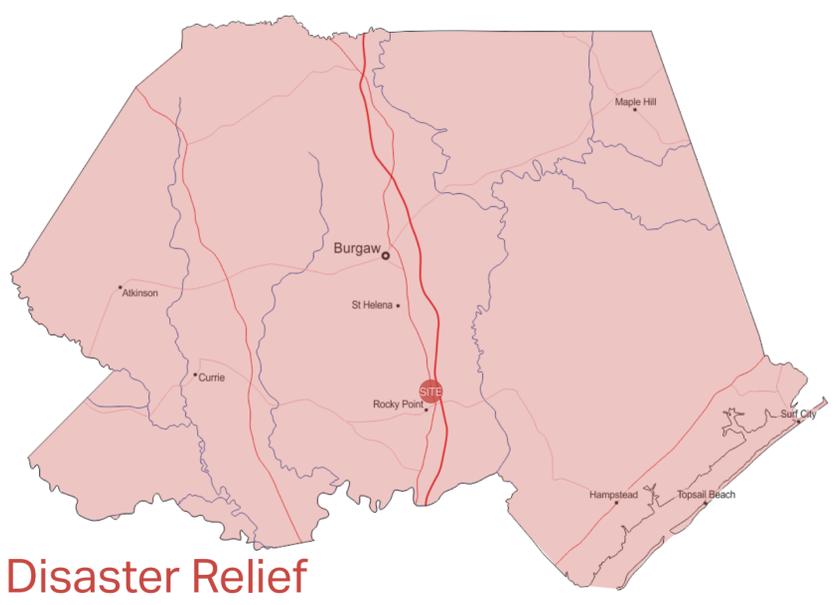
- Distribution Center
- Disaster Victim Transportation/ Pick up
- Fema Station + Shelter + Storage for First Responders
- Emergency Care Rooms
- Provide services and counseling for those suffering with loss or anxiety from the natural disaster
- Gather, support, mass feed
- Provide wifi for resources in times of distress



Healthcare

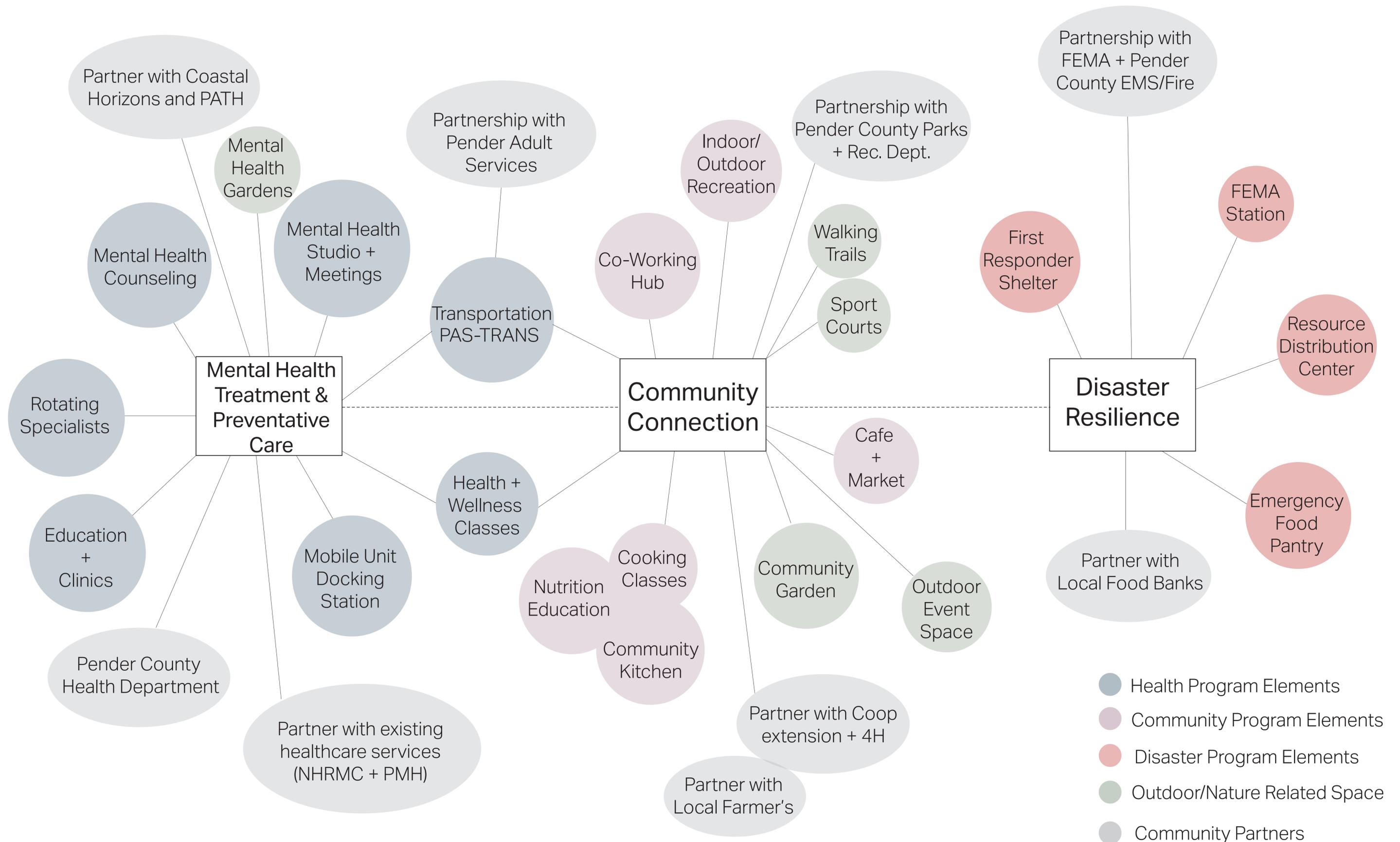


Community

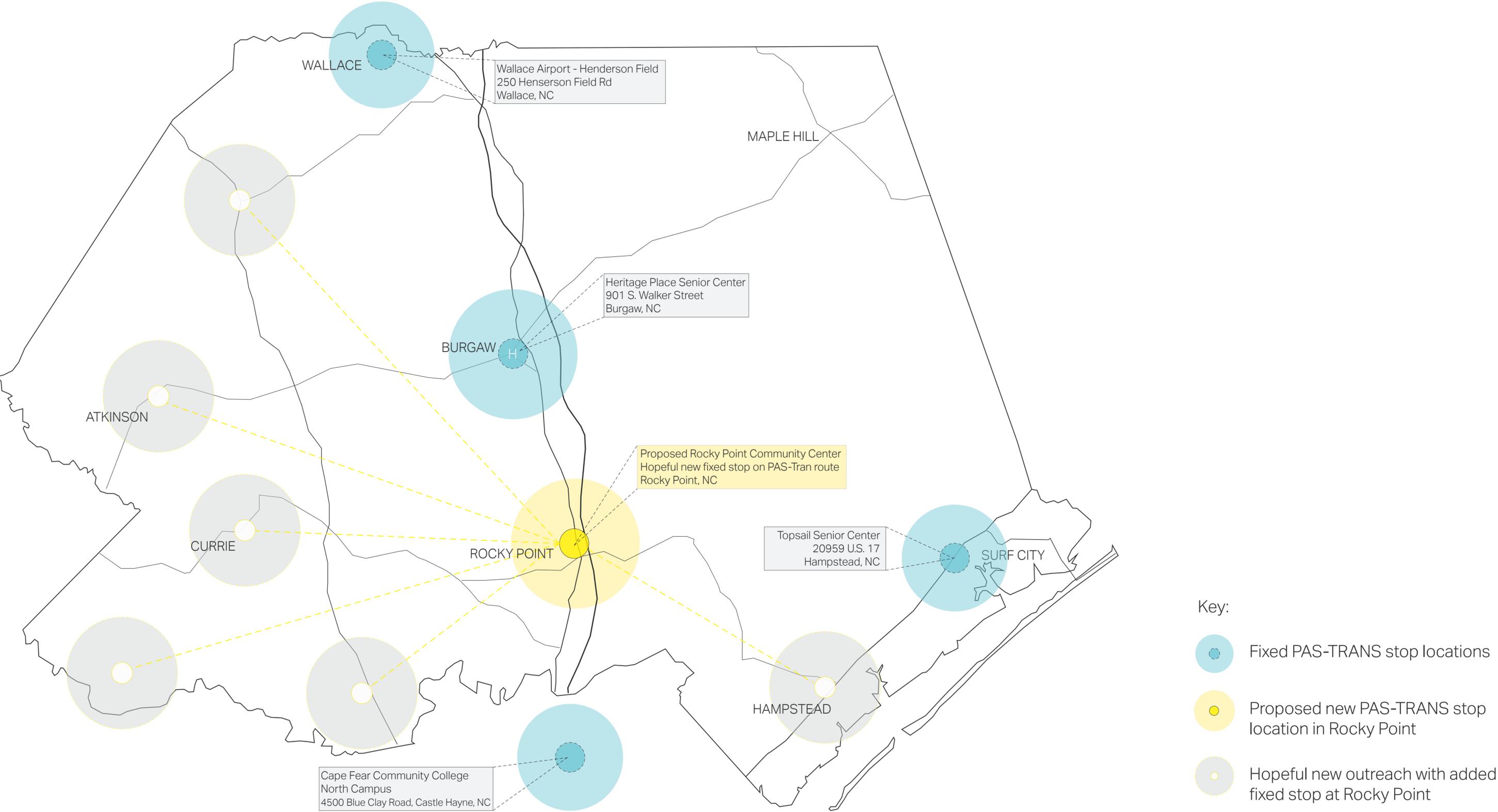


Disaster Relief

Vision of Success Ecosystem



Partnership with PAS-TRAN - Mobile Van Outreach

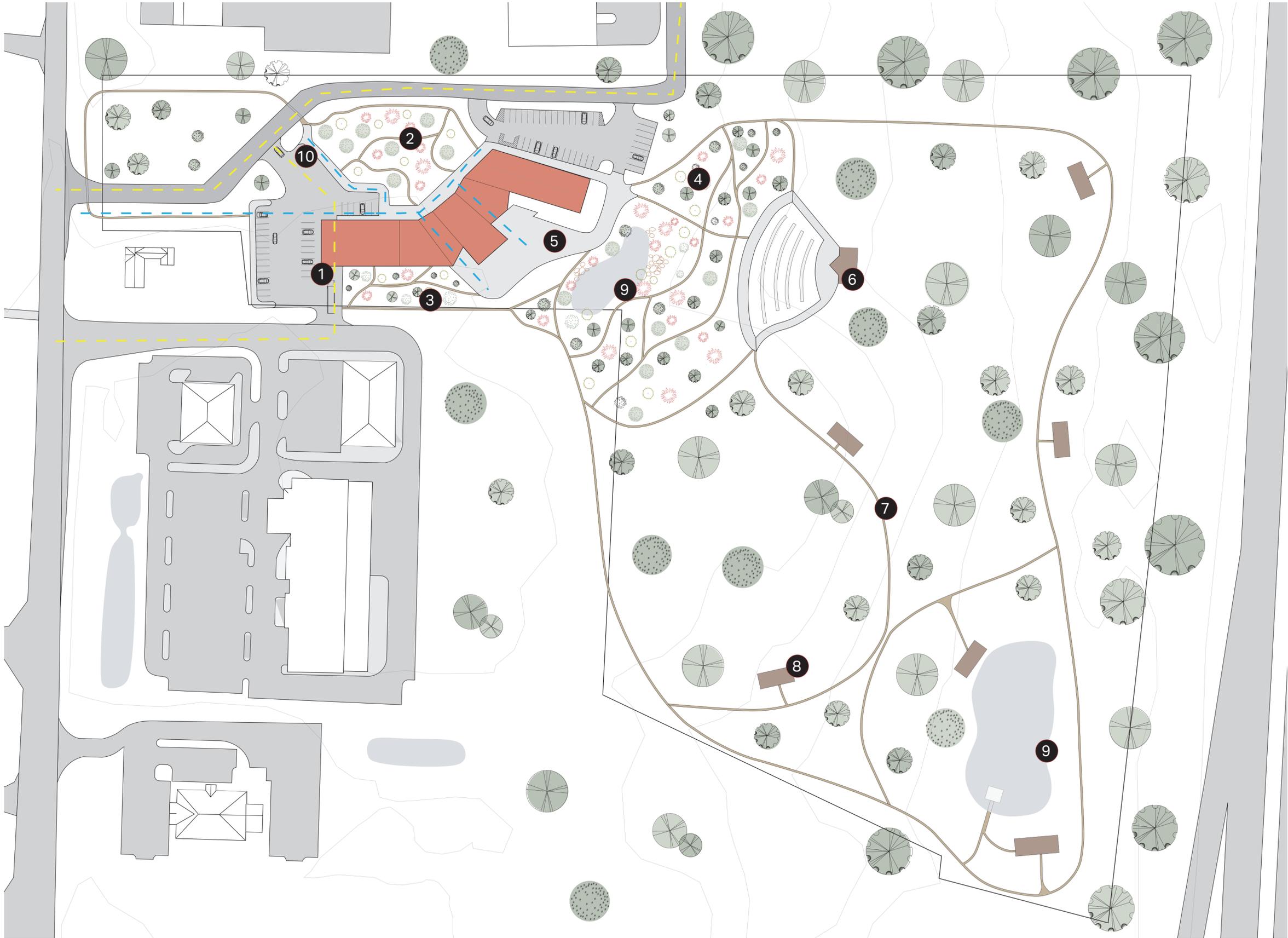


Site Plan

- Pedestrian Circulation
- Vehicular Circulation

Exterior Programing

- 1. Mobile Unit Docking Station
- 2. Community Garden
- 3. Mental Health Garden
- 4. Rain + Butterfly Garden
- 5. Event Space
- 6. Ampetheater
- 7. Walking + Biking Nature Trails
- 8. Pavillions
- 9. Retention Ponds
- 10. PAS TRANS Drop Off Location



Scale: 1/100" = 1'-0"



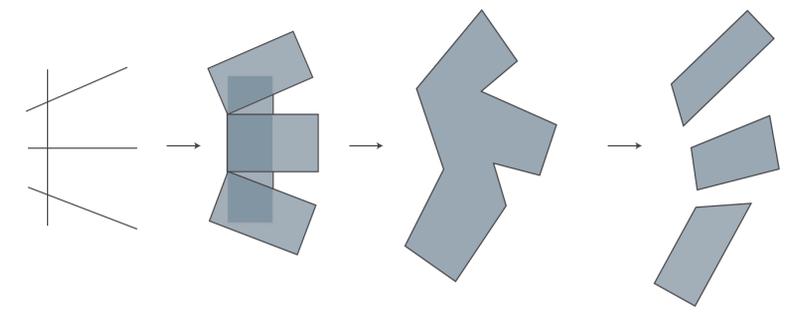


Community Garden



Retention Pond + Rain and Butterfly Garden

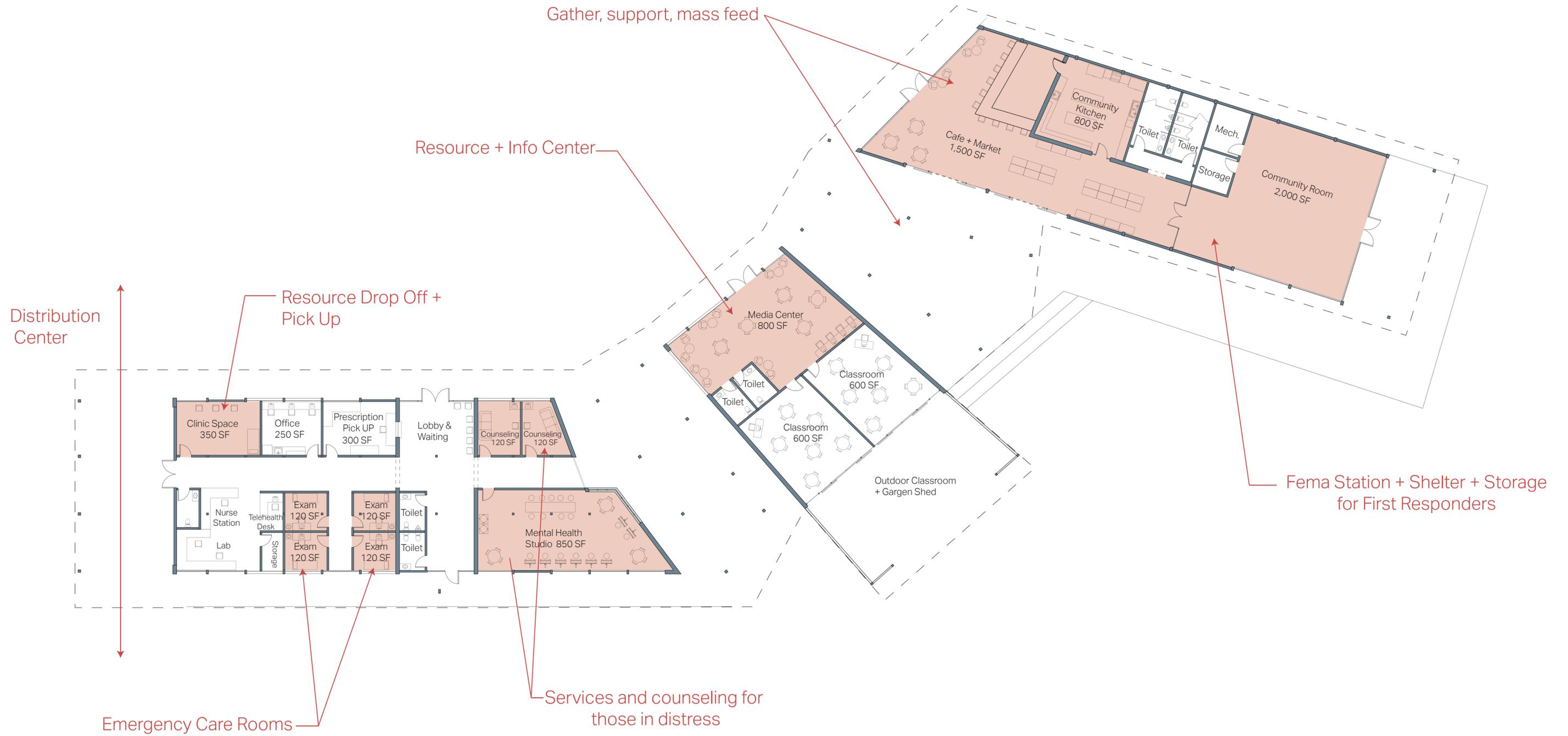
Floor Plan



Scale: 1/16" = 1'-0"



Disaster Resilience Plan



Scale: 1/16" = 1'-0"



Elevations + Key Views



Cafe + Market



Media Center



Pass Through



North Elevation
Scale: 1/16" = 1'

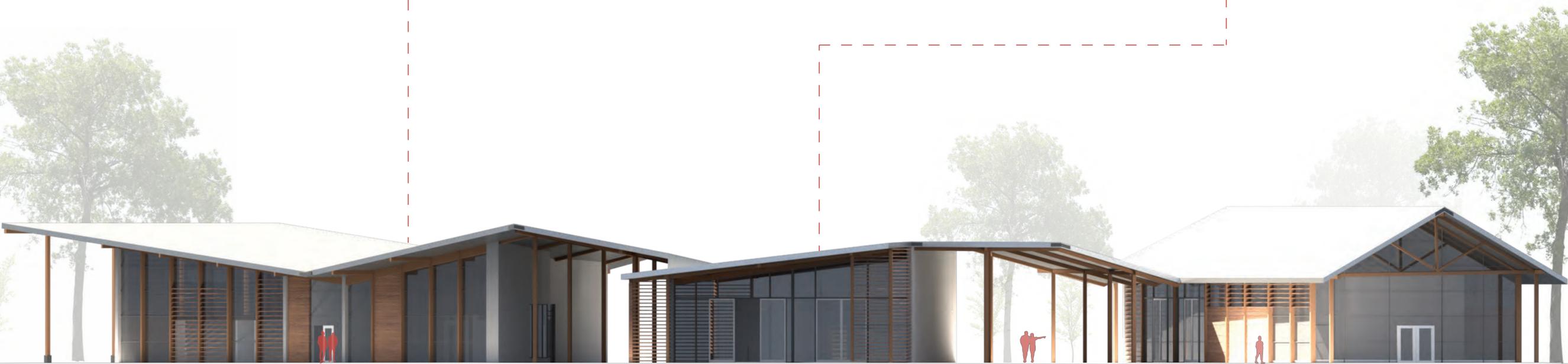
Elevations + Key Views



Mental Health Garden



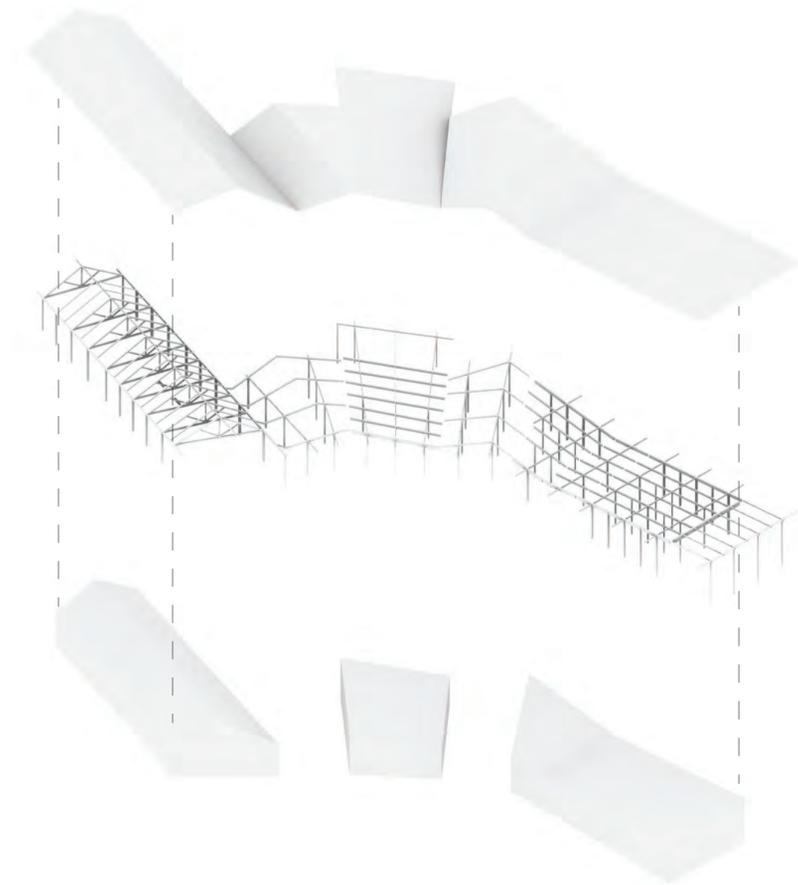
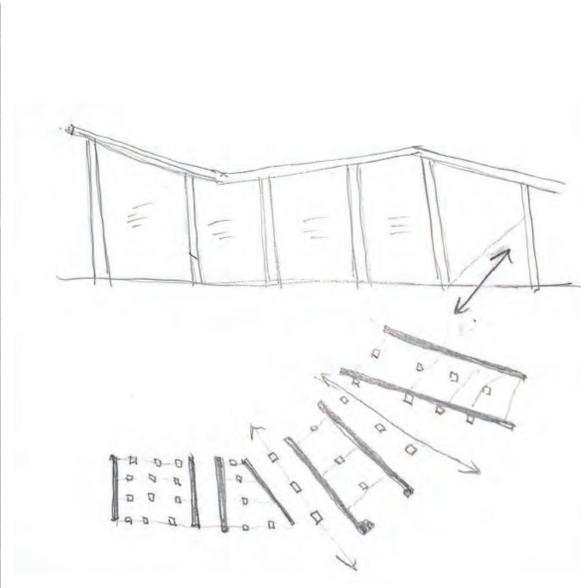
Outdoor Glassroom + Garden Shed



South Elevation
Scale: 1/16" = 1'

Material and Structure Concepts

Inspiration



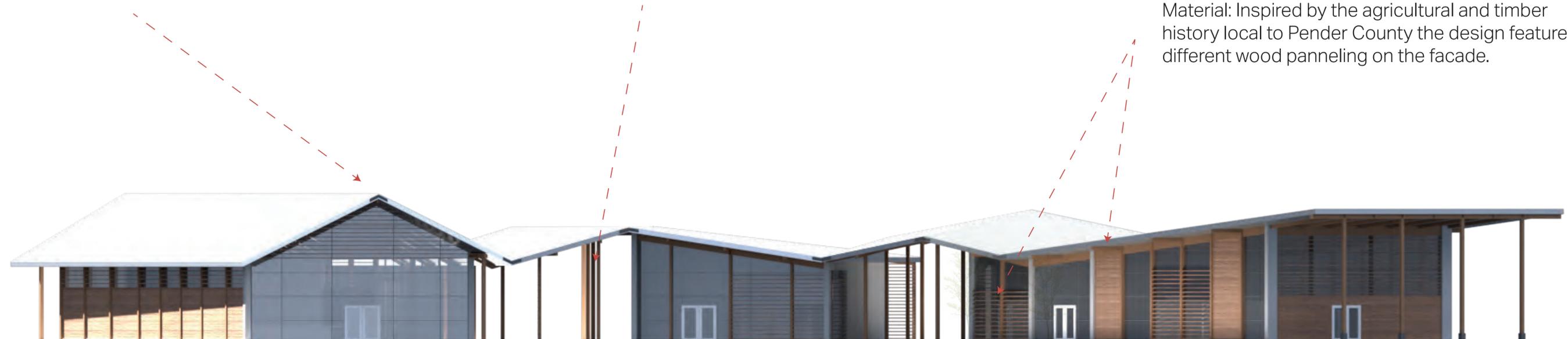
Exploded Axon of Roof and Structure

Roof: Metal Roof with SIPS Panels. Steel plate creates a moment connection with a tie rod post tensioned through the plates and SIPS Panels.

The shape was inspired by local tobacco barns gable roofs as well as the Blue Ridge Mountains.

Structure: Inspired by timber forests. Combination of balloon framing and heavy timber to create a medium frame system that is tall and linear reminiscent of timber fields

Material: Inspired by the agricultural and timber history local to Pender County the design features different wood panneling on the facade.



Rocky Point Community Health Center



Health

Preventative Care

+

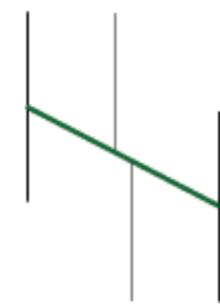
Community

Community Resilience

+

Disaster Resilience

Disaster + Emergency Preparedness



THE HEALTH HABITAT

bridging the gap between healthcare and horticulture

GAYATRI GANESH
ARC 401 FALL 2020



CHALLENGES ADDRESSED

“In Pender County, there’s not a lot of outlets. It’s the isolation [which contributes to the] suicides. There is a lack of feasibility” (Kerrie Bryant, Healthcare Industry)

MENTAL HEALTH

“41% of survey participants have depression, anxiety or post-traumatic stress disorder. Counseling/support groups was the 6th highest ranked choice.”

SUBSTANCE ABUSE

26.1% of community members ranked substance abuse as a top issue. “The death rate due to drug poisoning in Pender County is in the worst quartile compared to other NC Counties”

POSTPARTUM DEPRESSION & VETERANS PTSD

Highly-impacted populations with far travel distance. “The closest women’s health service is currently in Wilmington, 19 miles from Rocky Point” (Women’s Health Wilmington)

FOOD INSECURITY

Lack of facilities and ability to afford healthy food options. 14.5% are food insecure. Need for a “food pharmacy/teaching kitchen/community garden with access to an increased diversity of fresh produce”.
(Angela Livingood, PMH pharmacy manager)

DISASTER/FLOODING ISSUES

“Hurricane Florence caused the worst flooding in Pender County.” “Exposure to a traumatic event is the biggest risk factor for long-term mental effects, such as PTSD” (NC Health News 2018)

LACK OF WIFI ACCESS

Lack of internet connectivity in the area, which can create feelings of isolation. Residents cannot afford expensive wifi, about \$6/hour. (Susan Bullers, resident)

COVID ISOLATION

(Pender Health Assessment 2019)

VISION OF SUCCESS

Historically in the agriculturally rich Pender, “the strength of the farm lay in its large families of varying ages who worked together at their assigned chores. The semi-isolation that was characteristic of the county caused the citizenry to draw together and form cohesive groups that were strengthened by family ties, the community, and the church.”

(Historic and Architectural Resources of Pender County)



This joint proposal intends to address mental health and substance abuse issues among Rocky Point community members through proximal access to healthy lifestyle knowledge and food stability, community engagement, lectures and activities, and therapeutic healthcare. The facility will additionally address Wifi issues and provide knowledge on emergency preparedness, while tackling their mental effects on the population.

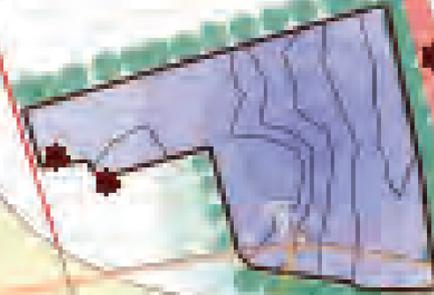
Veterans, young adults, the unemployed, and the elderly are the most impacted groups. It will also yield resources for the underrepresented dealing with postpartum depression, as well as providing services for farmers.

The diversity of the project will provide an access to essential resources which will strengthen community prosperity and wellbeing. A recreational space and healthcare facility that leverages existing local Pender resources will create a multi-functional and socially conscious comfort zone for community members.

SITE



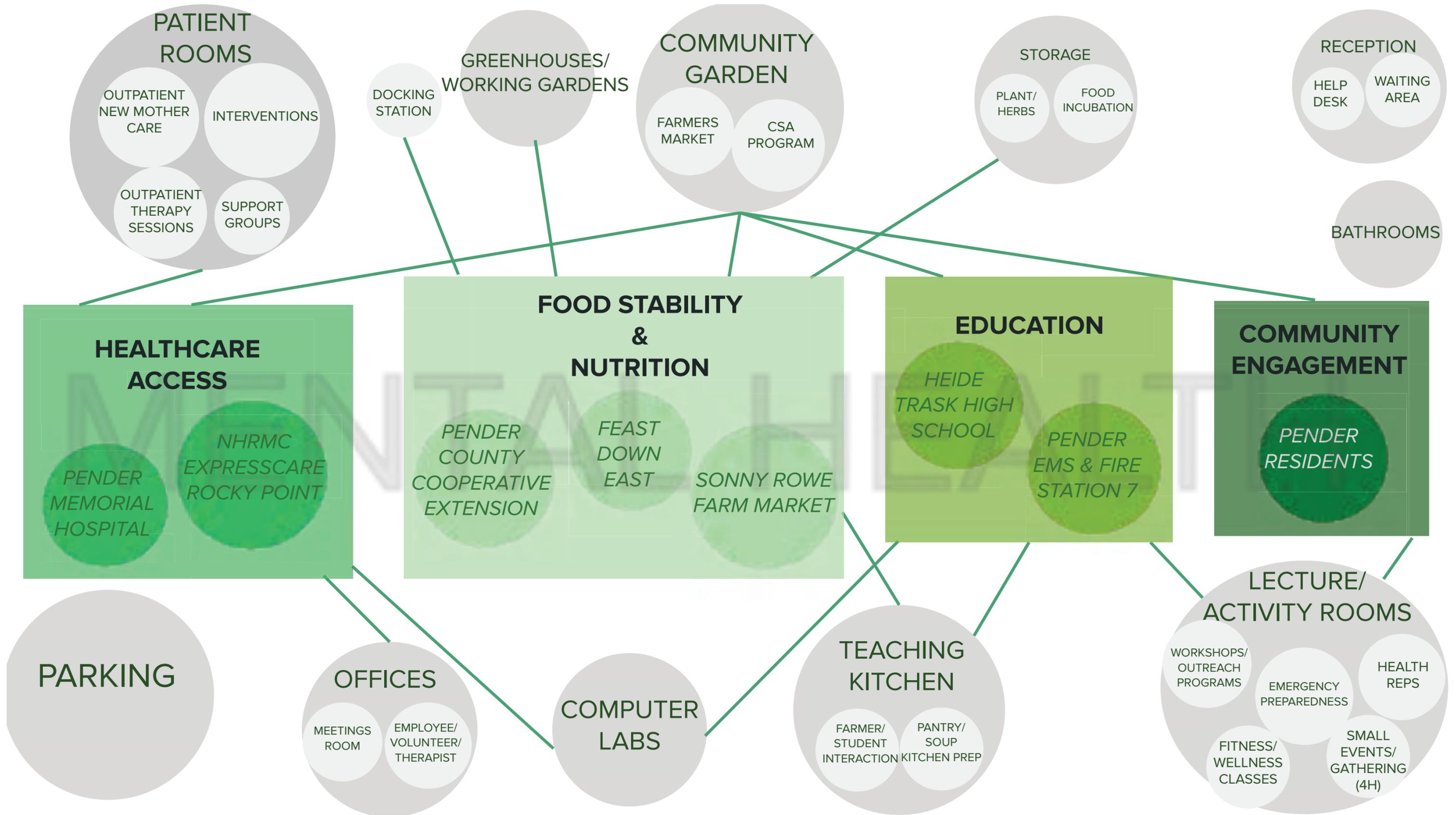
7772 U.S. 117, Rocky Point, NC 28457
22.17 acres



- Accessed via US-117 South or I-40 East, both connecting through NC-210 West.
- Regional mixed use area and belongs to the "GB" zone (general business district)– responsible for providing a major commercial zone along major highways in.
- Primary prevalent soil types: Goldsboro (GoA), Lumbee (Lu), Norfolk (NoA), Norfolk (NoB), Rains (Ra), and Meggett (Me). These are all classified as wet soils with moderate levels of seepage and drainage. (Soil Survey Pender County).
- There are no flooding zones on site.

It has resourceful and multi-functional surroundings, but is not distracted by them as it sits on its own individual patch.

Rocky Point is a community in Southern Pender County located in Burgaw, NC.



CONFIRMING NEED FOR COMMUNITY FACILITIES

*“We have the connections to help steward this through-- there’s a lot of agencies and people in Pender who would really see a benefit and need for [your facility]. We don’t have too many community health centers. I’ve worked with horticulture therapists before and believe it is an **important intersection with mental health**”.*

*“I can see benefit in having a **Mobile Market site*** at your proposed facility-- we could work that into our program where we come every other week for a 2 hour period. We could also integrate the **CSA**** program into that because right now it is inhibiting to have one pick-up location. Your facility could serve as a **pick-up location for closer Rocky Point members**”.*

*Mobile Market is a faction of Feast down East which subsidizes cost by 25% to ensure low prices for vulnerable communities

**Community Supported Agriculture is a faction of Feast down East that provides farmer-localized food boxes to community members

(Jordyn Appel-Hughes, Local Motive Program Director--Feast down East)

*“Having a **kitchen directly relating to a garden** would be a dream come true. Gardening produces chemicals that make you **feel good**. Giving people something to **nurture** is a **recreational activity to substitute for drug abuse**.”*

(Heather Kelejian, Agriculture Extension-- Horticulture and Gardening)

4H Co-op has an existing connection with Feast down East through the Latinx 4H club in Pender (Juntos)-- *“We were able to provide CSA boxes to over 40 families from our Juntos club. We’ve [Feast down East and 4h] been working together to do **drive-thru resources or vendor events**. The **youth** were able to help with **farmer crops and growth** in the past, through joint programs with **farmers markets**. It would be nice to have **nutrition education**.”*

(Liz Peterson, 4H Cooperative Extension Youth and Activities)

COMMUNITY GARDEN

5,000 sq. ft

DOCKING STATION

(resource distribution)
150 sq. ft

LECTURE/ACTIVITY ROOMS

300 sq. ft/room

4 rooms (out of which 200 sq. ft for recreational facilities)
~12 people/room

PATIENT ROOMS

250 sq. ft/room
8 rooms
~12 people/room

COMPUTER LABS

300 sq. ft/room
4 rooms
~12 people/room

OFFICES

150 sq. ft/office and meeting room
4 rooms
~12 people/room

STORAGE

250 sq. ft

RECEPTION LOBBY

200 sq. ft
~11 people at a time

BATHROOMS

400 sq. ft

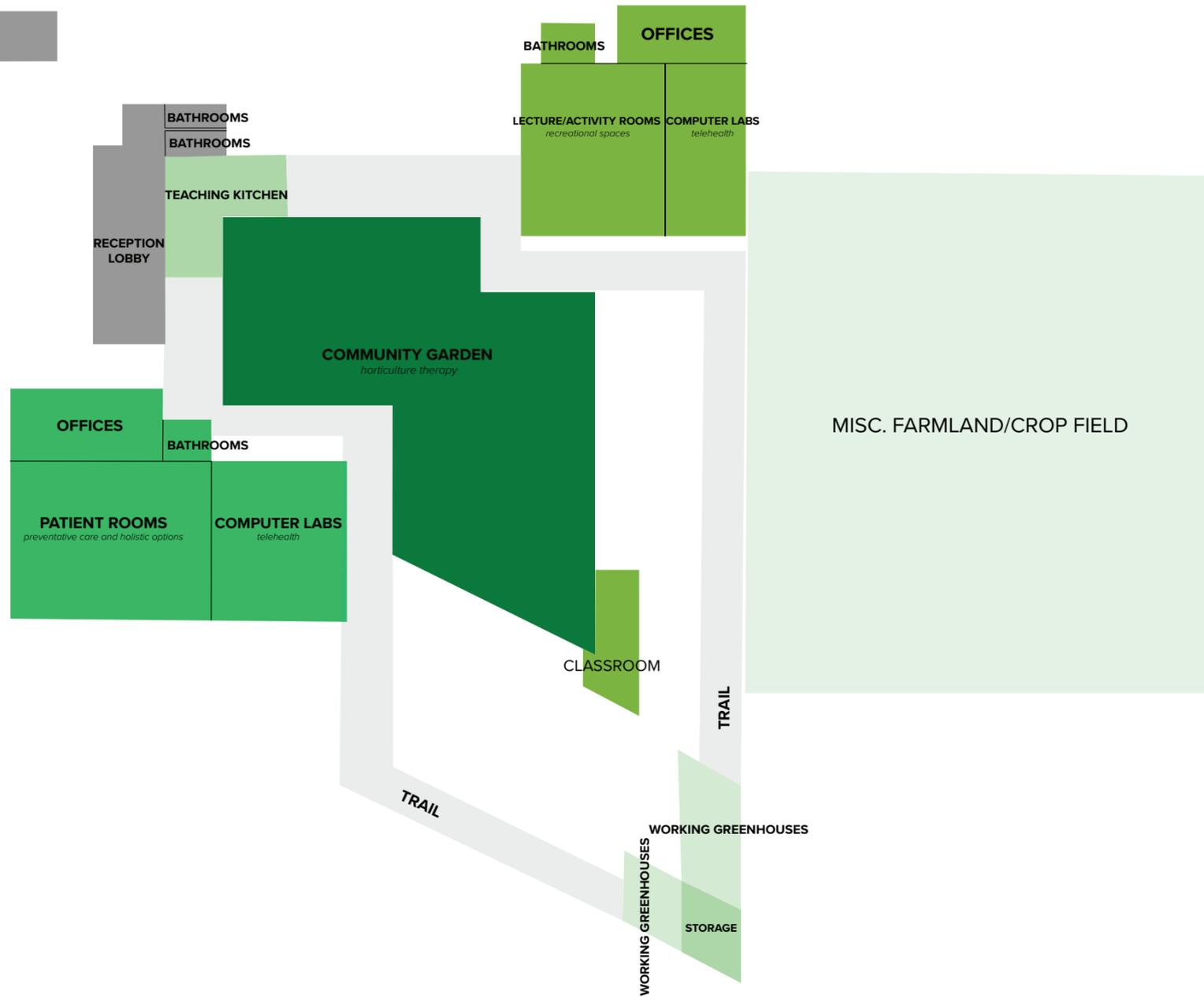
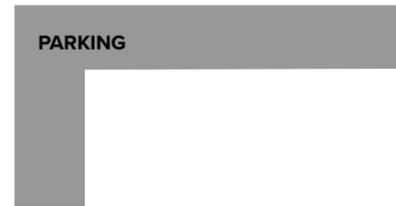
PARKING

2,000 sq. ft
~43 cars

WORKING GREENHOUSES (6)

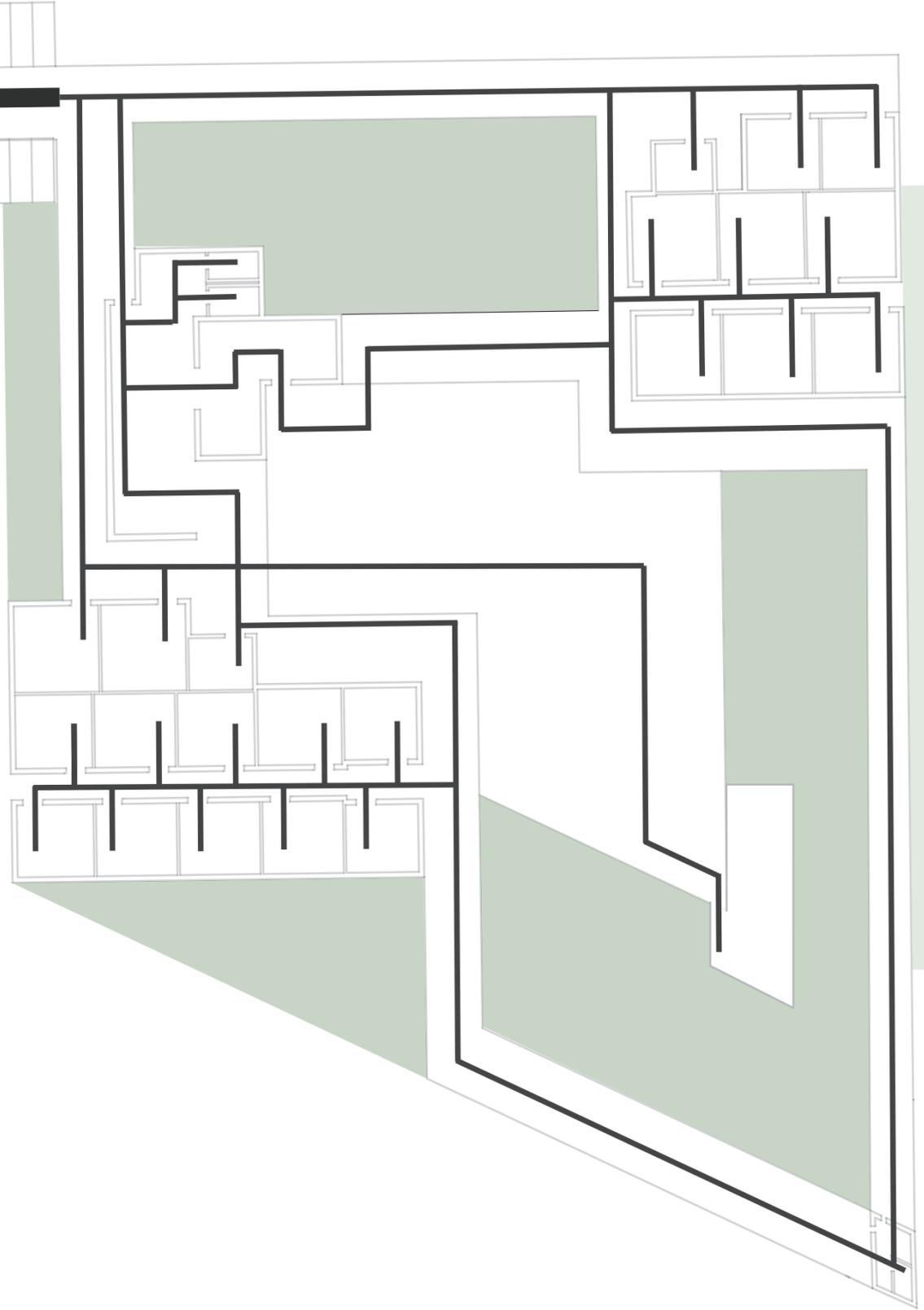
250 sq. ft each

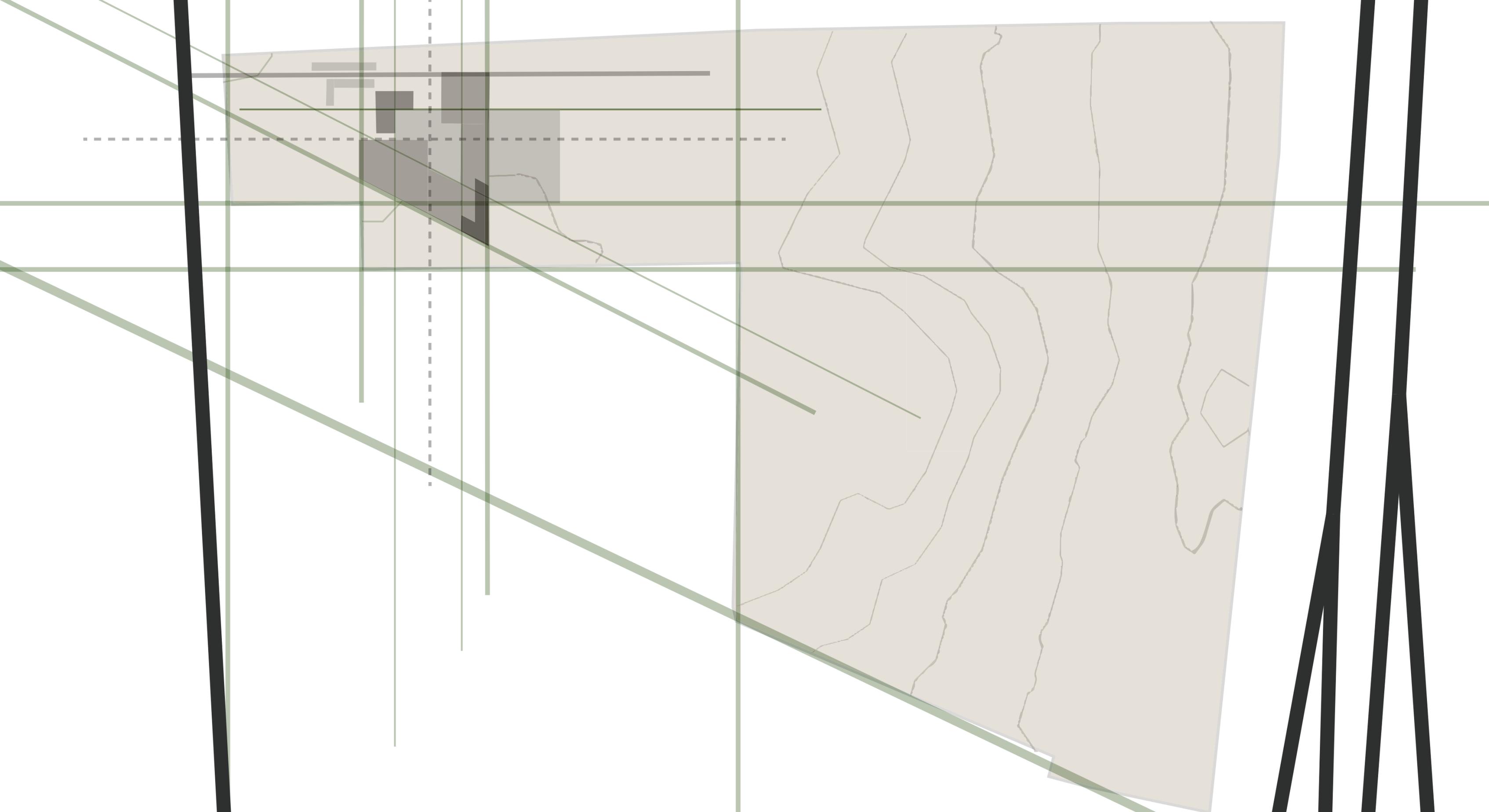
CLASSROOM

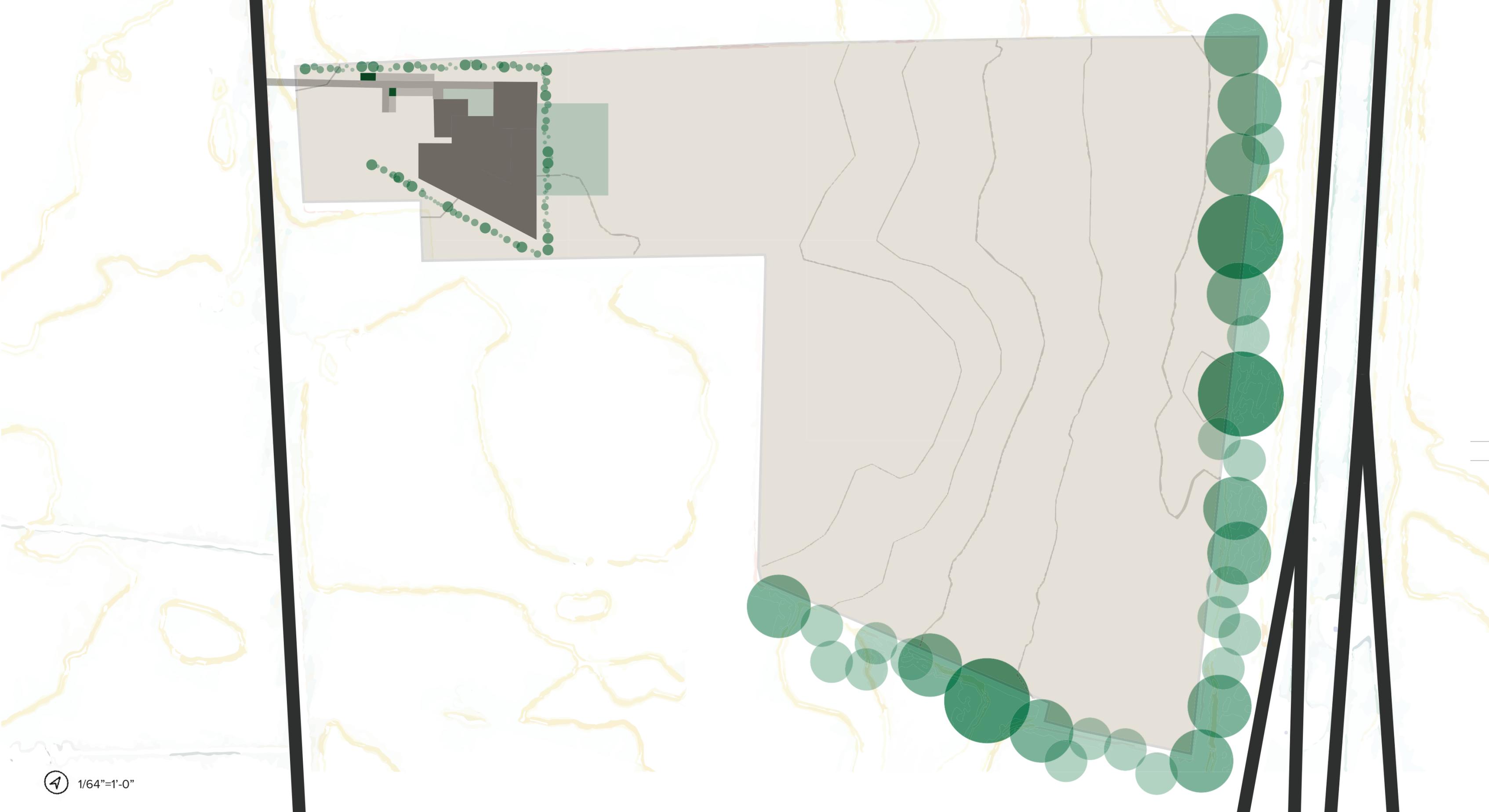


- COMMUNITY ENGAGEMENT
- HEALTHCARE ACCESS
- EDUCATION
- FOOD STABILITY AND NUTRITION

US 117S

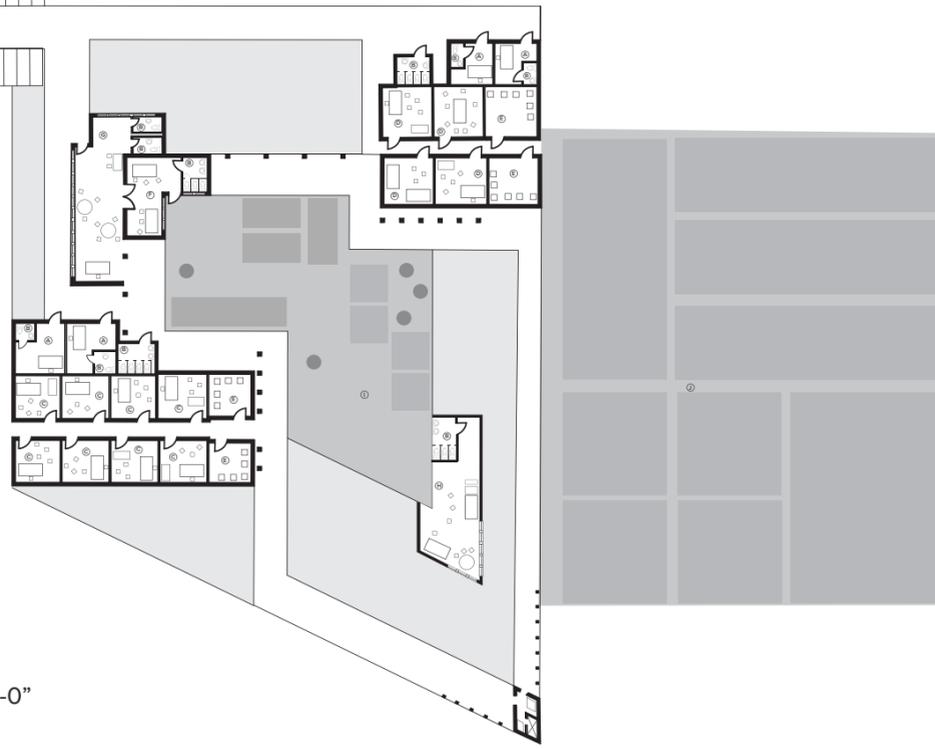






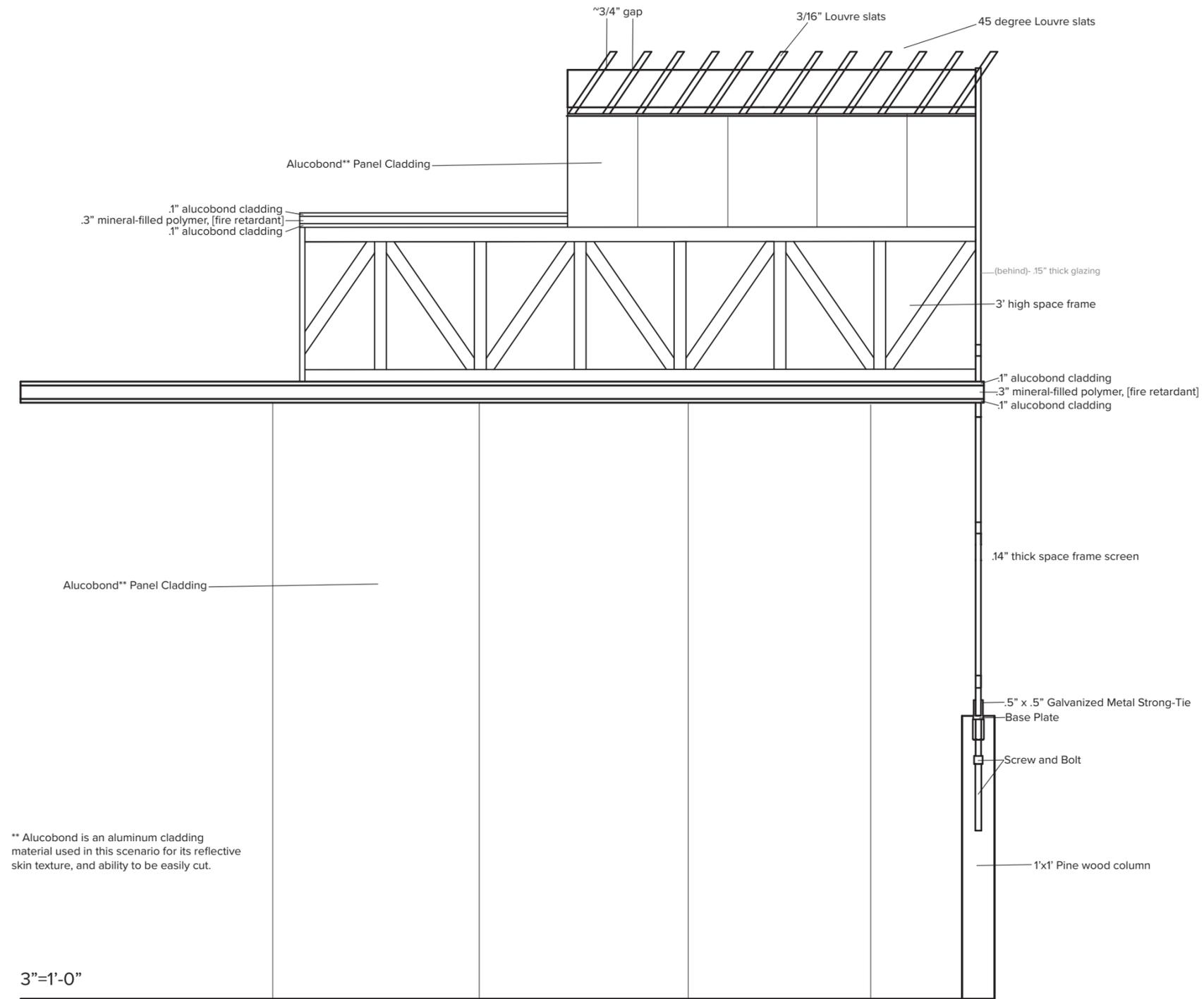
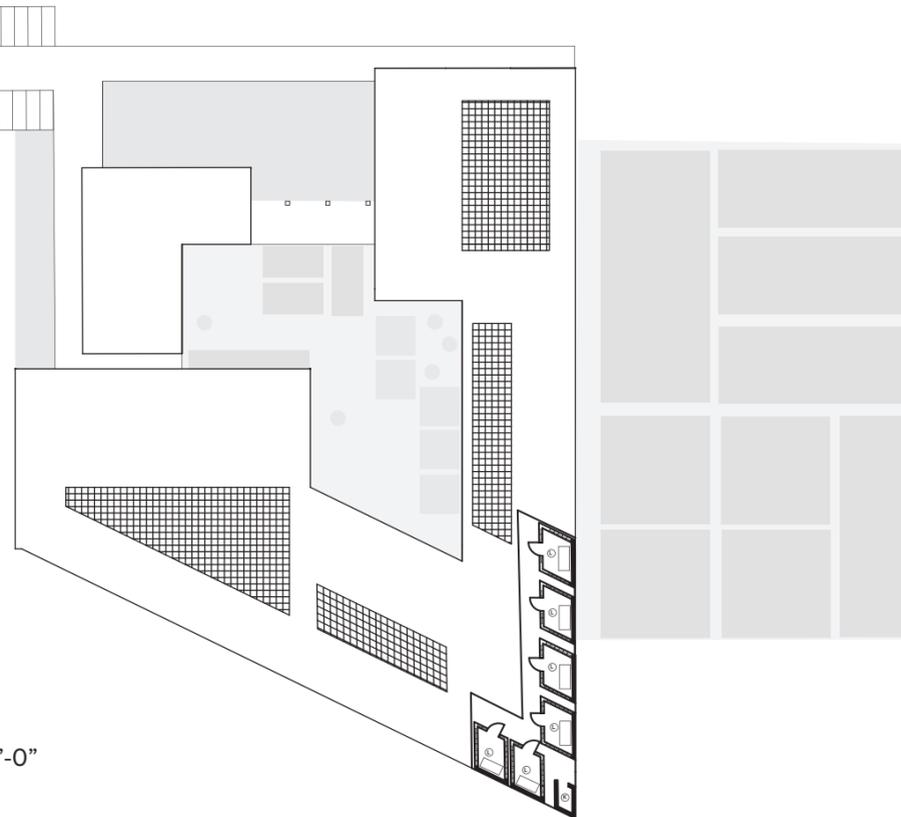
- (A) OFFICE
- (B) BATHROOM
- (C) PATIENT ROOM
- (D) LECTURE & ACTIVITY ROOM
- (E) COMPUTER LAB
- (F) TEACHING KITCHEN
- (G) RECEPTION
- (H) CLASSROOM
- (I) COMMUNITY GARDEN
- (J) FARMLAND

1/4"=1'-0"



- (K) ELEVATOR
- (L) WORKING GREENHOUSES

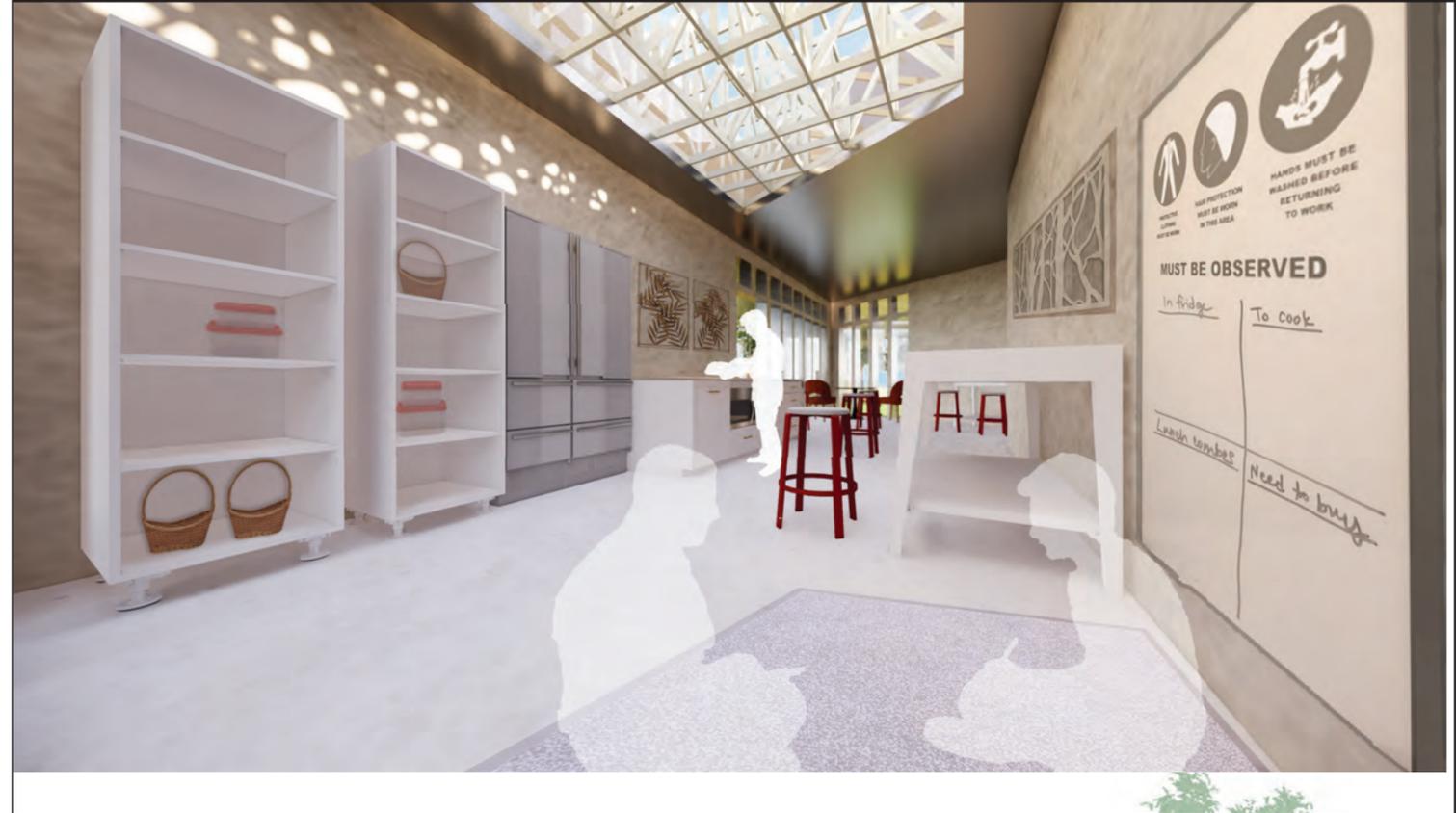
1/4"=1'-0"



** Alucobond is an aluminum cladding material used in this scenario for its reflective skin texture, and ability to be easily cut.

East Cut









OUTCOMES

This facility will address mental health issues among Rocky Point residents through a diverse means. The multi-functional recreational space and community hub will create a sense of place while encouraging community connection. It will serve as a comfort zone while leveraging pride factors.



PENDER COUNTY HEALTH + RESILIENCY PARK

FAMILY HEALTHCARE + COMMUNITY PLACEMAKING + DISASTER RECOVERY

LAUREN WICK



**HOW CAN
ACCESSIBLE HEALTHCARE
BECOME A CATALYST FOR
PLACEMAKING AND CONNECTION
IN RURAL COMMUNITIES?**

PENDER COUNTY

HEALTH + RESILIENCY PARK

FAMILY HEALTHCARE + COMMUNITY PLACEMAKING + DISASTER RECOVERY



TO PROVIDE A
SUSTAINABLE + ACCESSIBLE
MODEL OF HEALTHCARE
DELIVERY THAT WILL
ENCOURAGE COMMUNITY
PLACEMAKING AND
CONTINUE TO
CONNECT + EDUCATE + ADAPT
TO THE GROWING AND
EVOLVING NEEDS
OF (ALL) COMMUNITIES
IN PENDER COUNTY

IN THE EVENT
OF AN EMERGENCY,
THIS MODEL WILL SERVE
AS A DISASTER
TRAINING + RESPONSE + RECOVERY
CENTER FOR THE
LOCAL COMMUNITY
AND OTHER NC RESIDENTS
EVACUATING THE COAST

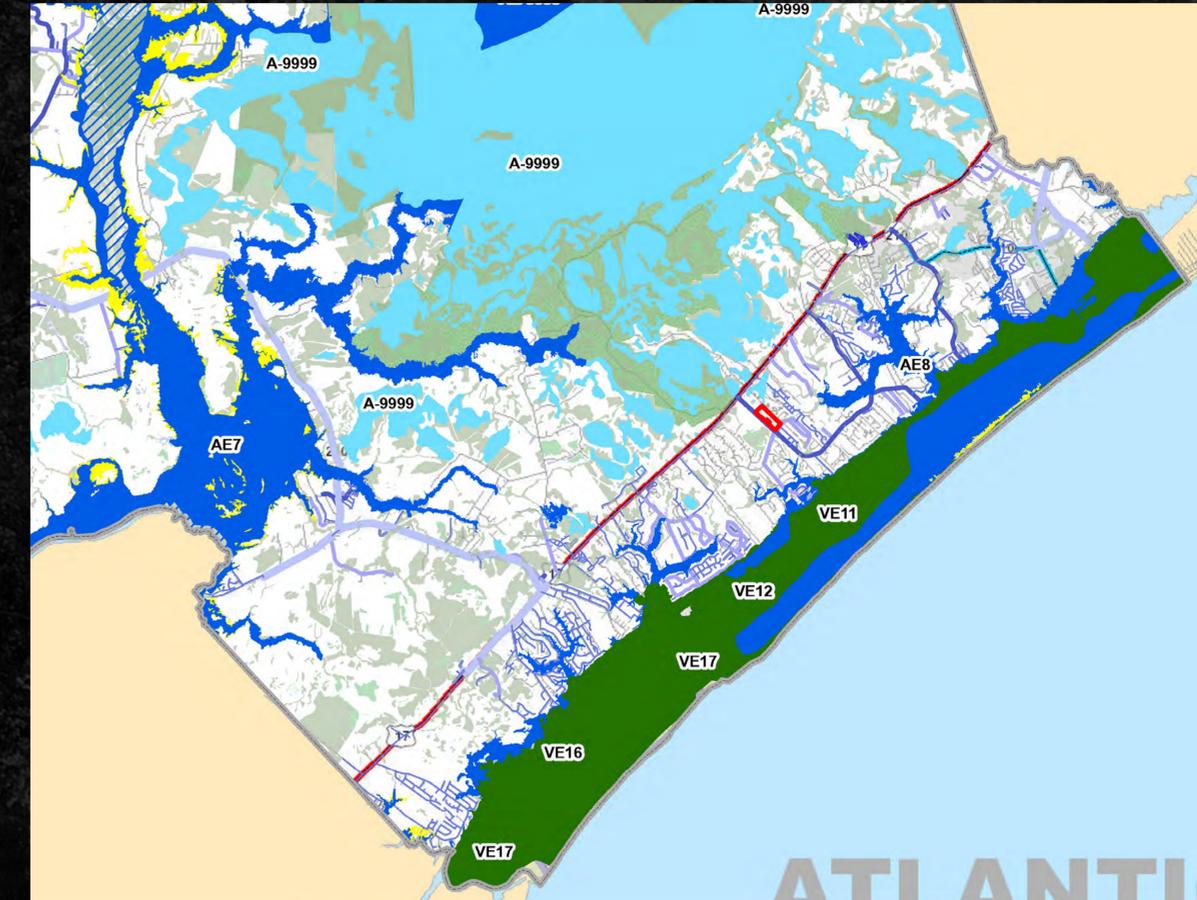
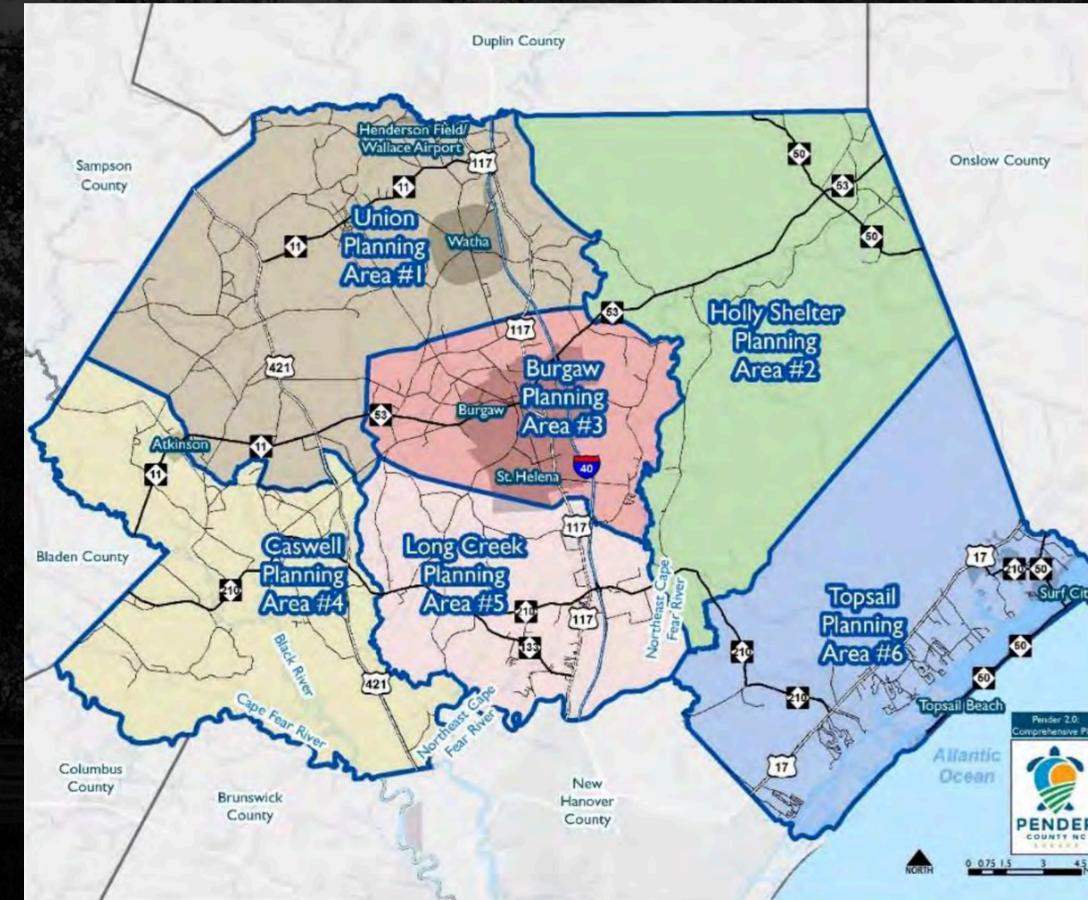


COMMUNITY+
LOCATION

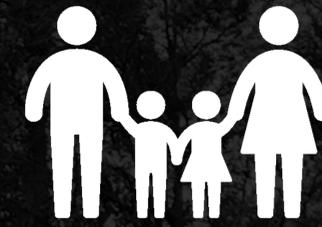
HAMPSTEAD, NC

UNINCORPORATED
COMMUNITY IN TOPSAIL
TOWNSHIP, GROWING
POPULATION OF 15,820

(2017 US CENSUS)



**RESIDENTS OF
HAMPSTEAD, NC
INCLUDING:**



FAMILIES



**THOSE WHO
WANT TO
IMPROVE OR
MAINTAIN THEIR
HEALTH**



KIDS



**HEALTHCARE
PROFESSIONALS**



**WORKING
PROFESSIONALS
AND
COMMUTERS**



SENIORS

COMMUNITY + LOCATION

OBSTACLES

-POOR ACCESS TO HEALTHCARE POOR PERCEPTION OF LOCAL HOSPITAL ACCORDING TO INTERVIEWS WITH LOCAL RESIDENTS

-LITTLE TO NO PLACEMAKING / GATHERING SPACES...ESPECIALLY FOR YOUTH
(INFORMATION BASED OFF COMMUNITY OBSERVATION, INTERVIEWS WITH LOCALS)

-AREA PRONE TO SEVERE WEATHER + FLOODING

-LITTLE INCENTIVE FOR HEALTHCARE PROFESSIONALS TO WORK IN PENDER
(INFORMATION BASED OFF DISCUSSION PANEL AT PENDER MEMORIAL, PHARMACY STUDENT INTERVIEW)

-POOR INTERNET CONNECTION
(INFORMATION BASED OFF DISCUSSION PANEL AT PENDER MEMORIAL HOSPITAL)

-LOW MOBILITY / WALKABILITY, TRAFFIC ISSUES/ "BEDROOM COMMUNITY", COUNTY ESSENTIALLY SPLIT IN HALF BY 1-40
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ASSETS

-COMMUNITY GROWTH AND DEVELOPMENT + MORE FAMILIES

-DESIRE FOR PLACEMAKING + CONNECTION (EXAMPLE: COURTHOUSE LOOP)

-EXISTING NETWORK OF SERVICES

-RICH HISTORY IN AGRICULTURE, TOBACCO BARNS

-CONNECTION TO THE ENVIRONMENT, OPPORTUNITIES FOR OBSERVATION + EDUCATION (WETLANDS, TRAILS, FOREST, BEACH)

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IDENTIFIED NEEDS

**-PEDIATRIC CARE + PRIMARY CARE
-REHABILITATION + MENTAL HEALTH SERVICES**

-EDUCATION ABOUT HEALTH + WELLNESS (BASED OFF STATEMENTS FROM LOCAL INTERVIEWS + COMMUNITY HEALTH ASSESSMENT)

-BETTER DISASTER RESPONSE + RECOVERY COMMUNICATION + RESOURCES

-SAFE, ACCESSIBLE SPACES FOR RECREATION + GATHERING (EXAMPLE: PENDER MEMORIAL PARK VS. COURTHOUSE LOOP)

-INTERNET ACCESS (INFORMATION BASED OFF DISCUSSION PANEL AT PENDER MEMORIAL HOSPITAL)

-MORE JOB OPTIONS IN PENDER (EMPLOYMENT+MOBILITY STATISTICS)

ENGAGEMENT + STAKEHOLDERS

ENGAGEMENT STRATEGIES

-DISCUSSION PANEL AT PENDER MEMORIAL HOSPITAL WITH HOSPITAL STAFF, LS3P, NCSU PID STUDIO, AND PENDER CITY PLANNER

-LOCAL INTERVIEWS WITH VARIOUS RESIDENTS OF THE COMMUNITY ABOUT ACCESS TO HEALTHCARE CONDUCTED AT PENDER COUNTY PARKS

-COMMUNITY OBSERVATION

-MEETING WITH PENDER COUNTY PARKS + RECREATION DEPT.

WITH ZACHARY WHITE AND DOUG SHIPLEY, GAINED VALUABLE INSIGHT ON COMMUNITY PLANNING, PARKS, LOCAL GROWTH + NEEDS, ENGAGEMENT PATTERNS

-PHONE CALL WITH ECU SCHOOL OF RURAL PUBLIC HEALTH

-DESIGN FEEDBACK FROM HEALTHCARE PROFESSIONALS

STAKEHOLDERS

-RESIDENTS OF PENDER COUNTY: SPECIFICALLY NEW RESIDENTS, FAMILIES, SENIORS, KIDS, WORKING PROFESSIONALS, STUDENTS, HEALTHCARE PROFESSIONALS, FARMERS, THOSE TO WANT TO IMPROVE OR MAINTAIN A HEALTHY LIFESTYLE

-DESIGN TEAM: NCSU PID STUDIO

-LS3P: KATHERINE PEELE, FAIA, LEED AP, PRINCIPAL, CHIEF PRACTICE OFFICER

CHRIS BONEY, AIA, LEED AP, CHIEF RELATIONSHIPS OFFICER, FROM PENDER COUNTY

MARC MARCHANT, HEALTHCARE PRACTICE LEADER

-LOCAL GOV. + PLANNING + STATE, REGIONAL SECTORS

-PENDER COUNTY MEMORIAL HOSPITAL + NEW HANOVER REGIONAL MEDICAL HOSPITAL:

RUTH GLASER, PRESIDENT OF PENDER MEMORIAL HOSPITAL

ANGELA LIVINGWOOD, PHARMD

-FIRE+EMS+RESCUE TEAMS

*DISASTER RECOVERY EXPERT: GAVIN SMITH

-PENDER COUNTY USDA

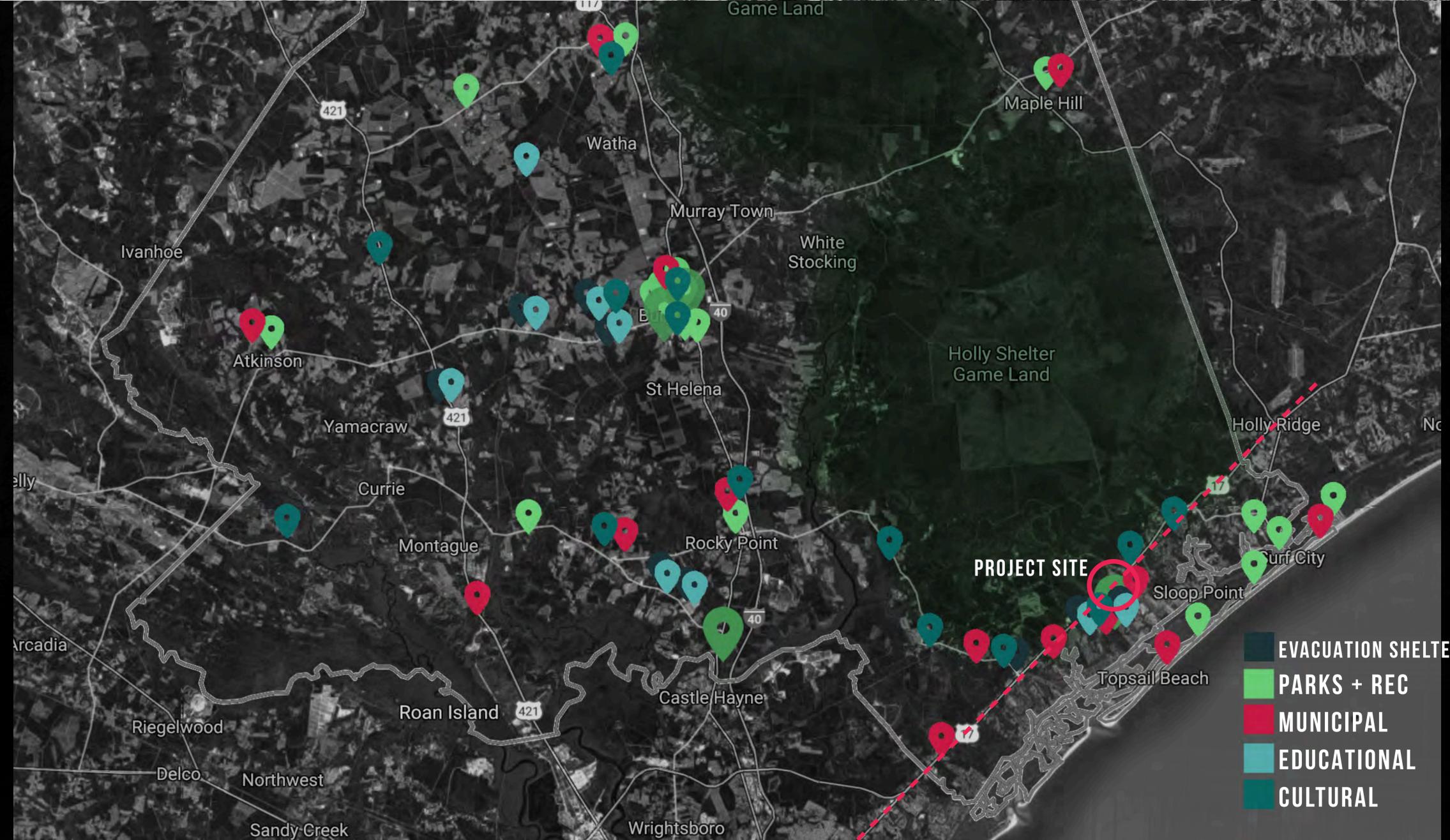
-PENDER COUNTY EMERGENCY MANAGEMENT: TOM COLLINS

*DAVID PERKES, GULF COAST COMMUNITY DESIGN STUDIO

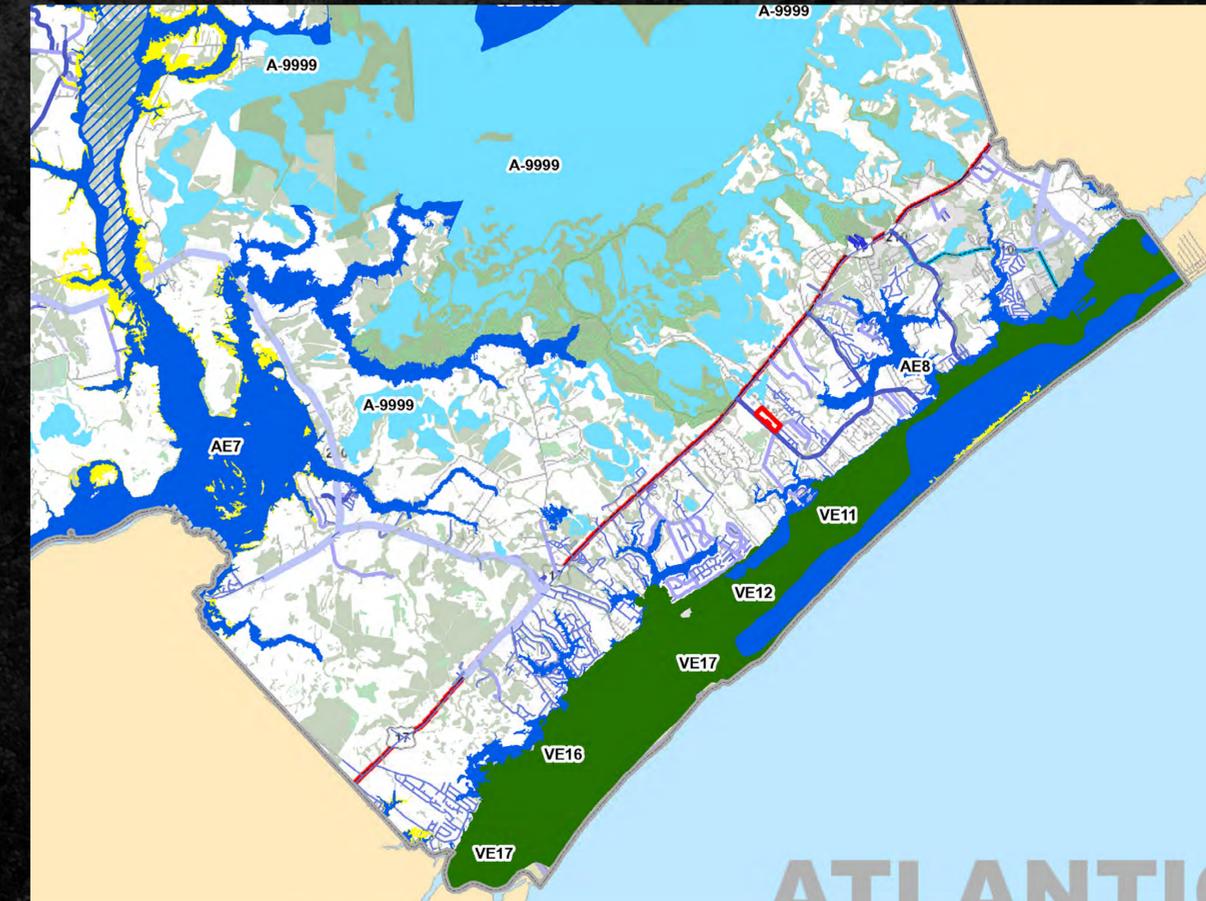
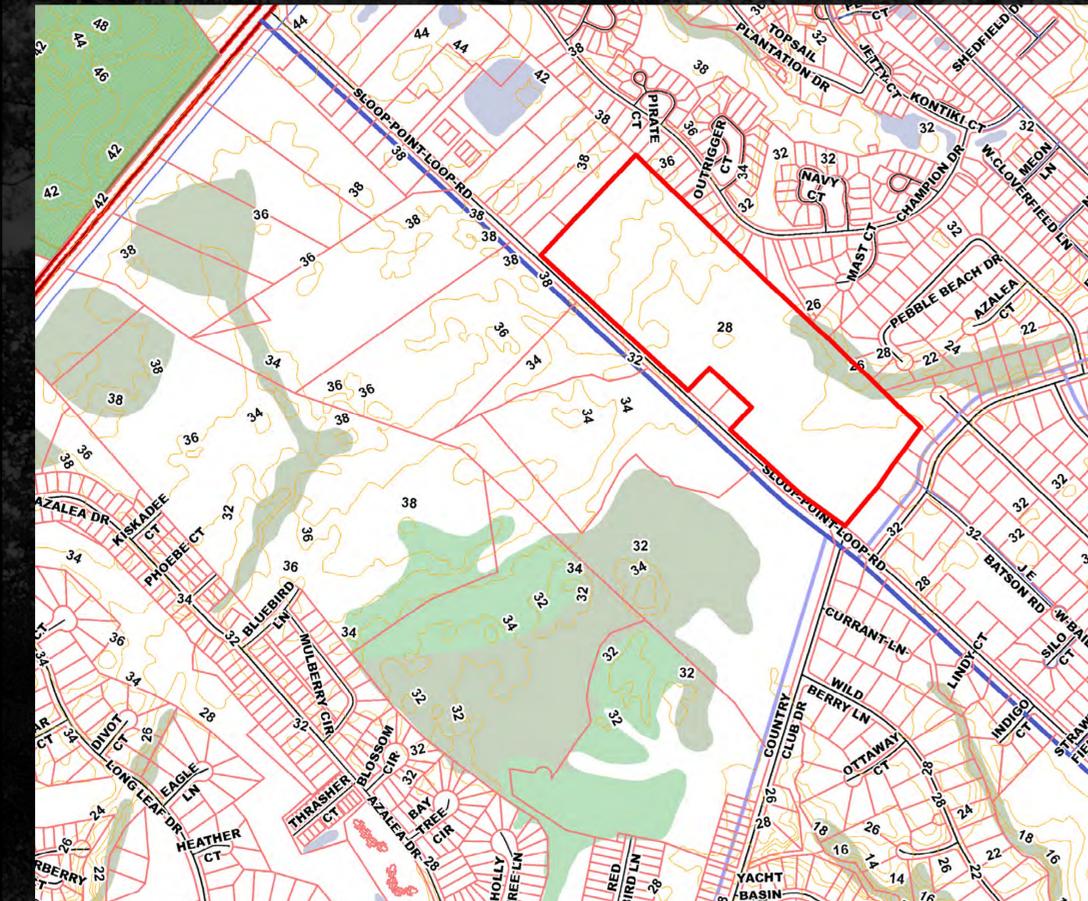
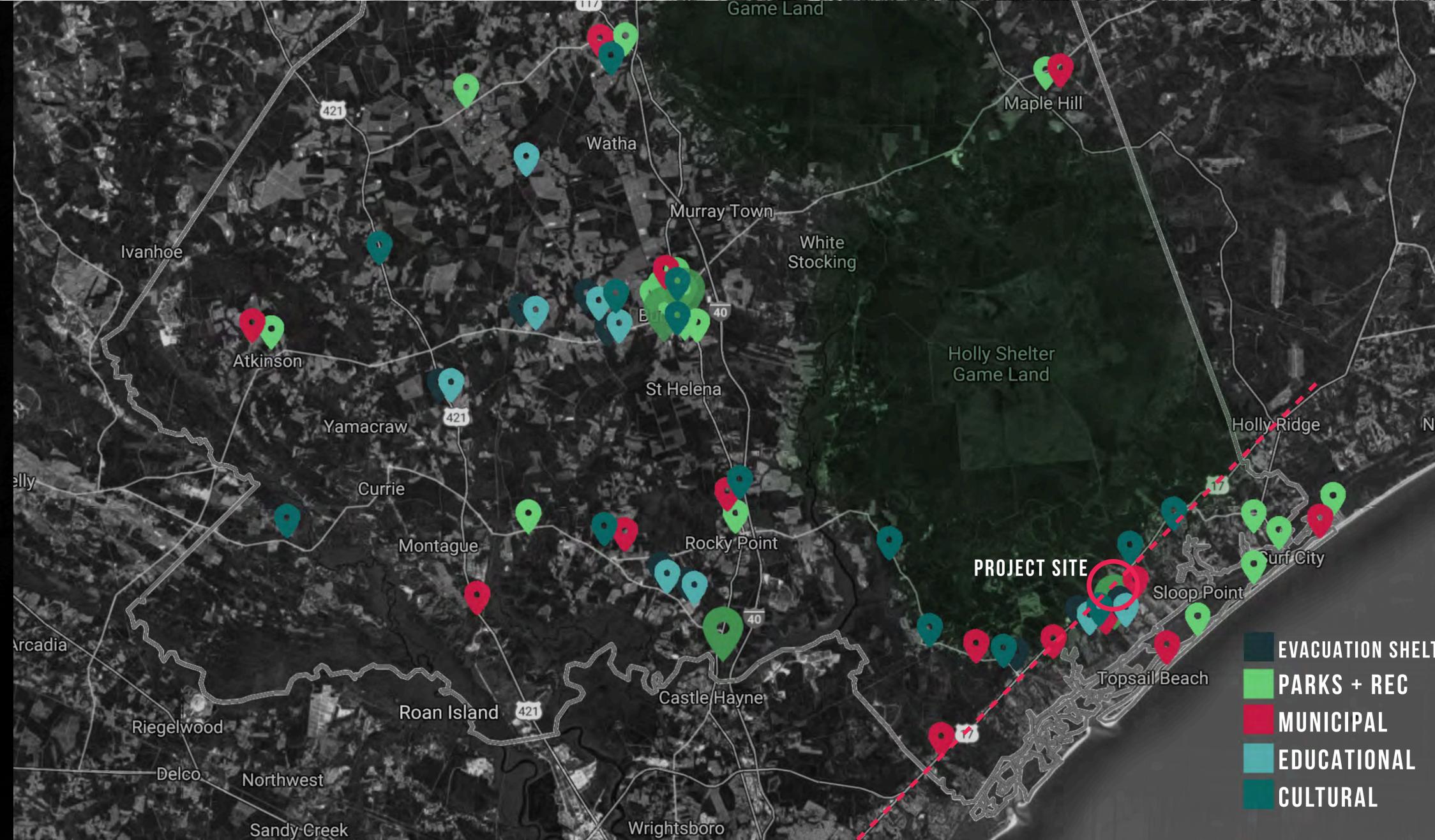
*PENDER COUNTY PARKS + RECREATION DEPT. ZACHARY WHITE, DOUG SHIPLEY

-INDEPENDENT HEALTHCARE PROVIDERS + PHARMACIES IN PENDER COUNTY

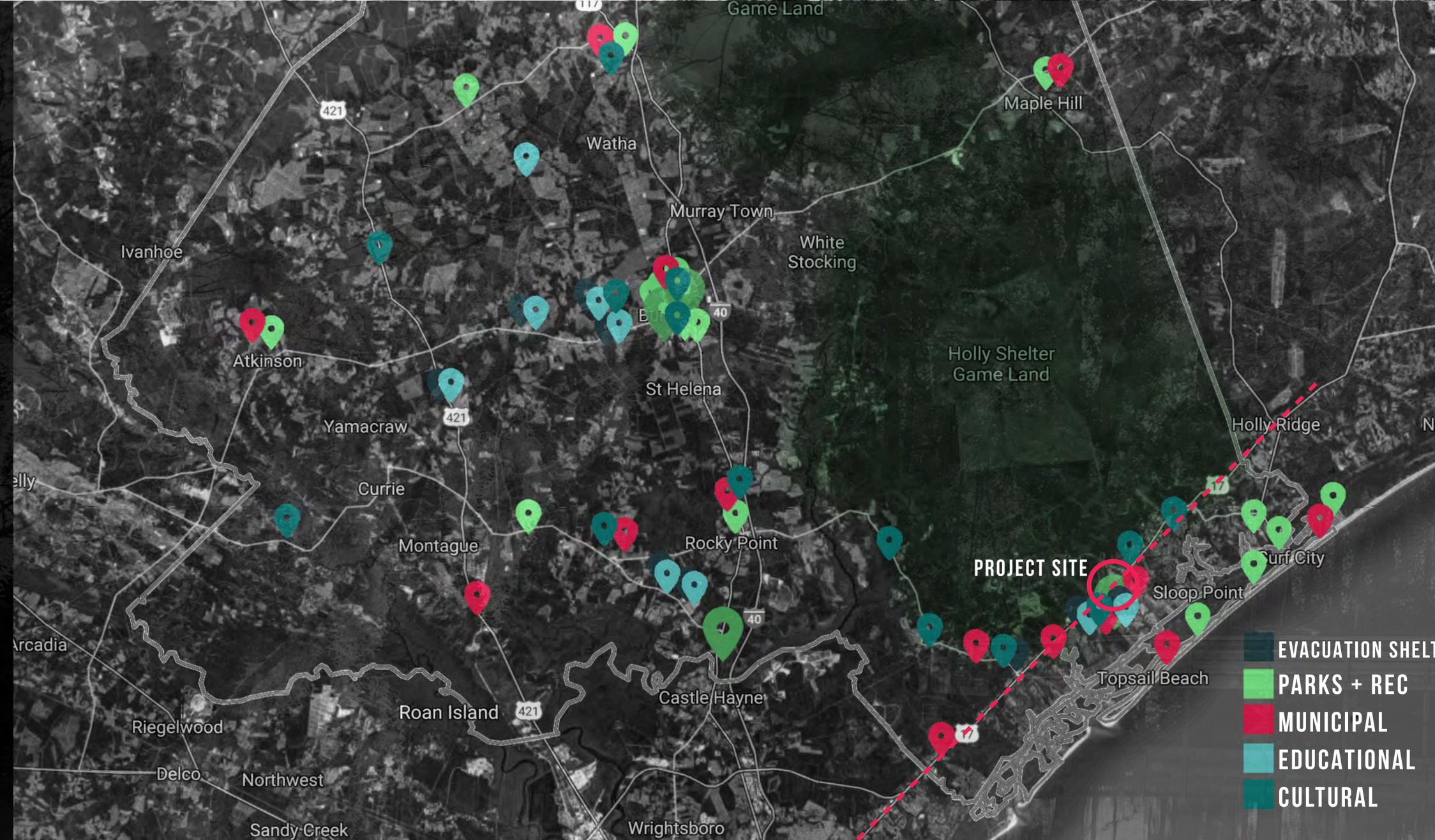
-POTENTIAL: ECU SCHOOL OF RURAL PUBLIC HEALTH, LOCAL DEVELOPERS, NON-PROFITS, FOUNDATIONS



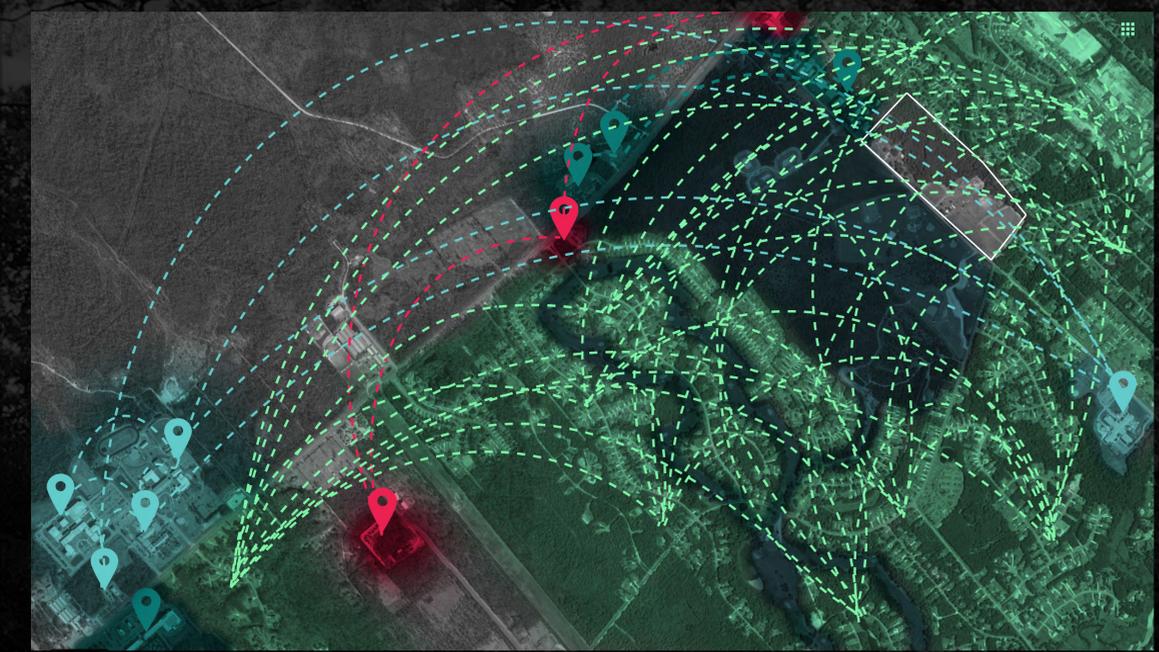
COUNTY ASSETS



PROJECT SITE

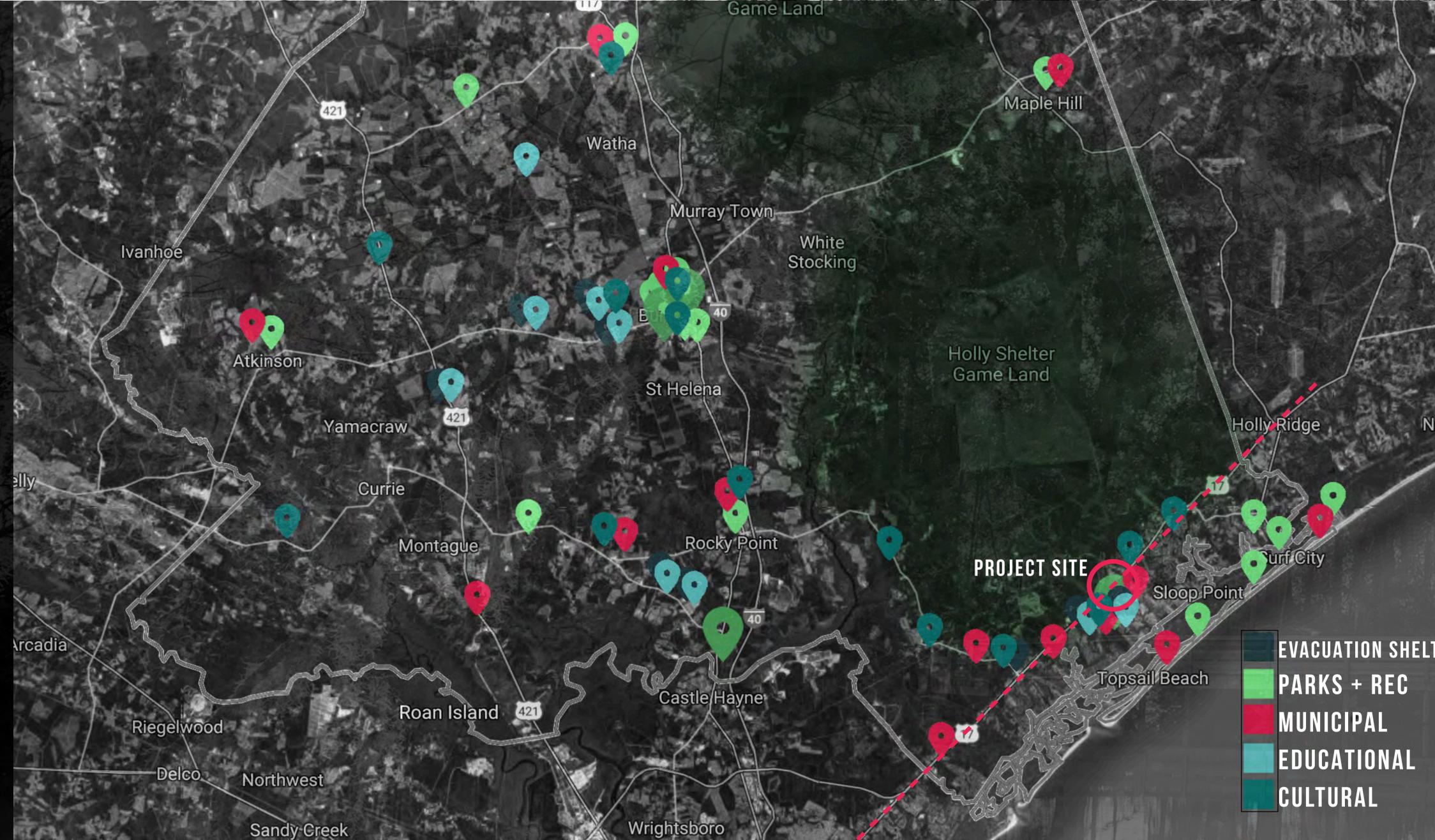


EXISTING INFRASTRUCTURE

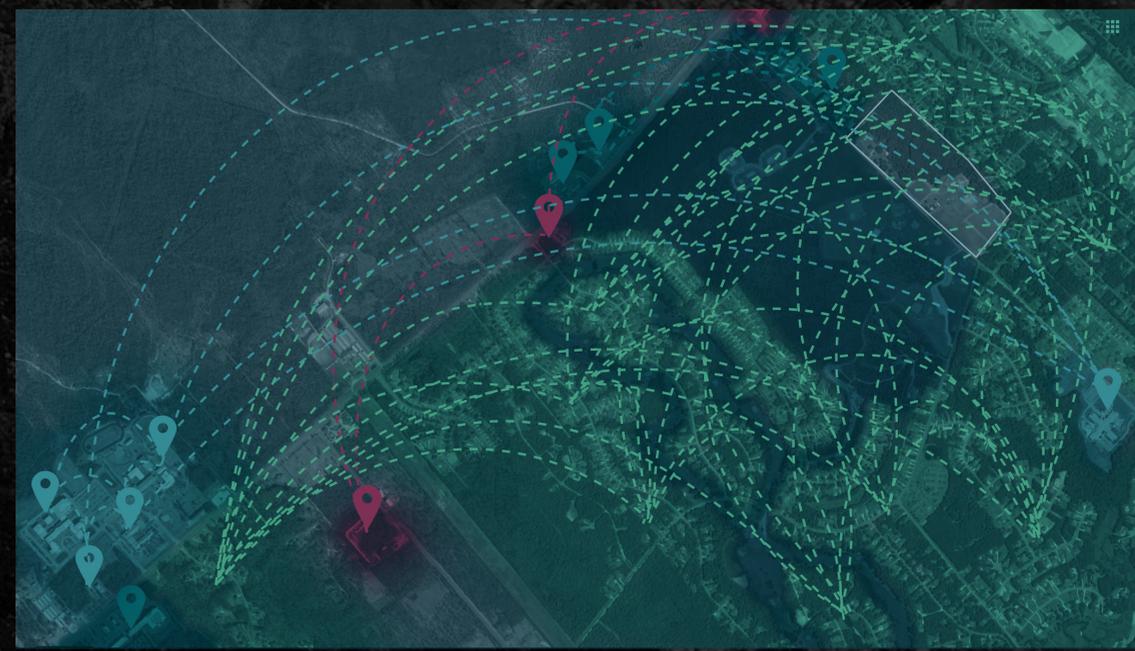
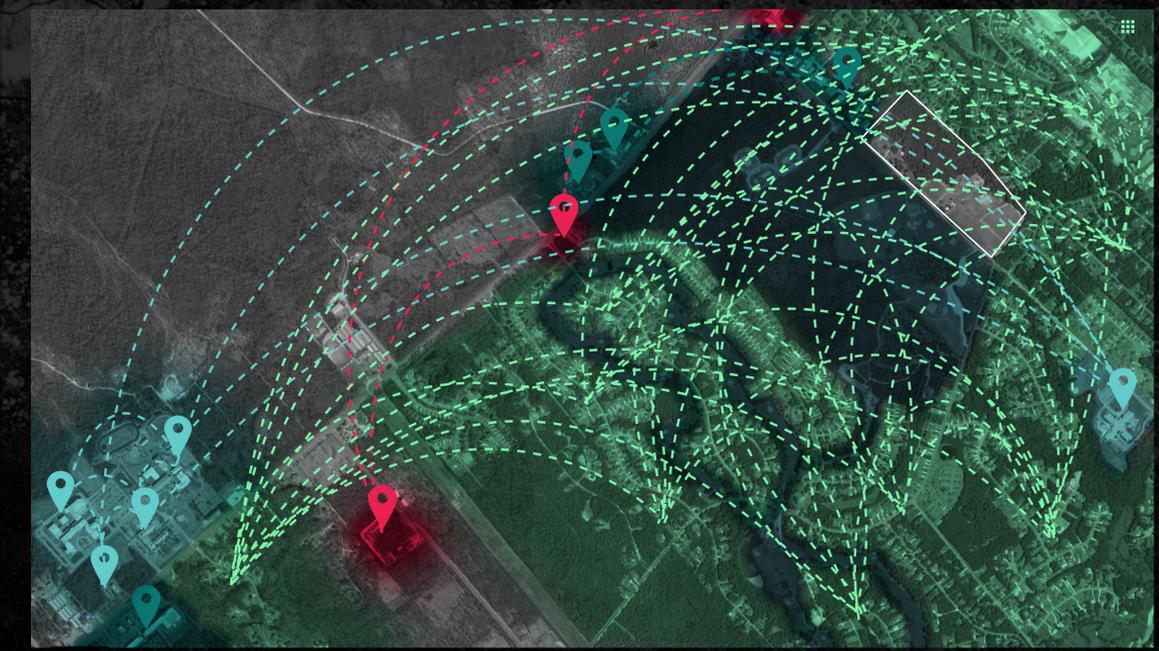


- PARKS + REC
- RESIDENTIAL
- MUNICIPAL
- EDUCATIONAL
- CULTURAL/COMMERCIAL

- EVACUATION SHELTER
- PARKS + REC
- MUNICIPAL
- EDUCATIONAL
- CULTURAL



EXISTING INFRASTRUCTURE



- PARKS + REC**
 - RESIDENTIAL**
 - MUNICIPAL**
 - EDUCATIONAL**
 - CULTURAL/COMMERCIAL**
- PARKS + REC**
 - RESIDENTIAL**
 - MUNICIPAL**
 - EVACUATION SHELTER**
 - CULTURAL/RESOURCES**

DAY-TO-DAY PROGRAM

FAMILY PRIMARY CARE CENTER

- 24-HOUR PHARMACY
- FAMILY PRIMARY CARE
- PEDIATRIC PRIMARY CARE
- MATERNITY + INFANT CARE
- MENTAL HEALTH SERVICES
- RADIOLOGY
- ADMIN, OFFICES, STORAGE, CENTRAL SUPPLY

PEDIATRIC REHABILITATION CENTER

- PHYSICAL THERAPY
- DAYCARE
- PEDIATRIC PATIENT ROOMS
- TEEN PATIENT ROOMS
- MENTAL HEALTH SERVICES
- ADMIN, OFFICES, STORAGE

CO-WORKING HUB

- CO-WORKING SPACES (COMMUNITY DESKS, OFFICES, MEETING SPACES)
- CLASSROOMS/WORKSHOP SPACE
- TECH (ACCESS TO COMPUTERS, PRINTERS/SCANNERS/PLOTTERS, ETC)
- *ALL MEANT TO ALSO BE UTILIZED BY STUDENTS AFTER SCHOOL
- EMERGENCY MANAGEMENT HUB
- DISASTER RECOVERY HUB

COMMUNITY KITCHEN + MARKET

- KITCHEN + CLASSES
- MARKET + VENDORS (HEALTHY OPTIONS, PRODUCE, LOCAL GOODS)
- GATHER
- COMMUNITY FARMING

PRIMARY CARE CENTER

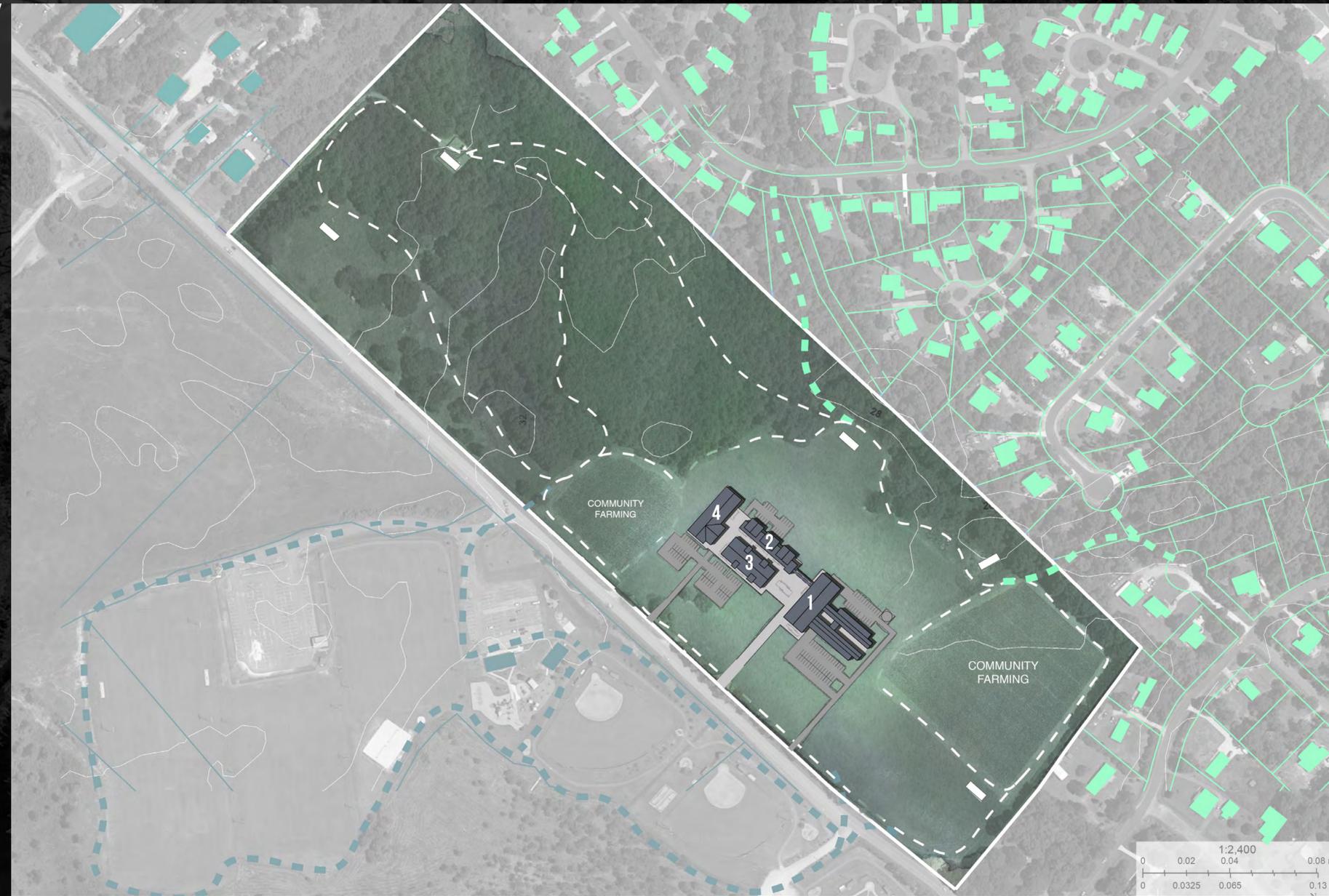
REHABILITATION

CO-WORKING HUB

COMMUNITY

KITCHEN+ MARKET

DAY-TO-DAY SITE PLAN



1. PRIMARY CARE CENTER
2. REHABILITATION CENTER
3. CO-WORKING HUB
4. COMMUNITY KITCHEN + MARKET

DAY-TO-DAY

FAMILY PRIMARY CARE CENTER

24-HOUR PHARMACY
FAMILY PRIMARY CARE
PEDIATRIC PRIMARY CARE
MATERNITY + INFANT CARE
MENTAL HEALTH SERVICES
RADIOLOGY
ADMIN, OFFICES, STORAGE, CENTRAL SUPPLY

PEDIATRIC REHABILITATION CENTER

PHYSICAL THERAPY
DAYCARE
PEDIATRIC PATIENT ROOMS
TEEN PATIENT ROOMS
MENTAL HEALTH SERVICES
ADMIN, OFFICES, STORAGE

CO-WORKING HUB

CO-WORKING SPACES (COMMUNITY DESKS, OFFICES, MEETING SPACES)
CLASSROOMS/WORKSHOP SPACE
TECH (ACCESS TO COMPUTERS, PRINTERS/SCANNERS/PLOTTERS, ETC)
*ALL MEANT TO ALSO BE UTILIZED BY STUDENTS AFTER SCHOOL
EMERGENCY MANAGEMENT HUB
DISASTER RECOVERY TRAINING

COMMUNITY KITCHEN + MARKET

KITCHEN + CLASSES
MARKET + VENDORS (HEALTHY OPTIONS, PRODUCE, LOCAL GOODS)
GATHER
COMMUNITY FARMING

PRIMARY CARE CENTER

REHABILITATION

CO-WORKING HUB

COMMUNITY KITCHEN + MARKET

FAMILY PRIMARY CARE CENTER

BECOMES URGENT CARE IF NEEDED
24-HOUR PHARMACY
PRIMARY CARE (FOR ALL)
MENTAL HEALTH SERVICES
RADIOLOGY
ADMIN, OFFICES, STORAGE, CENTRAL SUPPLY

SPECIALTY CARE SHELTER

CHILD PLAY AREA
SPECIALTY CARE SHELTER ROOMS (THOSE IN NEED OF SPECIAL/MEDICAL ATTENTION)
MENTAL HEALTH SERVICES
ADMIN, OFFICES, STORAGE

DISASTER RESPONSE HUB

MEETING/GATHER/SUPPORT
TECH (ACCESS TO COMPUTERS, PRINTERS/SCANNERS/PLOTTERS, ETC)
EMERGENCY MANAGEMENT HUB
CASE MANAGEMENT

COMMUNITY MARKET

MASS FEED + GATHER/SUPPORT

TEMPORARY SHELTER UNITS

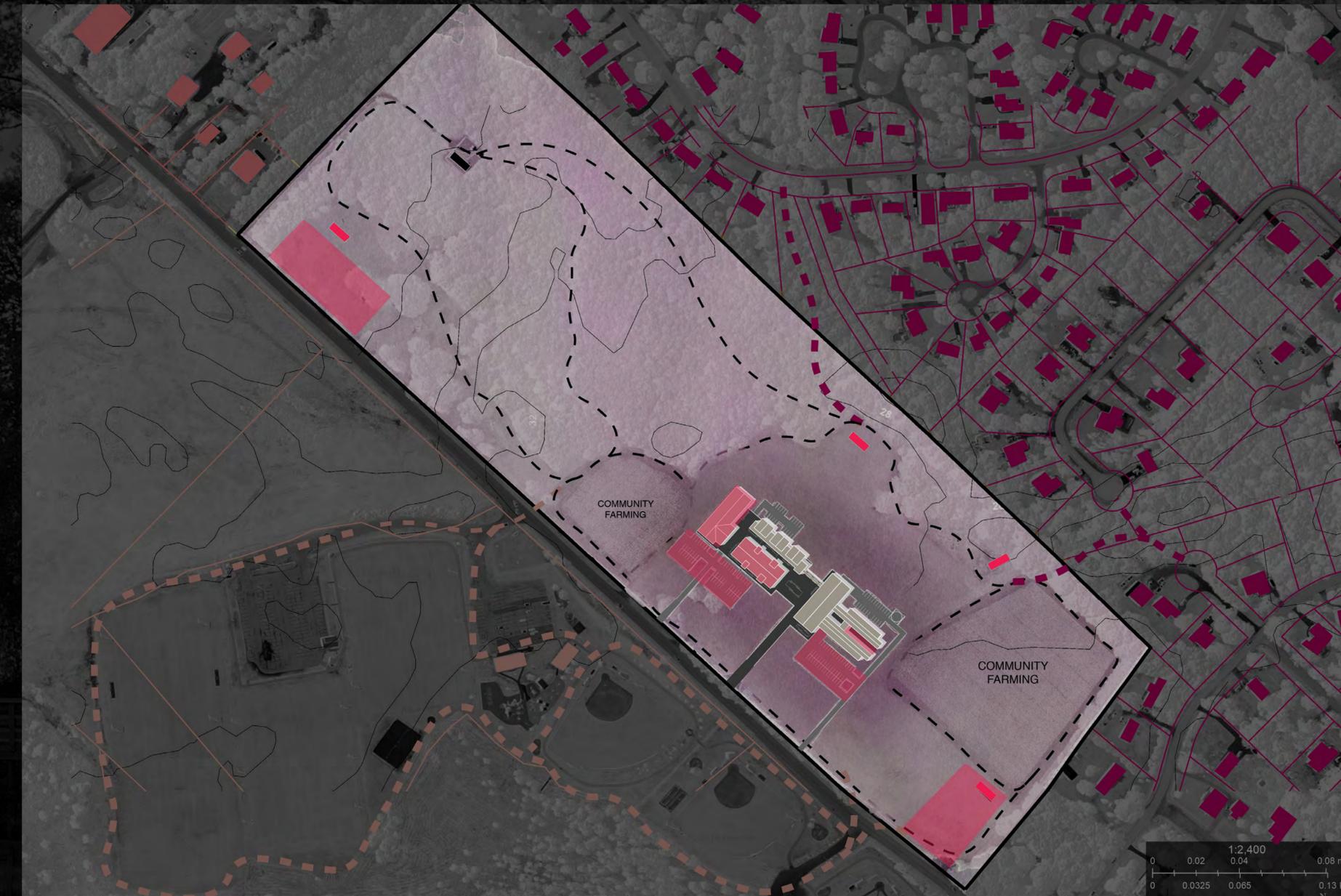
*A SHELTER OPTION THAT PROVIDES A COMMUNITY FOR EVACUEES WITH PRIVACY + THE ABILITY TO BRING PETS THAT IS STILL LOCAL
VOLUNTEER HOUSING

DISASTER RESPONSE PROGRAM

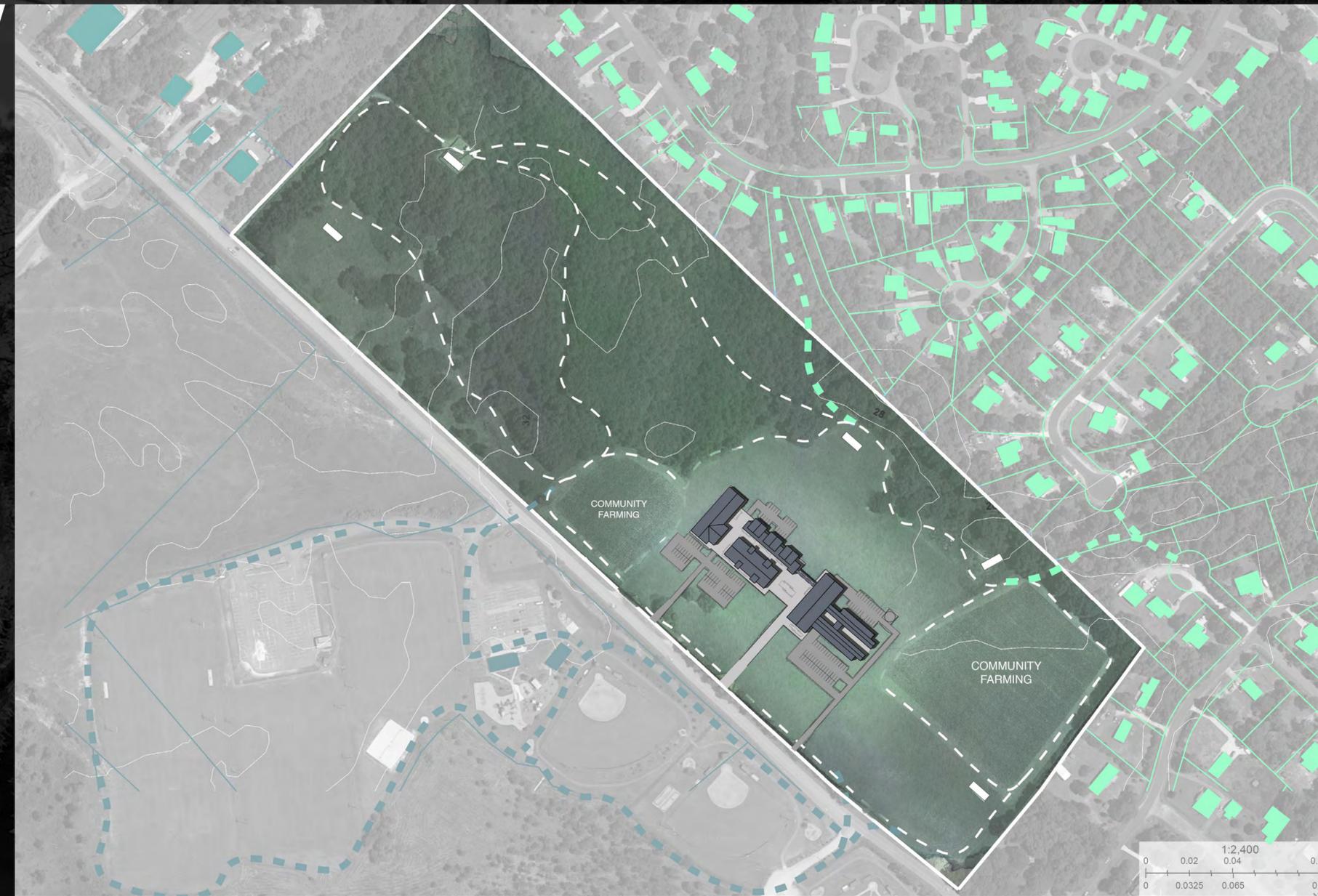
DAY-TO-DAY



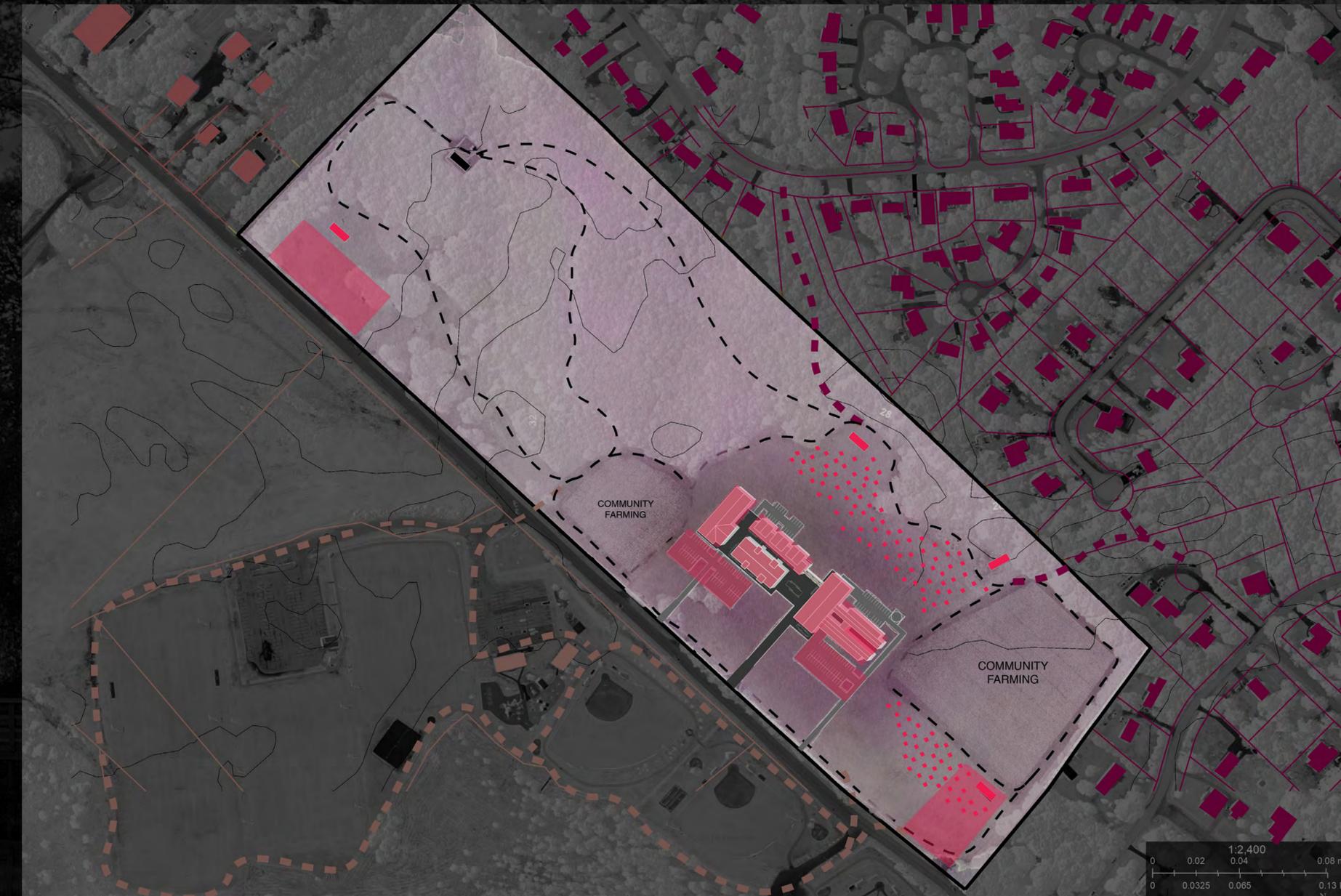
DISASTER RESPONSE PHASE ONE: PREPARATION



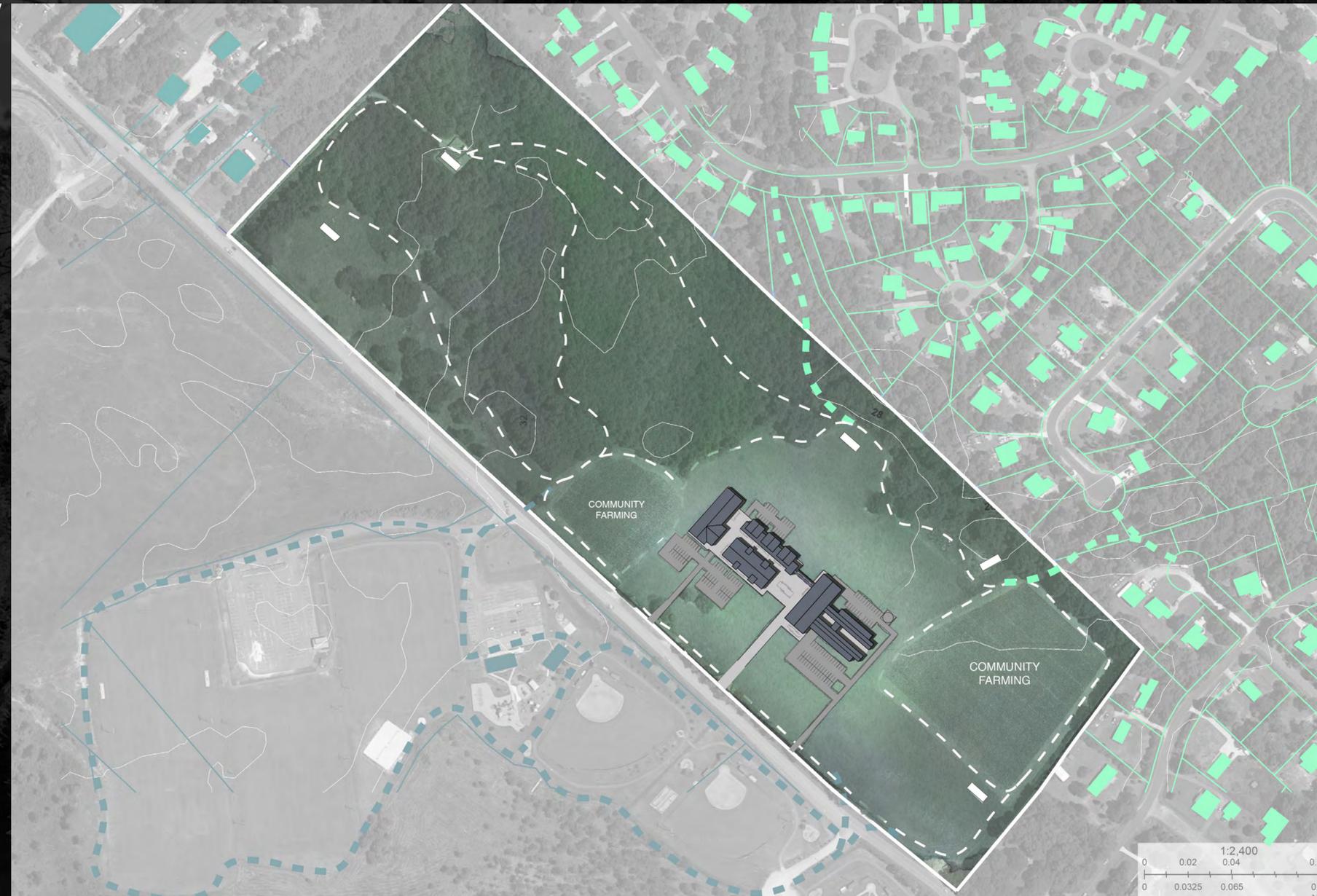
DAY-TO-DAY



DISASTER RESPONSE PHASE TWO: RESPONSE



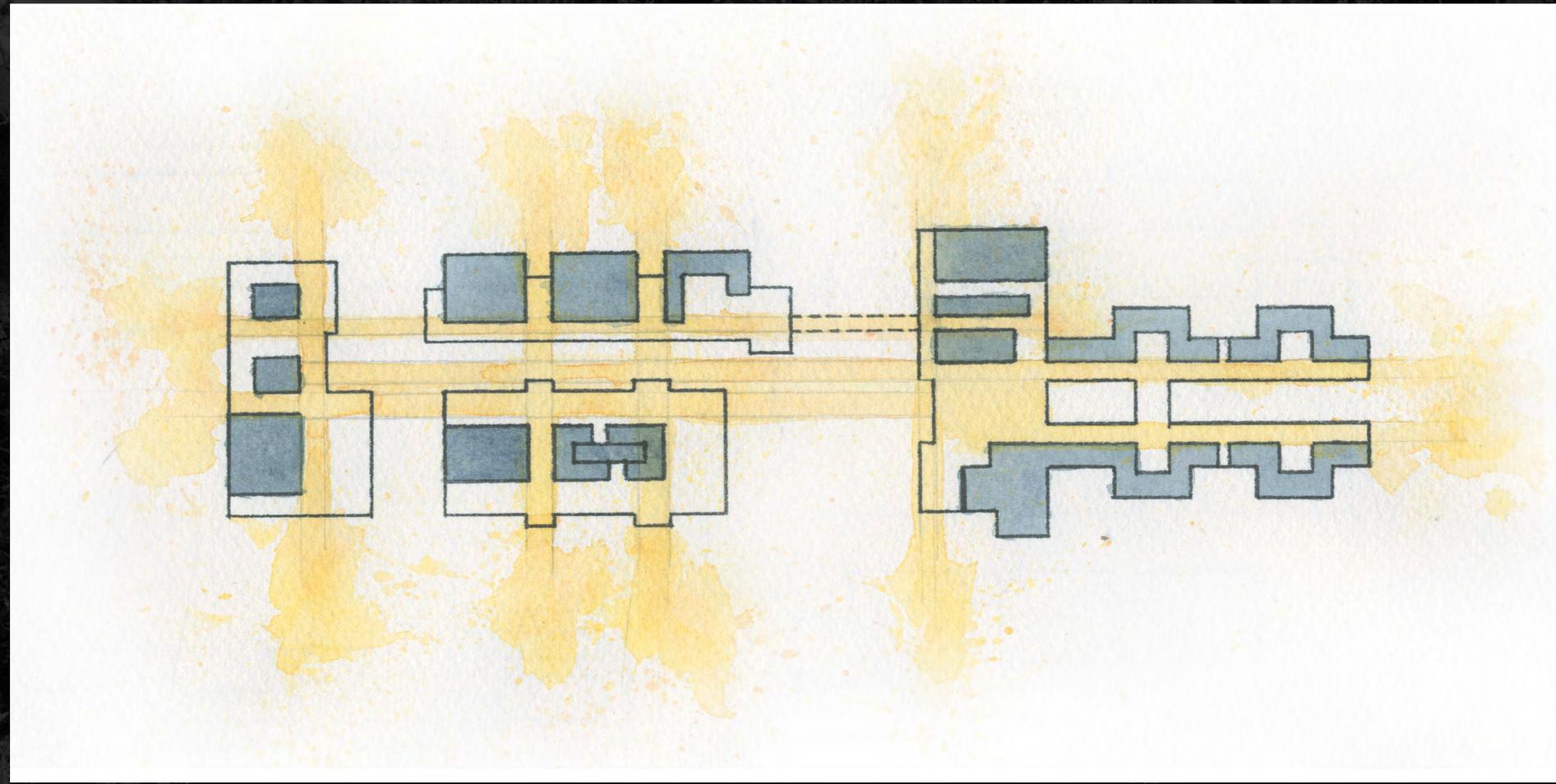
DAY-TO-DAY



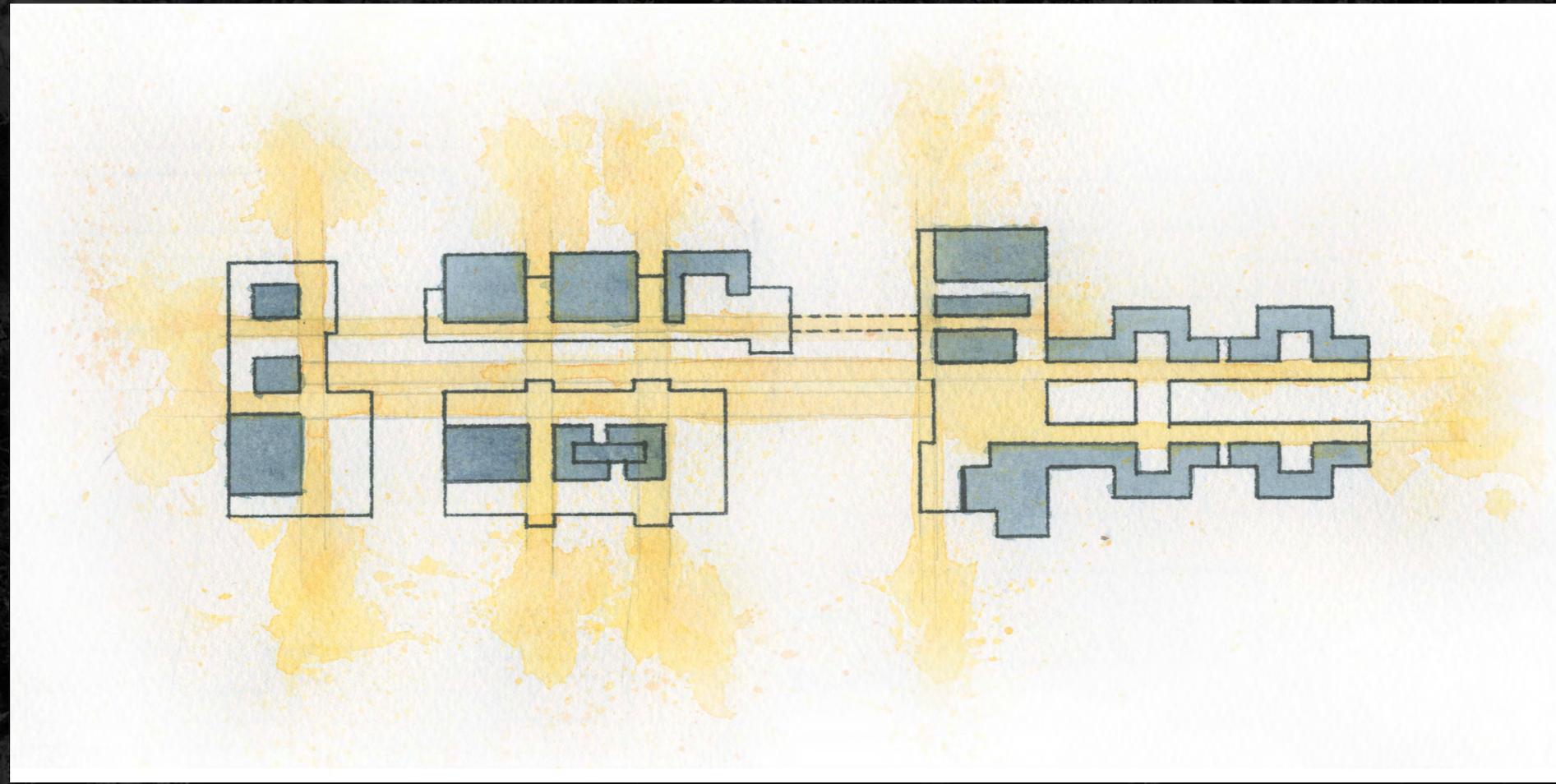
DISASTER RESPONSE
**PHASE THREE:
LONG TERM
RECOVERY**

**PHASE FOUR:
HAZARD MITIGATION +
RISK REDUCTION**

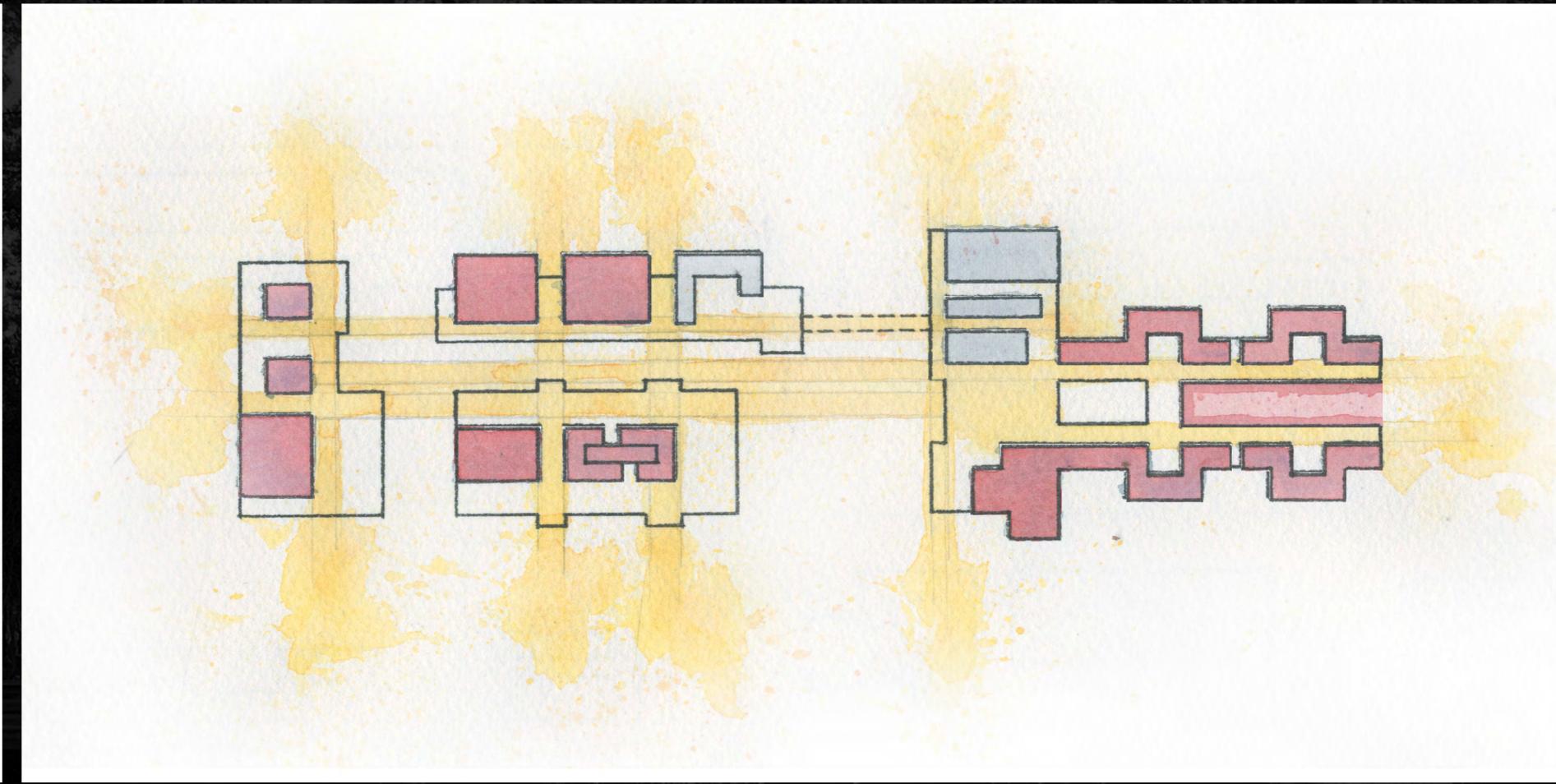
**DAY-TO-DAY
WAYFINDING**

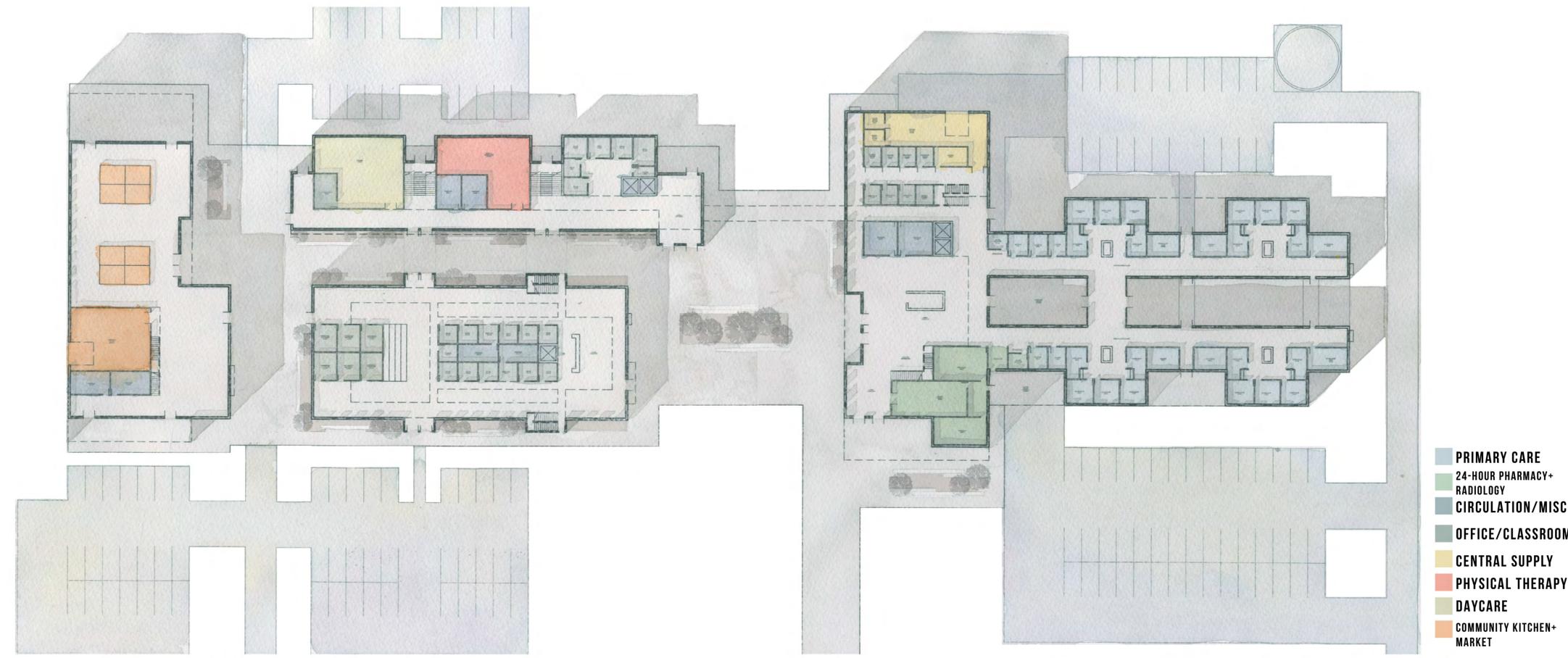


**DAY-TO-DAY
WAYFINDING**



**DISASTER
RESPONSE
PROGRAM**

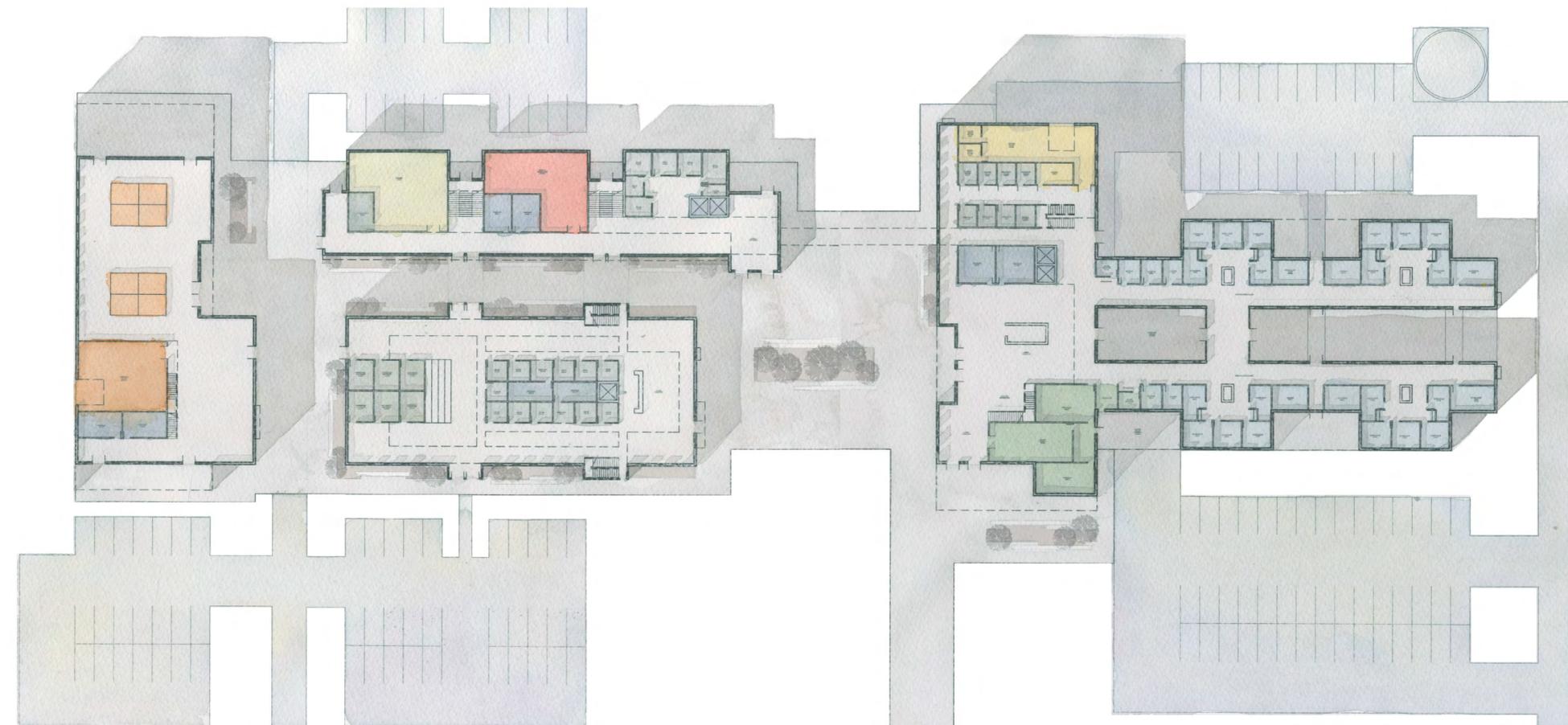




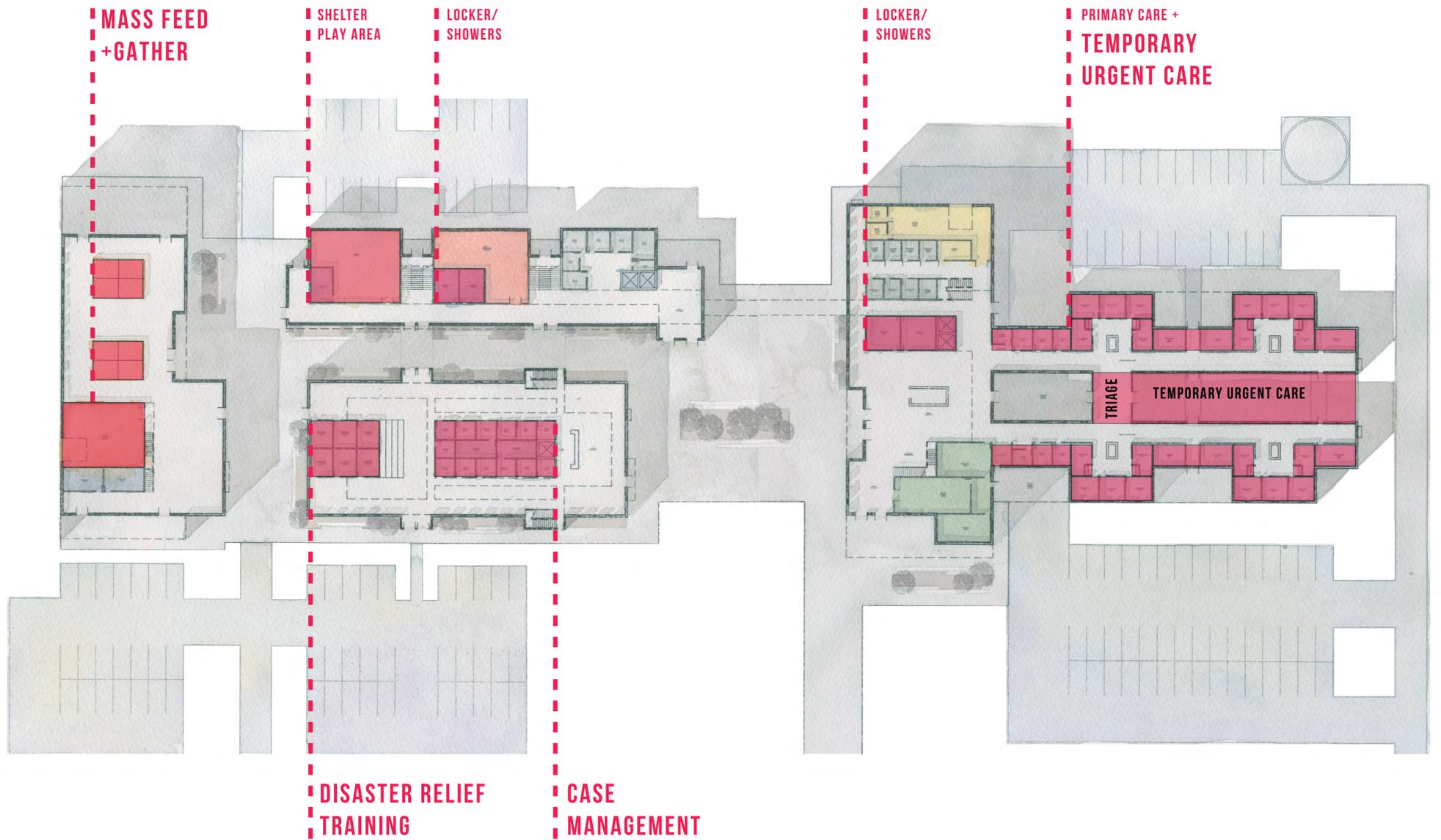
- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET

FLOOR PLAN

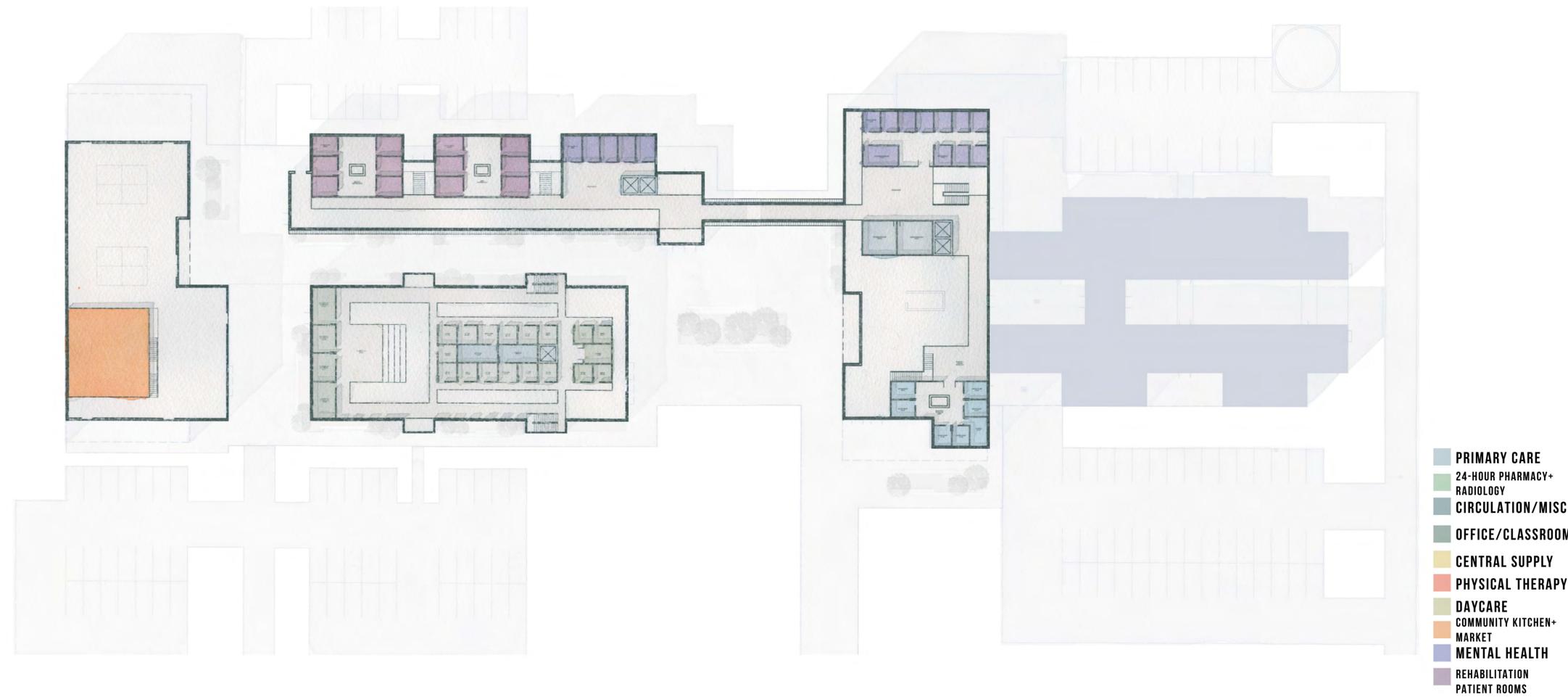
LEVEL ONE



- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET



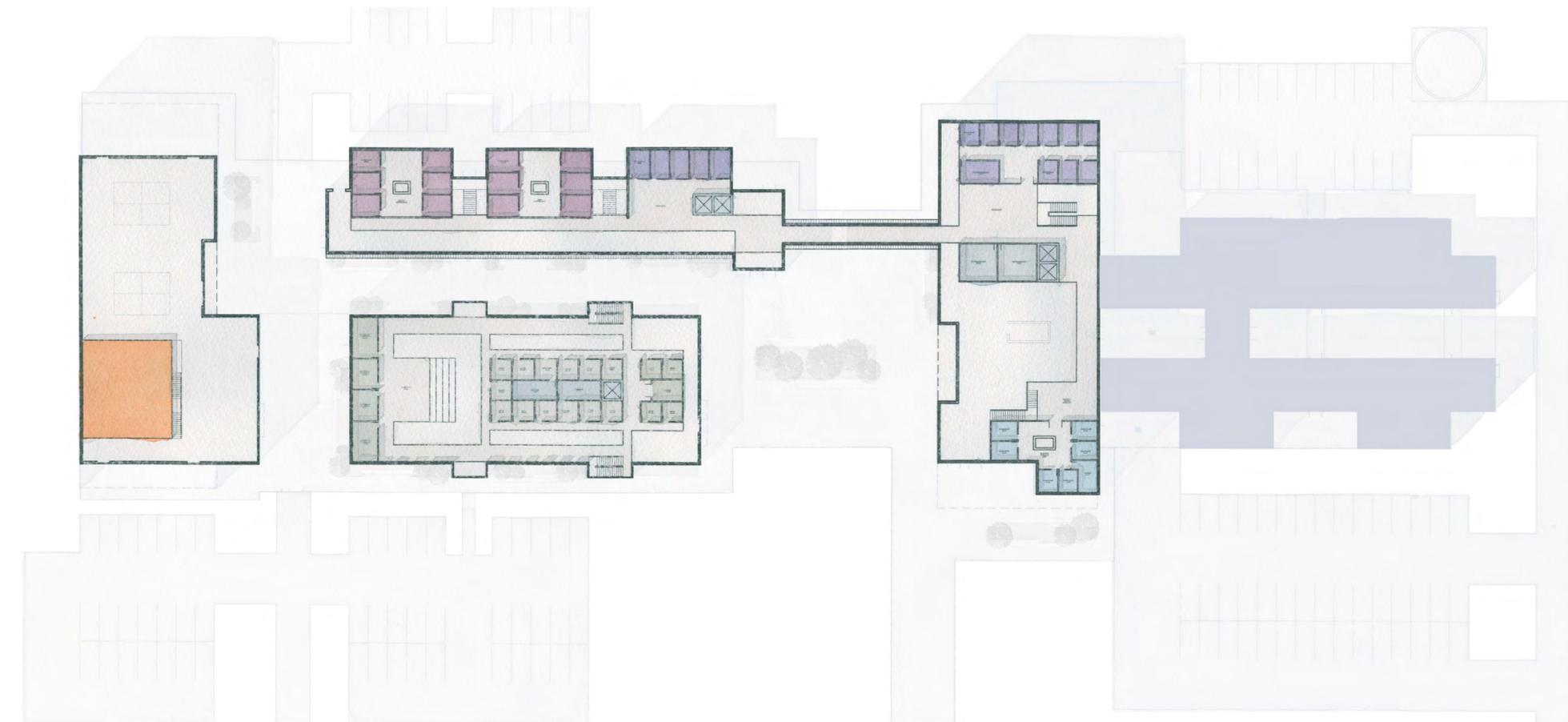
- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET



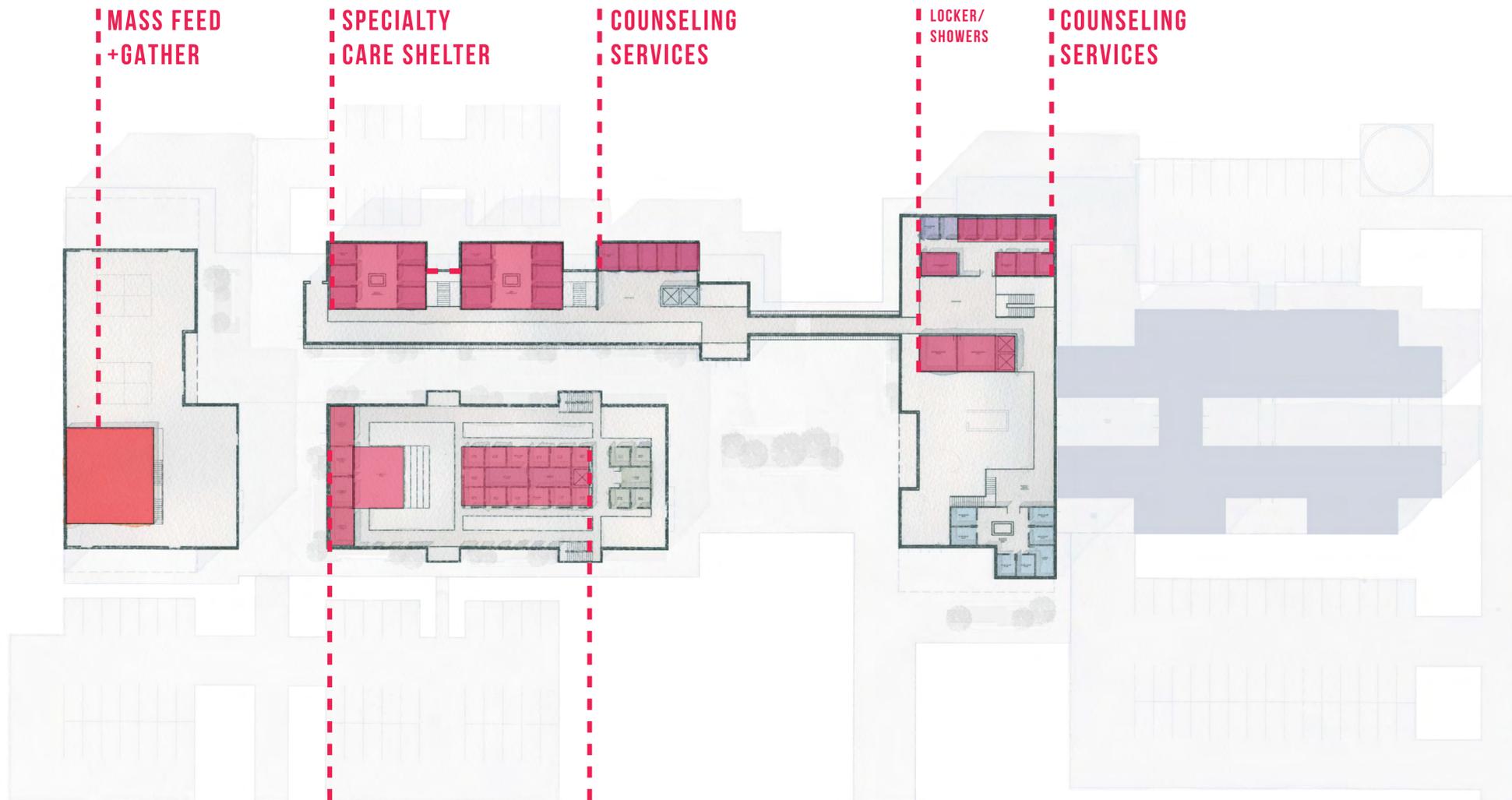
- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET
- MENTAL HEALTH
- REHABILITATION
PATIENT ROOMS

FLOOR PLAN

LEVEL TWO



- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET
- MENTAL HEALTH
- REHABILITATION
PATIENT ROOMS



- PRIMARY CARE
- 24-HOUR PHARMACY+
RADIOLOGY
- CIRCULATION/MISC
- OFFICE/CLASSROOM
- CENTRAL SUPPLY
- PHYSICAL THERAPY
- DAYCARE
- COMMUNITY KITCHEN+
MARKET
- MENTAL HEALTH
- REHABILITATION
PATIENT ROOMS

DAY-TO-DAY

200 PRIMARY CARE PATIENTS PER DAY

70 MATERNITY PATIENTS

140 MENTAL HEALTH PATIENTS

+12 REHABILITATION PATIENT ROOMS

+20 OFFICE SPACES

CREATING LOCAL JOBS FOR

-HEALTHCARE PROFESSIONALS

(PRIMARY CARE, PHARMACY, REHABILITATION, MENTAL HEALTH, RADIOLOGY, SPECIALTY CARE, ADMIN.)

-SELF EMPLOYED/COMMUTERS

-AGRICULTURE

-EDUCATION

POTENTIAL IMPACT

DISASTER RESPONSE

+100 FAMILIES WITH LOCAL, PRIVATE
SHELTER OPTIONS

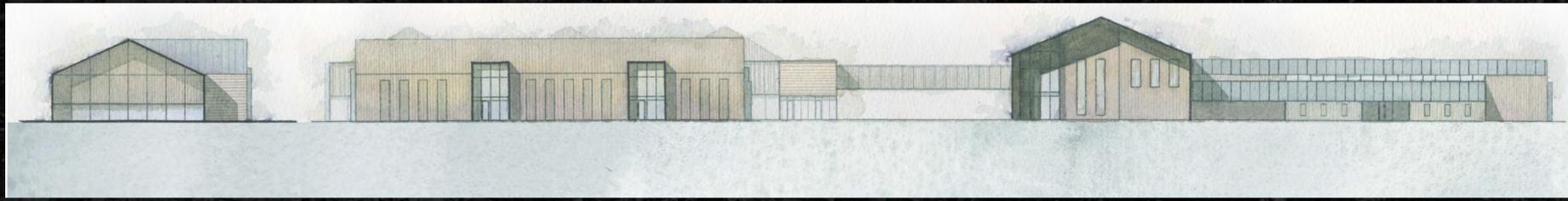
+400 MEALS SERVED PER DAY

ACCESSIBLE URGENT CARE

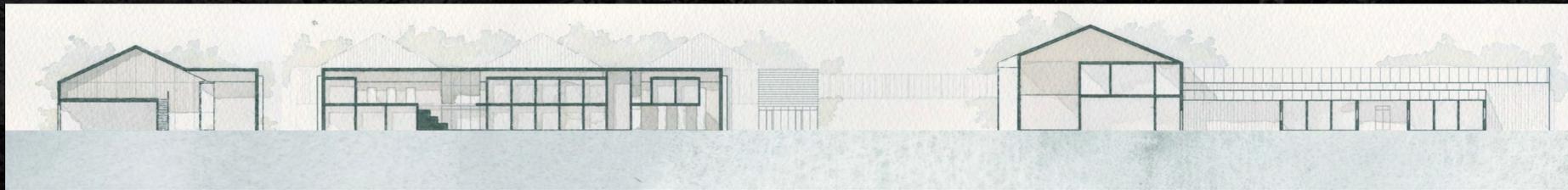
**+ RESIDENTS TRAINED IN
DISASTER RELIEF**



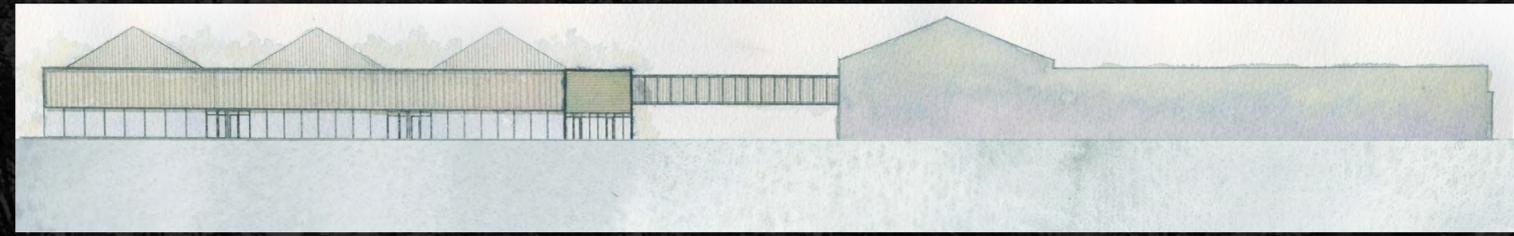
**SOUTH (FRONT)
ELEVATION**



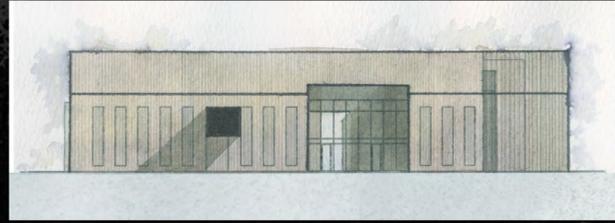
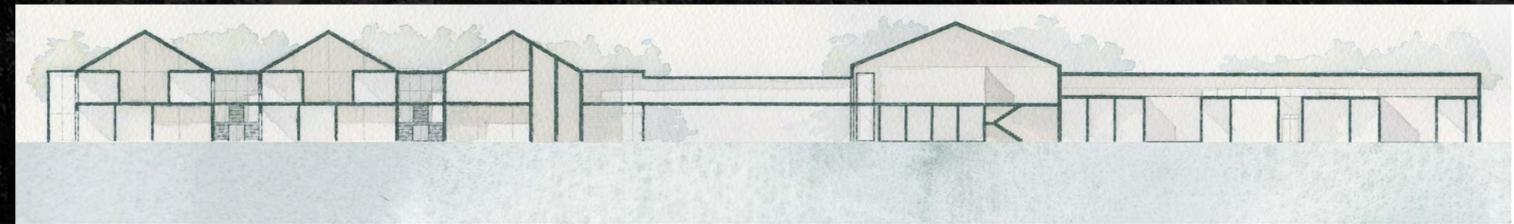
**SOUTH
SECTION
DIAGRAM**



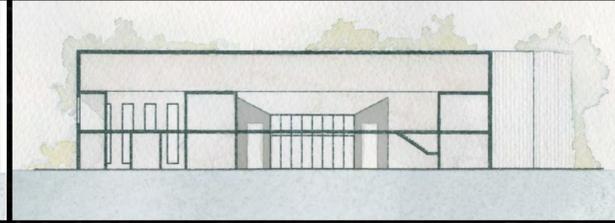
**SOUTH (REHABILITATION)
ELEVATION**



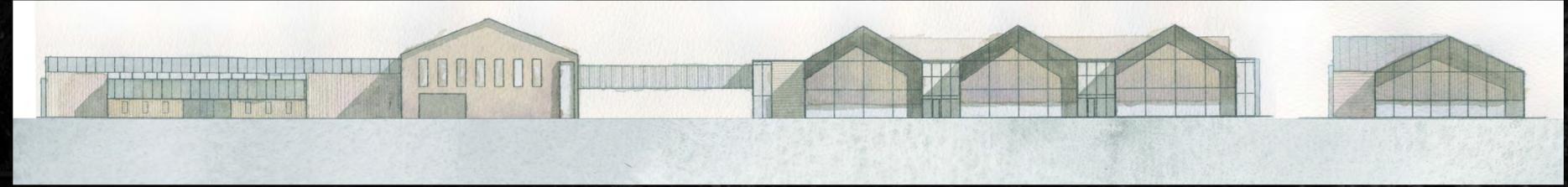
**SOUTH (REHABILITATION)
SECTION DIAGRAM**



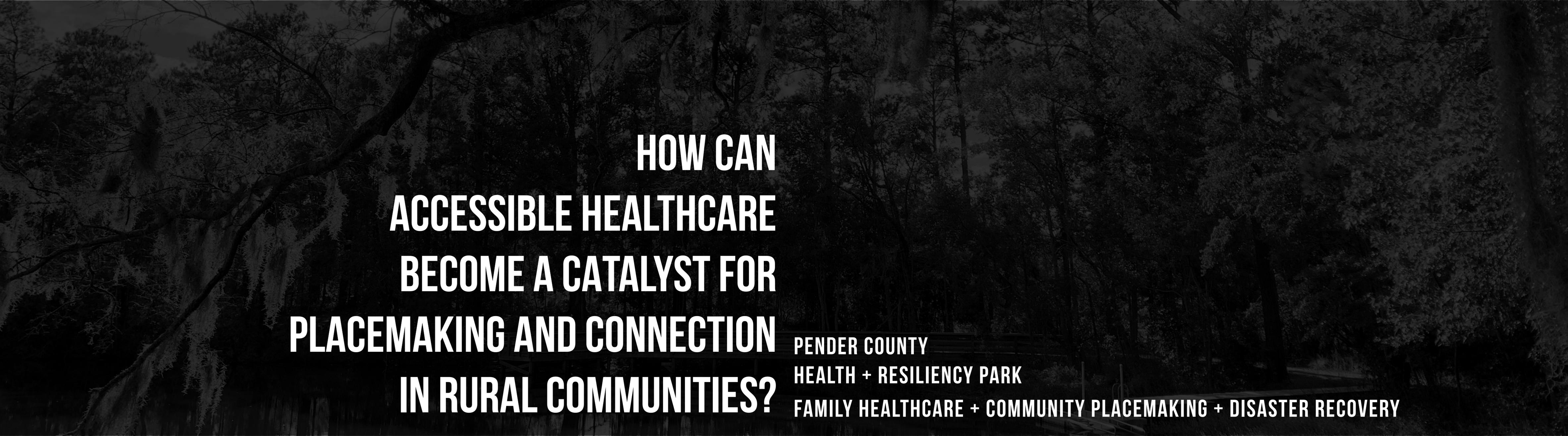
**PRIMARY CARE CENTER
WEST ELEVATION**



**PRIMARY CARE CENTER
WEST SECTION DIAGRAM**



NORTH (REAR) ELEVATION



**HOW CAN
ACCESSIBLE HEALTHCARE
BECOME A CATALYST FOR
PLACEMAKING AND CONNECTION
IN RURAL COMMUNITIES?**

PENDER COUNTY

HEALTH + RESILIENCY PARK

FAMILY HEALTHCARE + COMMUNITY PLACEMAKING + DISASTER RECOVERY

DAY-TO-DAY

PROVIDING:

- ACCESS TO PRIMARY CARE, SPECIALTY CARE, MENTAL HEALTH SERVICES, AND REHABILITATION
- INTERNET ACCESS + RESOURCES
- SAFE PLACE FOR RECREATION
- WALKABILITY
- EDUCATION
- COMMUNITY PLACEMAKING + OPPORTUNITY FOR NEW PROGRAMMING, EVENTS, REVENUE STREAMS

PROVIDING:

- DIVERSE SHELTER OPTIONS
- COHESIVE PLACE OF COMMUNICATION FOR DISASTER RELIEF + RECOVERY
- INTERNET ACCESS + RESOURCES
- SUPPORT IN A TIME OF DISTRESS
- ABILITY TO BECOME A MORE RESILIENT COMMUNITY

DISASTER RESPONSE



ARC 590-009 - TRIANGLE MODERN ARCHITECTURE
SYLLABUS

3 CREDIT SEMINAR

Instructor:

Bryan Bell, Associate Professor
Contact: bbell@ncsu.edu, 919-637-2804
Office: Brooks 305C
Office Hours: To be determined

Guest Lecturers:

Victoria Ballard Bell, Architect, Author, *Triangle Modern Architecture*; Co-author, *Materials for Design Volumes 1 & 2*
Virginia Ferris, Special Collections at D.H. Hill Library
George Smart, Triangle Modernist Houses
Local Architects

Field Trips:

Field trips to visit recent buildings within the Triangle area will be offered during class hours. While field trips cannot be required due to university regulations, the understanding of these buildings as presented by their designers will provide a valuable learning opportunity. Travel restrictions may change due to COVID, in which case, Zoom interviews and other resources will be substituted.

Course prerequisites, co-requisites, or statement on enrollment restrictions:

Open to all BArch students, MArch students, and advanced BEDA students with instructor's permission. Also open to majors outside of the School of Architecture with instructor's permission.

Course Description:

Assessing and critiquing the position of our own cultural context aids our ability to understand our own design in time and place, and to better position it as relevant and meaningful.

The course will research and document the concepts of regional modern architecture, with a focus on the architecture of the North Carolina's "Triangle" area of Raleigh, Durham and Chapel Hill. This examination of local and present architecture will analyze the critical position of the current generation of local architects to give us an understanding of our own position within a historical and geographic context. It will also enable this rising generation to understand how they can use critical assessment tools to stake their own critical design position in this context as well. This knowledge are also valuable for anyone seeks to create more culturally meaningful design.

Course lectures will cover early Modernism principles and practitioners up to the present. Class research will include firsthand sources from the D.H. Hill Historic Archives as well as firsthand interviews with practicing architects. Research of local architects will cover their early influences on their design and how they see their position in this development today. Analysis will include both formal expressions and underlying principles of design. Final projects will be an analysis of eminent local designers work in both written and presentation forms. The resulting description of Triangle Modern Architecture will include both the content of people, time, and place, as well as the principles of materials, geometry and proportions.

Cultural Context:

The Triangle area has a strong cultural base of Modernism in its history that includes buildings designed by many American-based architects who brought to the area the cultural, social and artistic principles of European Modernism.

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The Bauhaus, in Dessau, Germany, had already existed for fifteen years and established their ground-breaking tenets of Modernism before the Nazis shut them down in 1933. In the same year, artist Josef Albers, John Andrew Rice, Buckminster Fuller and other Bauhaus professors and students formed the Black Mountain College near Asheville, North Carolina. This was a pivotal moment in the history of North Carolina arts.

The founding of the first school for architectural education in North Carolina in 1948 was another benchmark in this cultural development. Henry Kamphoefner became first dean of the School of Design at North Carolina State College (later NC State University). Kamphoefner's beliefs were aligned with many of the tenets of Modernism, and his leadership secured the region as a place for Modernism to thrive and grow. Kamphoefner is said to have taken this position in part due to the existence of Black Mountain and the talented artists and designers there that could help grow a great school in Raleigh. Dean Kamphoefner helped to establish the foundations for a legacy of Modernism in the area through the state's first school in architecture.

The decades that followed through today, professors and students from the region have designed and built for themselves and for clients an extensive collection of Modern homes and buildings well suited for critical study and analysis and to give meaningful recognition to this region's design legacy.

Learning Outcomes:

By the end of this course, students will be able to:

- Explain how architecture in the North Carolina Triangle area has evolved since 1948 and how it compares and contrasts to earlier international and local building precedents.
- Evaluate commonalities of a Triangle regional architecture through studying past and present architects and their works.
- Apply research methods including archival investigation and interviews.
- Explain and illustrate through presentation and written essay common characteristics of present-day regional architecture.

Weekly Schedule:

Week 1: Introduction to Triangle Modern Architecture; Tour of HH Harris Studio
Week 2: Archive training and exhibit in DH Hill Archives, Tour of Milton Small office
Week 3: Discussion of Historic NC Architectural Context
Week 4 and 5: Early Modern Architects, Influencers and Principles.
Week 6 and 7: First Generation (Mid-century) Triangle Modern Architects
Weeks 8, 9, 10, 11, 12: Current Triangle Architects' Profiles and Building Tours
Weeks 13, 14: Final Presentations on Triangle Modern Architecture

Bibliography / Resources:

There are no required book purchases for this course. All required books in this course are on reserve at the COD library. These books have been selected for their usefulness in this course and as a future reference:

Triangle Modern Architecture, by Victoria Ballard Bell, Architect

North Carolina Architecture, by Catherine W. Bashir

"Critical Regionalism," essay, by Kenneth Frampton

School of Design: The Kamphoefner Years 1948-1973, by Roger H. Clark, FAI

Additional articles will be assigned and provided during course as needed.

Readings:

All reading will be available through digital reserves <https://reserves.lib.ncsu.edu/> or through class Google Folder.

Rubrics:

Grading rubrics for writing and class participation are provided through the class Google Drive folder.

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Grading:

Class participation - 15%, 1% for each class (See Participation Rubric.)
Assignment 1 – Reading and Reading Reports, Triangle Modern Architecture, 5%
Assignment 2 – Reading, Reading Reports and Presentations, NC Historic periods: 5%
Assignment 3 – Early Modern Architects: Presentation: 5%
Assignment 4 – Mid-Century Architects: Presentation: 10%, Paper: 10%
Assignment 5.1 through 5.5 – Current TMA Architects/Buildings, Preparation Research Paper: 10%, (2% each)
Assignment 6.1 through 6.5 – Current TMA Architects/Buildings, Analysis and Critique Paper: 15%, (3% each)
Assignment 7.1 – Summarize Triangle Modern Architecture, Paper: 10%
Assignment 7.2 – Personal Influences and Design Principles, Paper and Presentation: 15%

Assessment:

The final semester grade is based on the total number of points scored, and is determined as follows:

Exceptional Work, far over and above the required work.

A+: 98-100 points (undergraduates only)

A: 94 – 97 points

A-: 90-93 points

Excellent Work, somewhat over and above the required work.

B+: 88-89 points

B: 84 – 87 points

B-: 80-83 points

Satisfactory Work, meeting, but not exceeding the required work.

C+: 78-79 points

C: 74 – 77 points

C-: 70-73 points

Unsatisfactory Work, not meeting the requirements of the work.

D+: 68-69 points

D: 64 – 67 points

D-: 60-63 points

Failure, demonstrating a need to repeat the class.

F: Below 60 points

Note that active class participation is part of your grade – see “attendance and participation policy” below and “Participation Rubric.”

Attendance and Participation Policy:

You are expected to attend class every scheduled session, where attendance will be taken. Please refer to: <http://policies.ncsu.edu/regulation/reg-02-20-3> for an understanding of excused absences.

To qualify for an excused absence, you must present an official note explaining the absence, either from a doctor, university official, or other appropriate authority. Failure to attend 2 of these sessions due to unexcused absence will result in a lowering of your grade by one letter (10 points). Failure to attend 3 of the sessions for an unexcused absence will result in a lowering of the grade by two letters (20 points). Failure to attend 4 or more of the sessions due to unexcused absence will result in a failing grade.

Participation in class discussion is a key learning method of the class. Sharing ideas and opinions from readings, presentations. Every student is expected to contribute in each class. A portion of your final course grade (15%) is dedicated to participation in the fifteen class sessions. Participation is required to receive each point credit.

Late and incomplete work:

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Late and incomplete work are unacceptable with the exception of documented illnesses or personal emergencies as specified in university policy. Notice must be sent and accepted by instructor prior to assignment due date. There is an automatic 10 point deduction for a late submission. A subsequent 5 point reduction is imposed for each day that the project is late after the first day. For example, if your paper is 3 days late and the original grade is a 90, your grade will be reduced to a 70.

Incomplete Grades:

A grade of incomplete will be given at the request of a student if he or she was unable to complete an assignment, papers or projects only in the cases of serious illness, documented personal or medical hardships. If the extended deadline is not authorized by the Graduate School, an unfinished incomplete grade will automatically be changed to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) by the end of 12 months if the student is not enrolled, whichever is shorter. Incomplete grades that change to an F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student.

Americans with Disabilities Act (ADA) Policy Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.1) Information can be found at http://www2.ncsu.edu/ncsu/stud_affairs/counseling_center/dss/.

Academic Integrity Statement:

Strict standards of academic honesty will be enforced according to the University policy on academic integrity. Any material from a previous or other course that is re-used or expanded in this class must be identified to the instructor. It is expected that a student's signature on any test or assignment means that you have neither given nor received unauthorized aid. Consult the following website for further details:

http://www2.ncsu.edu/prr/student_services/student_conduct/POL445.00.1.htm.

Health of Students

The mental health, physical health, well-being and the positive learning experience of students are all top priorities for the studio. Due to the COVID-19 pandemic, public health measures continue to be implemented across campus. Students should stay current with these practices and expectations through the [Protect the Pack](https://www.ncsu.edu/coronavirus/) website (<https://www.ncsu.edu/coronavirus/>). The sections below provide expectations and conduct related to COVID-19 issues.

Health and Participation in Class

Out of concern about your health and the health of your classmates and school community, please follow these guidelines:

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, you should not attend any hybrid or face-to-face (F2F) classes and work with your instructor on any adjustments necessary; also follow other university guidelines, including self reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to a F2F class or activity.

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SYLLABUS

- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to make alternative plans, as necessary.
- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to [take care of themselves](#) and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center ([NCSU Counseling Center](#))
- Student Health Services ([Health Services | Student](#))
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: ([Share a Concern](#)).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program ([Pack Essentials](#)).

Community Standards related to COVID-19

We are all responsible for protecting ourselves and our community. Please see the [community standards](#) (which have been updated for 2021) and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 [RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules](#)

Course Expectations Related to COVID-19:

- **Face Coverings:** All members of the NC State academic community are expected to follow all university policies and guidelines, including the [Personal Safety Rule](#) and [community standards](#), for the use of face coverings. Face coverings are required in instructional spaces. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides.
- **Course Attendance:** NC State attendance policies can be found at: [REG 02.20.03 – Attendance Regulations – Policies, Regulations & Rules](#). Please refer to the course's attendance, absence, and deadline policies for additional details. If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.
- **Technology Requirements:** This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).

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SYLLABUS

Course Delivery Changes Related to COVID-19

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course could change accordingly, including from in-person to remote. Regardless of the delivery method, we will strive to provide a high-quality learning experience.

NO LONGER AVAILABLE - Grading/Scheduling Changing Options Related to COVID-19

Two policies, enhanced S/U Grading Option and Late Drop, put in place at the beginning of the COVID-19 pandemic have been discontinued.

In some cases, an option may be to request an “incomplete” in the course. If you are experiencing difficult or extenuating circumstances, you should discuss possible options with your instructor and your academic advisor.

Need Help?

If you find yourself in a place where you need help, academically or otherwise, please review these [Step-by-Step Help Topics](#).

Other Important Resources

- **Keep Learning:** [Keep Learning](#)
- **Protect the Pack FAQs:** [Frequently Asked Questions | Protect the Pack](#)
- **NC State Protect the Pack Resources for Students:** [Resources for Students | Protect the Pack](#)
- **Academic Success Center** (tutoring, drop in advising, career and wellness advising): [Academic Success Center](#).
- **NC State Keep Learning, tips for students opting to take courses remotely:** [Keep Learning Tips for Remote Learning](#)
- **Introduction to Zoom for students:** <https://youtu.be/5LbPzzPbYEw>
- **Learning with Moodle, a student’s guide to using Moodle:** <https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226>
- **NC State Libraries** [Technology Lending Program](#)



Foundations & Principles

Aubrey Sterling





Aubrey Sterling

Umstead Retreat

- Minimal material palette
- Intertwining built and natural structures
- Public spaces
- Series of thresholds
- Evocation of particular feelings



Frank Lloyd Wright

Falling Water

- Integration of architecture into landscape
- Design cues from nature
- Blurring inside and outside





Frank Lloyd Wright

Pope-Leighey

- Integration of architecture into landscape
- Design cues from nature
- Blurring inside and outside
- Private v public
- Reduced material palette



Eduardo Catalano

Catalano House

- Structure as form
- Natural geometries
- Modernist glazing and structural strategies
- Private v public





George Matsumoto

Matsumoto House

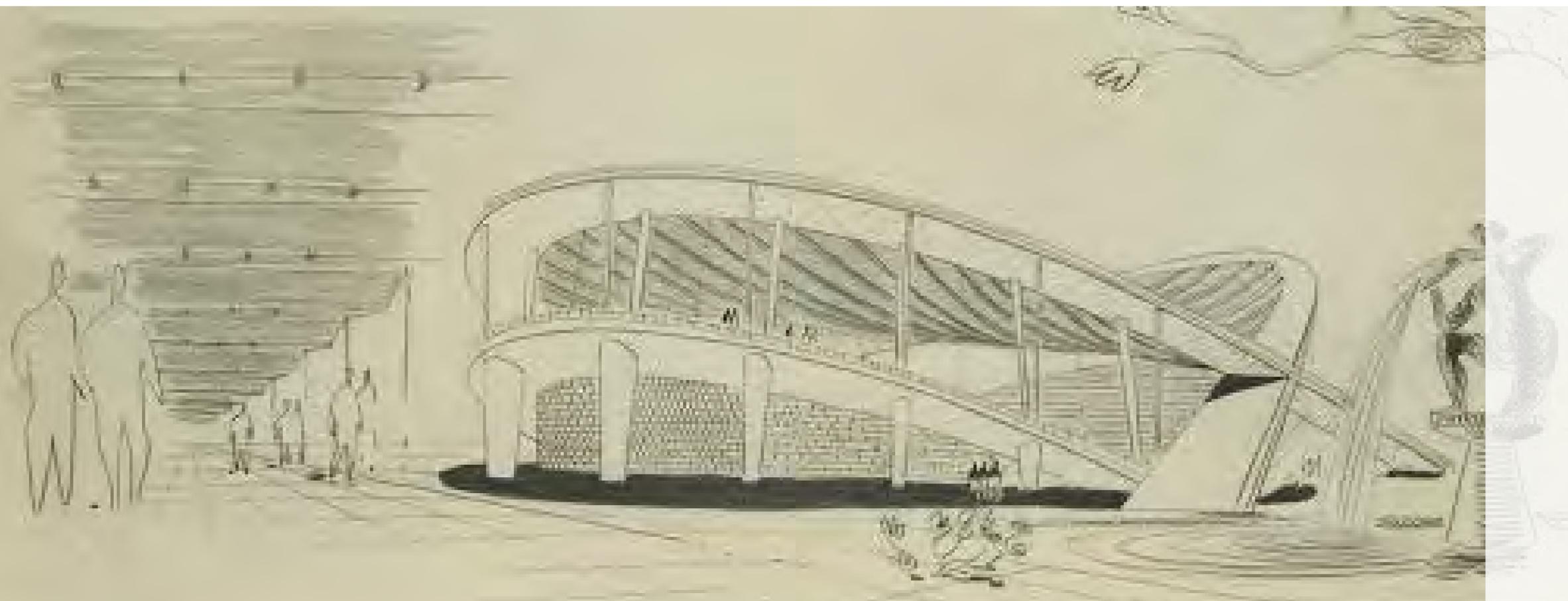
- Unobstructed interior view across length of project
- Horizontal glazing
- Natural light and open spaces
- Subterranean level in response to landscape



Matthew Nowicki

Dorton Arena

- Structure as form
- Natural geometries
- Modernist glazing
- Object on landscape

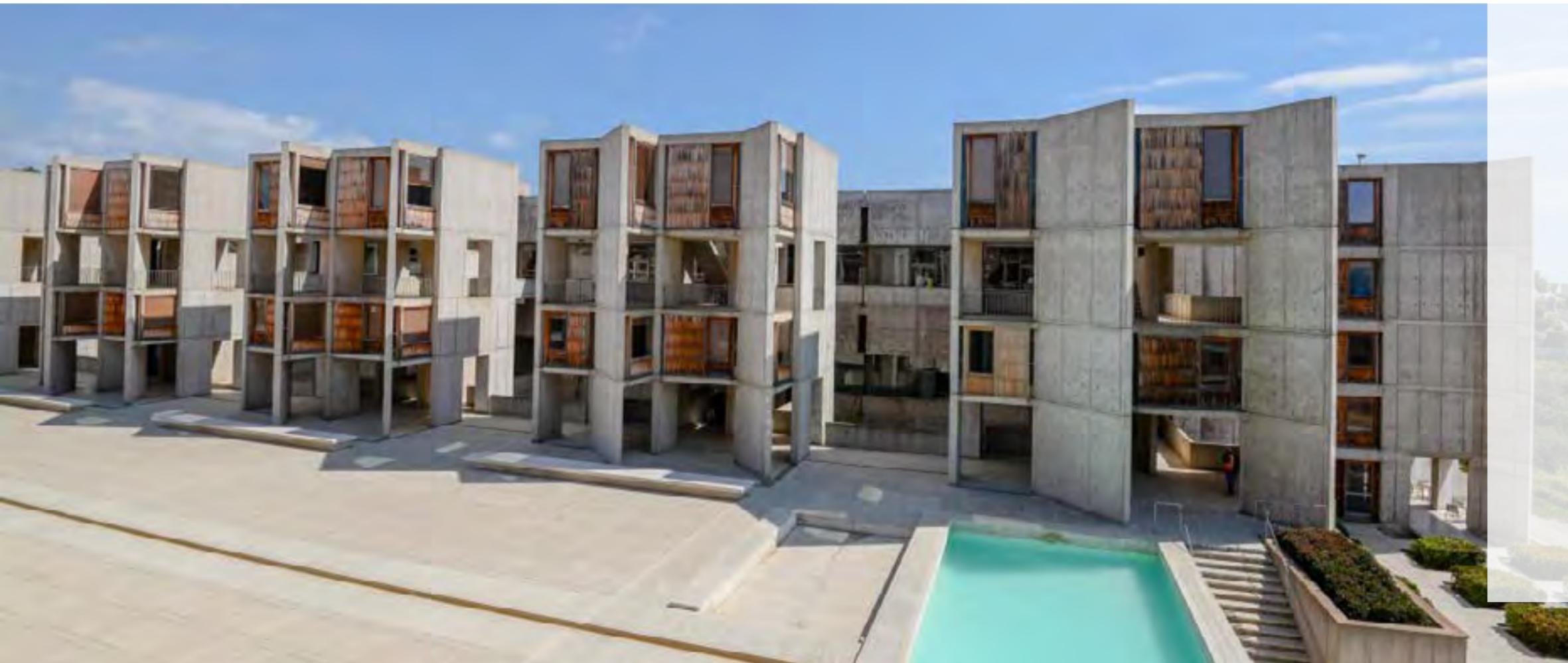




Louis Kahn

Salk Institute

- Part to whole
- Structure as form
- Monumental form
- Raw materiality
- Reduced material palette
- Natural light
- Man-made nature

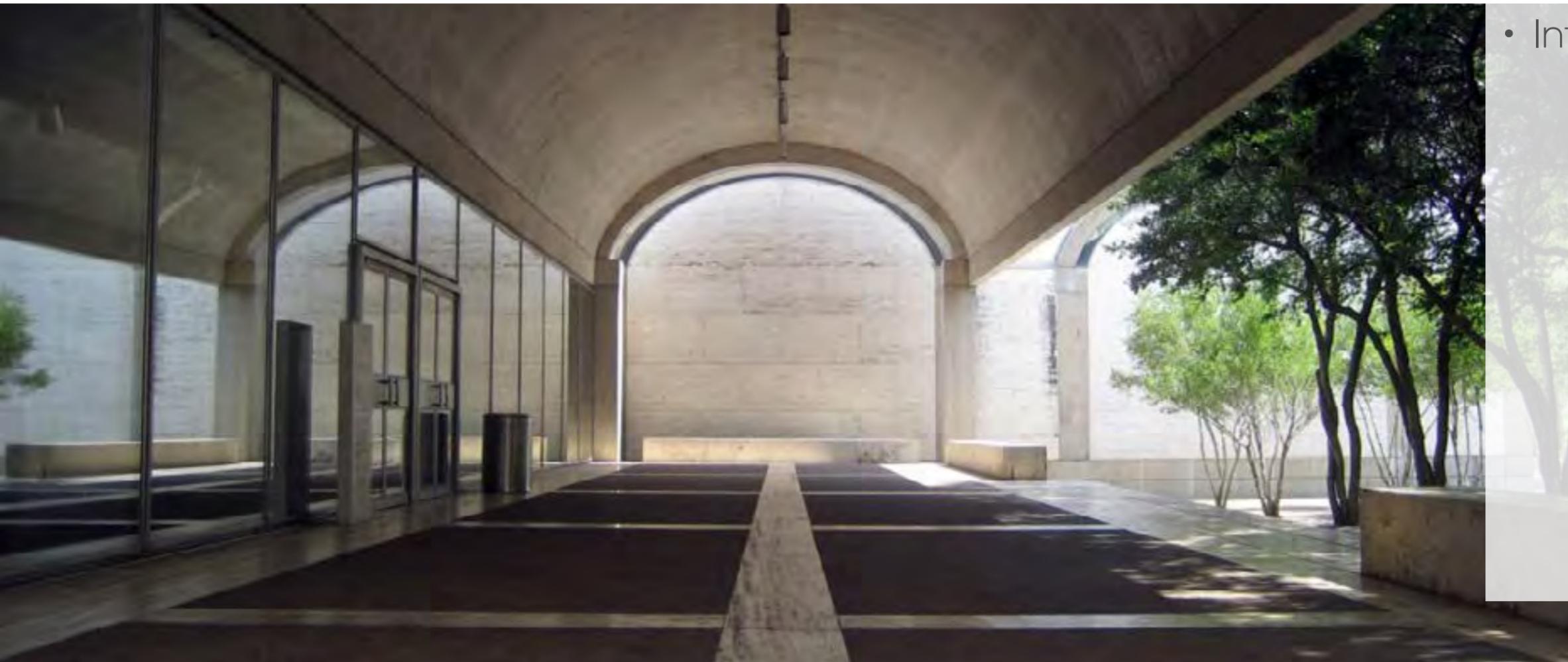




Louis Kahn

Kimbell Art Museum

- Part to whole
- Structure as form
- Monumental form
- Raw materiality
- Reduced material palette
- Natural light
- Man-made nature
- Integrated systems



Eero Saarinen

TWA Terminal

- Object on landscape
- Relationship to time-permanence and order v change and process
- Respect for function
- Expression of meaning

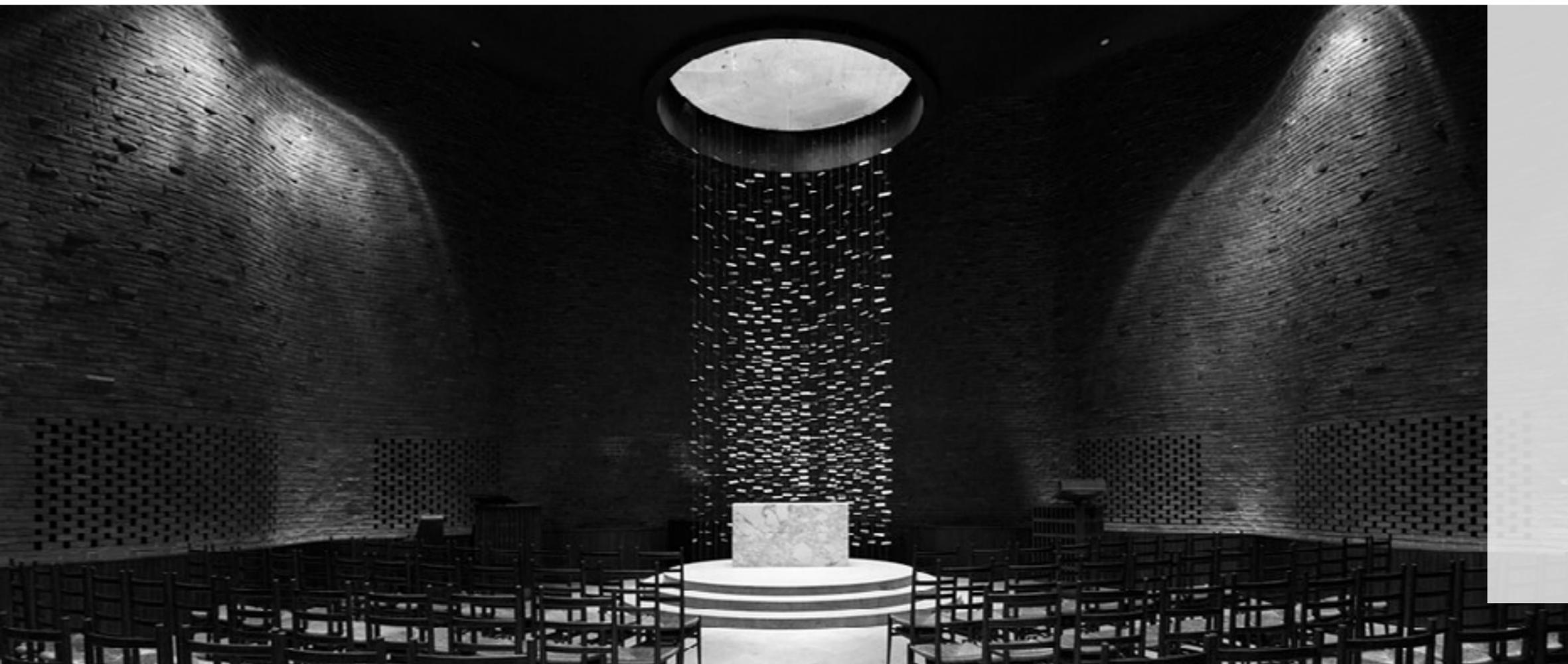




Eero Saarinen

MIT Chapel

- Object on landscape
- Relationship to time-permanence and order v change and process
- Respect for function
- Expression of meaning





Tadao Ando

Museum of Modern Art

- Part to whole
- Structure as form
- Raw materiality
- Natural light
- Man-made nature
- Reduced material palette
- Circulation as meditation

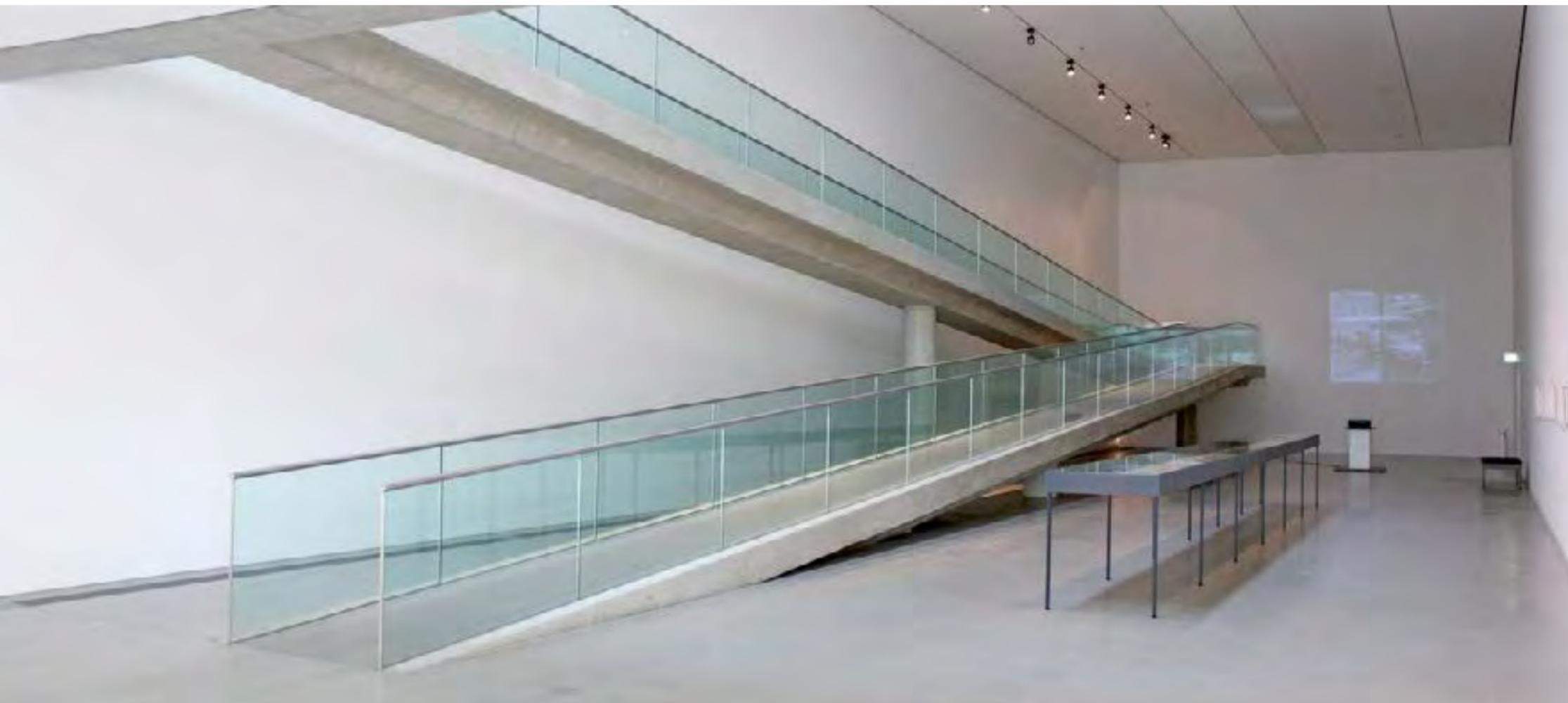




Tadao Ando

Langen Foundation

- Part to whole
- Structure as form
- Raw materiality
- Natural light
- Man-made nature
- Reduced material palette
- Circulation as meditation





Frank Harmon Harmon Residence

- Human scale
- Natural light
- Relationship with landscape
- Solar orientation
- Multi-sensory experiences

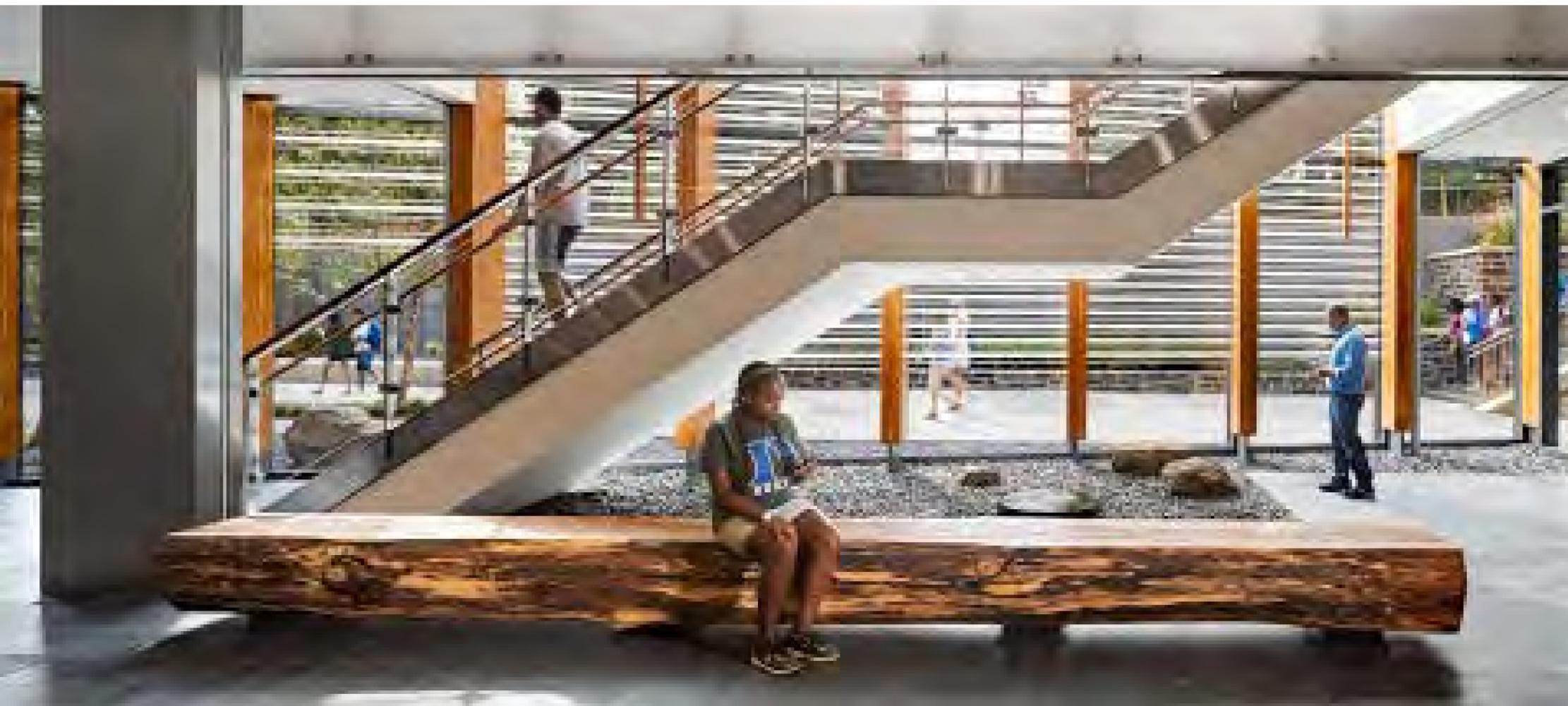




Turan Duda

Duke Wellness Center

- Part to whole
- Cinematic sequence of spaces
- Integration with landscape
- Series of thresholds





Frank Harmon – Building Analysis

Frank Harmon, a North Carolina native, started drawing inspiration from his surroundings at a young age. This initial connection with nature continued to influence his work throughout his career. His interest in the world around him and art led him to pursue architecture at North Carolina State University. The importance of travel and direct experiences in education encouraged his decision to move to London to obtain his master's at the Architectural Association. He used his love of sketching to document the various places he visited. Upon returning to the US he founded his practice, Frank Harmon Architect, in 1982 in his home state of North Carolina. It is here in North Carolina where he carried out most of his work and became internationally acclaimed for his non-stylistic, rooted in place approach to design.

One building that is exemplary of this approach is his own home, the Harmon Residence. Designed with his wife Judy, a landscape architect, the goal was to design a compact home in a garden within a dense neighborhood situated next to NCSU where Harmon served as a professor. Present on the lot were four large oaks and two mulberry trees, it was important for the Harmon's to preserve these. This resulted in the house being centered on the southern side of the site 5' from the perimeter wall that would provide privacy. This left them with a 200-foot-long garden space to the north. This orientation also allowed for ample light on the southern façade to heat the home throughout the day and provide an even amount of sunlight for the garden.



Figure 1: North entry view from outside perimeter wall.

SOURCE: <https://www.frankharmon.com/projects#/harmon/>



Figure 2: Cross section through Harmon Residence and site.

SOURCE: <https://www.frankharmon.com/projects#/harmon/>

The use of sunlight, connection to the site, and climate are very evident in this design. As stated previously, an important design constraint were the existing trees on the site. In order to prevent damage to the existing root structure, the home was built on fourteen concrete piers. Glass and steel were also used to enforce this idea of a light-compact design. The home and site being elevated from the street heightened the effectiveness of the privacy wall while still utilizing expansive glass to allow views out. A nod to one of his influences, Le Corbusier, butt glazed glass can be found in the corners of the home promoting a free-flowing connection from inside to outside. Additionally, windows in the home are operable for passive ventilation in the summer as the original intent was to obtain from using air-conditioning. A fireplace is used for heating during the winter months.



Figure 3: Interior communal space viewing east towards pool and garden. Butt glazed corner circled.

SOURCE: <https://www.frankharmon.com/projects#/harmon/>



Figure 4: Northern glass façade looking out onto garden space.

Harmon often refers to the residence as his “oasis”. The seamless integration of structure and garden are what make this project, as well as a multitude of others, very successful. Harmon prioritizes the place over any stylistic approach and to this he credits Harwell Hamilton Harris, a colleague of his during his time at NCSU. The importance of the client, context, and climate are still to this day rooted in his philosophy and are what make Frank Harmon’s body of work an influential part of North Carolina’s Modern Architecture.



Figure 5: Second floor bedroom receiving southern light filtered through glass block.



Figure 6: Sunroom adjacent to kitchen receiving southern light.

Jack McManus

4/2/2020

Triangle Modern Architecture

Dennis Stallings Conversation Reaction:

A figure in triangle architecture since moving to the area 40 years ago, Dennis Stallings has established his influence over the Piedmont's built environment through his work with the Freelon Group, Pearce, Brinkley, Cease + Lee Architecture and the Raleigh office of Clark Nexsen. He has also had a significant presence within NC State's School of Architecture, having graduated from the school's Bachelor's and Master's degree programs before returning to instruct new generations of students in 1993.

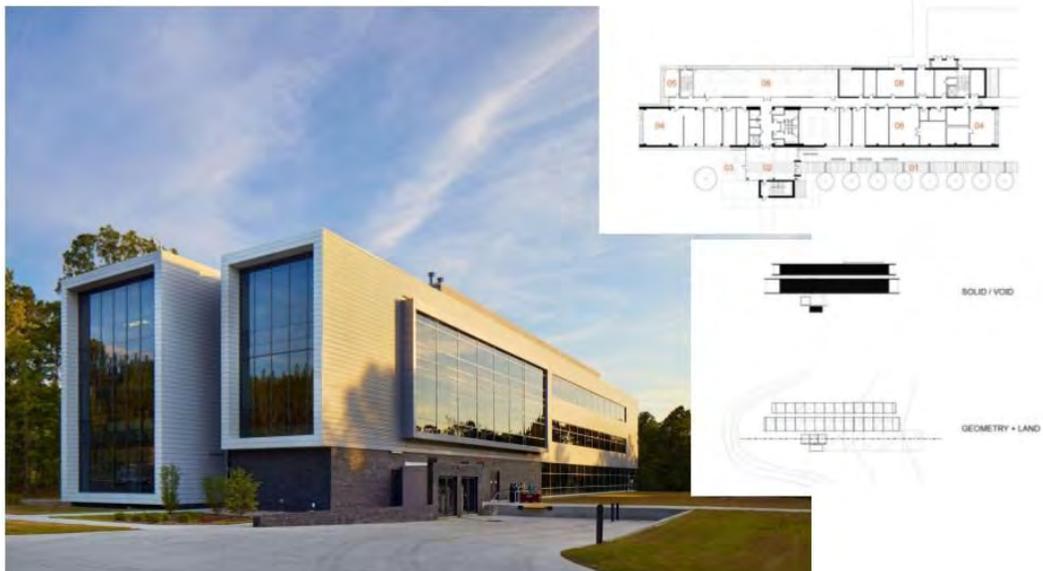
Stallings traces many of his principles as an architect back to formative classes he took at NC State with professors like Roger Clark and Paul Tesar. These academic experiences translated directly into principles that would guide his future practice, especially in how diagramming, both on paper and mentally, can assist in creating a building with the crucial quality of clarity. Stallings places a strong emphasis on clarity as the quality of being able to understand a building on multiple levels; not only as an object or a product but also a recognizable underlying idea and cohesive experience. These are the qualities of architecture that elevate building design beyond the constraints of basic engineering and structurally-sound construction.

Roger Clark's analytic process of diagramming provides a useful method of learning to understand a building's core idea in a way that an architect can practice to the point that it becomes part of their inherent perspective and viewpoint as an observer of the built environment, but Stallings also explains that he understands the limitations of a primarily diagrammatic approach. He says that buildings, in all their complexity and cannot simply be extruded from a simple diagram, but at the same time it is crucial that design decisions within a project be made in a way that relates back to a central concept, such that interrelated elements like proportion, structure, opacity and materiality serve the aligned function of advancing or reinforcing the same ultimate intention. This helps a building function as a cohesive whole entity and create a memorable, specific experience; particularly one that does not require training in architecture or having previously seen a designer's parti drawing.

A unique element of regionalism that Stallings also names as an influence on his work and the canon of Triangle modern architecture is the benefit of strong personal relationships between local practitioners. Stallings is an active member of the Triangle Architecture Design Society, known as TADS -- a friendly group of accomplished local designers initially organized by Phil Szostak who gather to offer each other advice on ongoing projects. Not only does this peer-to-peer connection help bring a new perspective to solving design problems, but it also helps build a common vocabulary and pool of ideas amongst the region's prevalent builders, thereby advancing a common regional character as well as a high standard of design within the local market.



Diagram, plan and rendering of Clark Nexsen scheme for University of Miami Student Village, showing relationship between diagram and final design strategy



Photographic view, plan and diagrams of Clark Nexsen's Bioprocess Innovation Center showing relationship between diagram and final building design.

John Durkee

Triangle Modern Architects

Spring 2020

Final Paper

Art, Architectural & Science

Science and art are two means to the same end. Both explore the human condition, and our relation to the known. Both experiment, through installation or experiment, and add to the common trust. Revolutionary architecture requires the rigor of a design of experiments, and the universal connection to a sculpture. I aspire to be a scientific artist; logic for both the joy of discovery and as a means to human connection.

Before architecture, I was a creative scientist. I worked at a monied startup. The risk of litigation and our culture of self accomplishment rejected precedent study. However, in my first year within NCSU's architecture program, Ellen Weinstein was a strong proponent of history. We were taught to understand the layers of an urban context, and to recognize them as responses to the site's practicalities and people [Fig 1]. New designs should react to that built context, but remain free to pursue solutions outside of their canonical "style". The extant built environment was only one of many possible architectural solutions. Ellen practiced this methodology, as seen at the Pullen Baptist Memorial Church [Fig 2]. The new chapel matches the neighborhood's scale, and clearly reinforces the existing church's central plaza and spiritual intent, but eschews its materiality and ornamentation. Ellen further emphasized that you should question a place's program, the nature of its performance. Of the multitude of architects that

have questioned their project's brief, Eero Saarinen connected to me as a programmatic explorer. Having grown up in Washington DC, I was exposed to Dulles Airport at an early age [Fig 3]. Saarinen had been asked to invent the procession and program of the first terminal for jet propelled airplanes. The airport must be able to expand with the addition of new airlines, while keeping walking distance low. Saarinen's brilliant concept was the "mobile lounge" [Fig 4]. The architecture itself would be like an opulent ferry boat, bringing travelers directly from the main concourse to their plane. The program turned out to be an utter failure, but to have the bravery to suggest such a simple and beautiful concept drives me to rethink a project's program in the early stages. As many of my own projects have failed as succeeded, and I've gained from each of them.

My last years as an applied scientist were fraught with pride and burnout. We had transitioned from a year of exploratory research into a mass-produced product based on the work. The product's form was derived by the optical properties of acrylic and the constraints of its manufacture. In my second semester at NCSU's program, I was introduced to architects who also worked with the rules of physics and the economics of custom manufacturing: Felix Candela and SHoP Architects. The former represents a time before computers, while the latter is at the cutting edge of contemporary digital design. Both use algorithmic design, they relied on mathematical tools to shape their architecture. Felix blended structure with form and created extremely thin compressive shells of concrete [Fig 5]. His structures flowed and skimmed through the air, defying gravity. Without the mathematical curves to define minimal-bending spans, his designs would not have been able to withstand gravity. SHoP does not work with structure, they are unrestricted by load paths. However, they are limited by economics and manufacturability. SHoP leverages their home-built software to translate complex curves into

rapidly-manufacturable assemblies. At the Mulberry house, SHoP created designs that no traditional contractor could build [Fig 6]. It was only through their knowledge of digital-aided manufacturing that their forms could take shape. I hope to be able to develop the spatial skills to match the flexibility of digital manufacturing, because the coding process has grabbed me so strongly. I used digitally-controlled light in a group project here in Raleigh. The team members of The Leading Strand Project used a CNC milling machine and custom code for an Arduino computer to create an interactive experience in Raleigh [Fig 7]. The ability to work in code resonates with me, and I continue to search for architects who successfully blend it into their workflow.

One of the main draws of architecture over product design is the community. Architects are much more willing to share their discoveries and products. Architects should share their progress. Corporate research's biggest downsides were the need for secrecy, and the bottom line as the deciding factor for all decisions. I'm drawn to other researchers. The best projects are those that act as experiments for developing ideas. No firm is as conscious and forward with this drive as Kieran Timberlake architects. Many of their projects look at multiple scales of architecture, from the urban scale down to material specifics, and experiment on how to revolutionize their use. In particular, the Loblolly House was an experiment in prefabrication [Fig 8]. KT built the on-site components of the home through the use of premade subassemblies and a standard construction frame. Both the subassemblies were brought from other professions. The subassemblies were inspired by automobiles, who receive parts in premade sets like doors or electronics harnesses, while the frame was built from off-the-shelf "tinker toys" designed for assembly line setups. The Pompidou Center is another pivotal piece along the same theme. It also uses factory-made parts, but exerts a different sort of mastery. The structure is mass

produced, a “factory of culture”, but each piece is expressive of its specific role. The “gerberette” structure combines all my aspirations: structural clarity and beauty [Fig 9].

It's one thing to find ways to make things, but what do you do with that knowledge? Le Corbusier and Peter Zumthor are two of my strongest influences in this camp. Particularly, their creations are emotionally stimulating. Before studying architecture, I came across the Villa Shodan by Corbusier. The building is a honeycombed concrete cube, full of different spatial arrangements and proportions [Fig 10]. I was entranced by the relationship between spaces, the overhangs and precipices all created by a simple monolithic material. The focus on spatial arrangements as the primary medium of architecture has stuck with me since. Similarly, and since studying under Thomas Barrier at NCSU, I was introduced to Peter Zumthor's deceptively simple materiality. Zumthor takes concrete to the next level at the Bruder Klaus chapel [Fig 11]. Apparently, the blackened surfaces still bear the smell of ash and flame. After erecting the central wooden formwork, it was “struck” aflame and allowed to collapse. The leftover walls are otherworldly and distinctly befitting a spiritual shrine.

Architecture should facilitate connections between people. Good architecture gives back to the community it's in, and encourages communication between neighbors. These are all lessons from Herman Hertzberger, who was another influence introduced to me by Thomas Barry. Hertzberger wrote “Lessons for Students in Architecture”, which I carried for multiple semesters. In it, Hertzberger describes how to arrange spaces for the best balance of privacy and opportunity for interaction between residents. In particular, Hertzberger coined the “vertical street” and described vertical circulation as part of the semi-public way [Fig 12]. Hertzberger had learned many of these tenants in turn from Aldo van Eyke.

All of these architects, from Herman Hertzberger to Corbusier, showed the best qualities of scientists and artists. They all connected to the world and left behind their research for others to peer review and follow. I aspire to be a scientist architect, a researcher of the best for my community, whose experiments speak to their occupants in an intuitive language of function and beauty. The medium of space cannot be meaningfully manipulated through logic alone, nor can space be created without a logical understanding of our physical world.



Fig 1 - Charleston, South Carolina Landmass

Three overlaid stipple drawings, corresponding to the initial colony, civil war era, and modern era. Reduction in land mass over time shown as cross hatched tape strips.



Fig 2 - Pullen Baptist Memorial Church
Weinstein Friedlin Architects, 2009
Raleigh, NC



Fig 3 - Dulles International Airport (IAD)

Eero Saarinen, 1962

Fairfax, VA



Fig 4 - Dulles Mobile Lounge
Eero Saarinen & Chrysler



Fig 5 - Chapel Lomas de Cuernavaca

Felix Candela (1953)

Cuernavaca, MX



Fig 6 - Mulberry House
SHoP Architects (2009)
Manhattan, NY



Fig 7 - The Leading Strand Project : Force Networks

NCSU Team + Sara Queen (2018)

Raleigh, NC



Fig 8 - Loblolly House

Kieran Timberlake (2006)

Taylor's Island, MD



Fig 9 - Gerberettes atop the Centre Pompidou
Renzo Piano, Richard Rogers, Peter Rice (1977)
Paris, FR



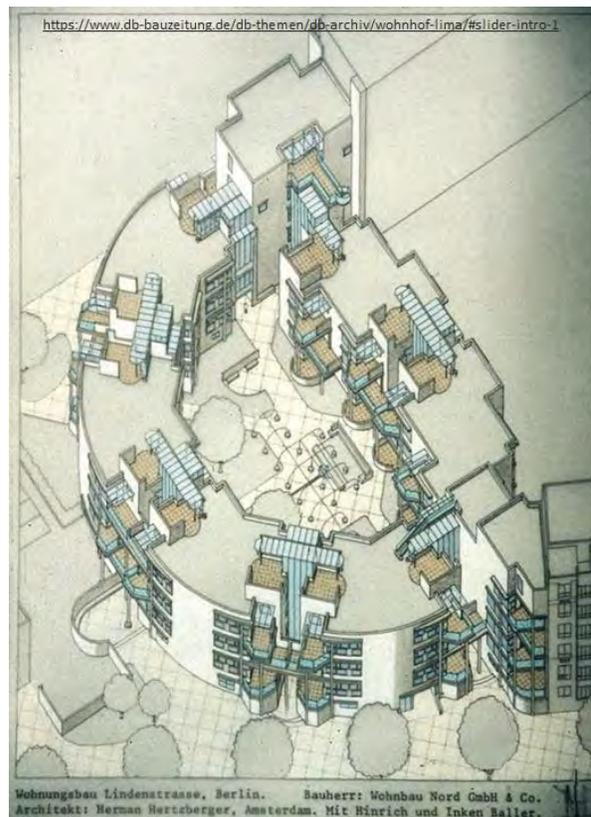
Fig 10 - Villa Shodhan
Le Corbusier (1956)
Ahmenabad, India



Fig 11 - Bruder Klaus Chapel
Peter Zumthor (2007)
Mechernich, Germany



Fig 12 - Lindenstrasse / LiMa Housing
Herman Hertzburger (1986)
Berlin, Germany

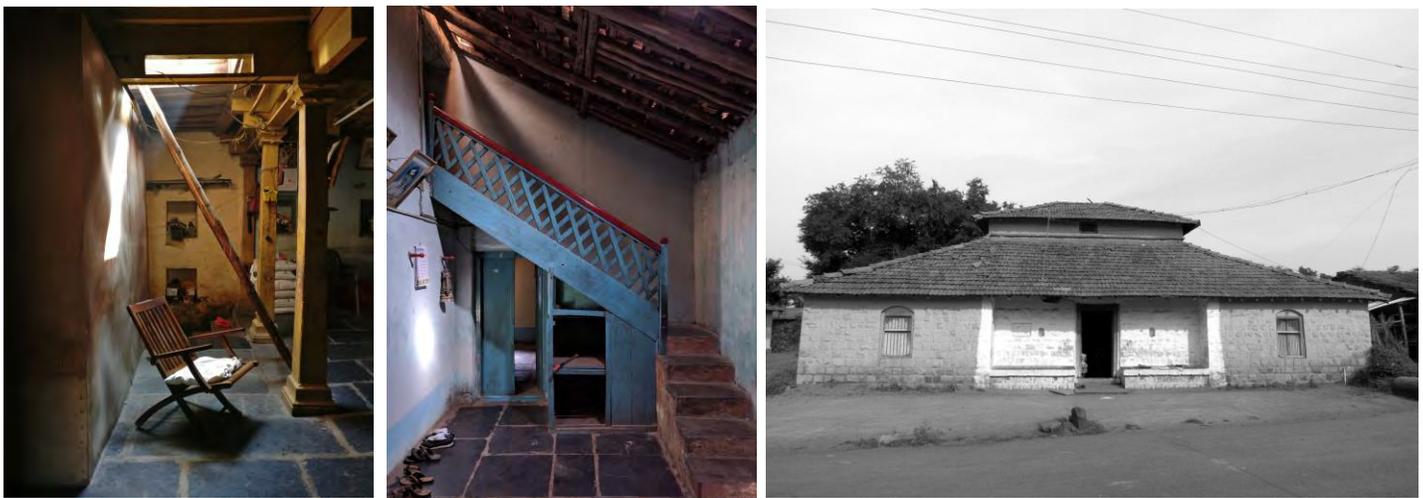


Principles				
Architect	Tech & Discovery		Humanism	
Saarinen	Chair-Room-City (Scales)			
Candela	Algorithmic design	Structural Mastery		
Corbusier			Spatial Organization	Simplicity of Materiality
Hertzberger			Promote Human Connections	Expect users to change their environment
Zumthor			Emphasize human touch in materials	Find new ways to manipulate simple materials
Piano	Manufacturing Mastery		Beauty of Structure	
SHoP		Digital Mastery	Hands on Construction	
Weinstein	Know History of place		Respond, but don't follow	
Timberlake	Experimental Projects	Explore other professions		

Appendix 1 - Scientific and Artistic Principles

Akash Chougula

Akash believes in creating an architectural learning which will help people to engage with their surroundings in daily lives; an architecture which will enhance their well-being along with restoring nature to its full capabilities; an architecture which is culturally awakened. He was born in Belgaum city of south India, where the family already knew about the profession of an architect because of his grandfather. At the age of 12, he came across an A1 size elevation drawing which his grandfather had drafted long back and that drawing amazed him to think more about what's the purpose of this drawing is it his hobby or his work and before completing his high school, he knew that he wants to become an architect but he did not know much about architecture and then the whole journey begins in understanding; What is Architecture?



The ancestral houses which showed design elements of responding to the context, [1] This Picture is of the house which is located in hot & dry climate ,the house is built in stone masonry with small window openings and having an open to sky in center allowing the hot wind to flow out and also allows the light to enter in center of the house, [2] & [3] The house is located in an composite climate which has often rainfall and it has a sloping roof, the house is very symmetrically planned for the cross ventilation in the summer's and keeps the house cool.

Spending some time of his childhood in his ancestral houses made him to question himself, why the wall surface was finished rough, smooth, and some exposed with rocks. When he started his undergraduate studies in Belgaum, he realized those houses were responding to the climate with appropriate use of material suitable for that context. The architectural study tours took him to more diverse parts of India, which made him understand the importance of buildings responding to the climate and its cultures through design elements. The relevance of different architecture was to visit different places and understand the process of building it.

“Architecture is the thoughtful making of space”



_Louis Isadore Kahn

The Salk Institute is the exemplary work for this quote which made him understand how to use these design elements like material, proportion, scale and light to make an incredible space for the user. The use of these design element made him to grow in his architecture journey and then he came across an Indian architect named Charles Correa, Correa's ideas describe the different ways of attaining wonderful designs within the vernacular range of different climatic conditions, which had an essence of identity to the site context.

After understanding the early modernist architect and the modernist architect of India, He then precisely made his own design ideologies which brought a strong approach to his designs. The following design ideologies are,

- **Built vs Open**

This design element emphasis the relativity with the surrounding context and allows the building to respond to its context.

- **Play of Natural Light**

Light is considered as an element which brings a sense of liveliness into the buildings through the shadows and patterns evolved.

- **Geometrical Massing**

The Scale and Proportion of the buildings develops a connectivity through different levels and emphasis the volume.

- **Indoor to Outdoor Hierarchy**

The spaces are not only related to interior, but the connection developed to the outdoor spaces and which invites the landscape into the buildings, making it seamless open spaces.

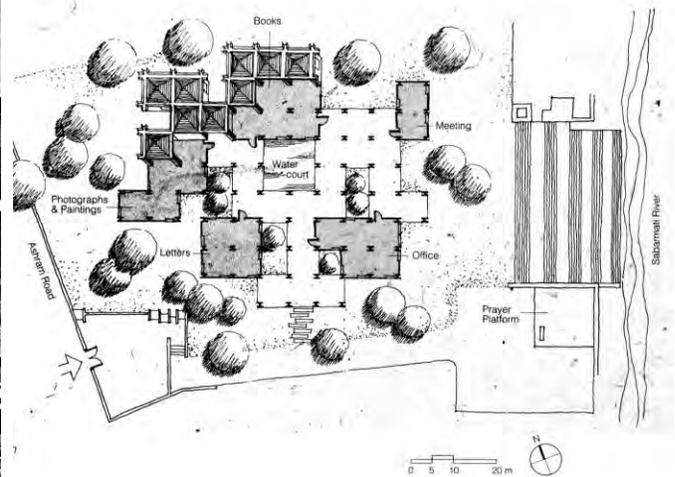
- **Exposed Material**

Being truth to material is one of an important gesture for a designer, which allows the space to have it original tone and texture.

These design ideologies were mainly formed & composed due to these two below projects, while he was on his study tour to Ahmedabad city. He could feel the spaces developing a character of its own and allowing the user to utilize the space accordingly.



The Indian Institute of Management in Ahmedabad, India designed by Louis I Kahn.



The Sabarmati Ashram in Ahmedabad, India designed by Charles Correa.

This memorial to the Mahatma Gandhi is a museum and research center, where scholars come to study his letters, books and photographs.

Sometimes the architecture of the city confines its own story which allows you to understand about the context and culture of the place. This made him to think about the rest of the world and its architecture and this made him to study M. Arch globally, which could turn these design ideologies in to set of principles for his design approach. He was kind of inclined towards NCSU College of Design, Raleigh. This inclination towards the college of design was deep-rooted by Architect Matthew Nowicki who was first commissioned to design the city of Chandigarh and also was one of the founding faculty of the NCSU School of Design in 1948 under Dean Henry Kamphoefner. After some research about the North Carolina's architecture, he came to know that it's one of the largest concentrations of Modernist houses in the entire United States and due to the Triangle Modern Architecture course, he was widely open about the astonishing architectural evolution in parts of North Carolina. The connection of the initial parti diagram in developing of the projects is crucial to keep the ideas concentrated towards achieving the spaces. The Modernist architects of North Carolina had a strong design impact due to the context of developing social life and also being expressive through their design which they followed by their own design principles and also the influencers or mentors, which made them believe in there own self for a responsive architecture. Design is all about the appropriate use of the space or a space which can confine use into a story, which the architect wants us to realize through their designed spaces or the journey they create for the user into the buildings. Some of the selects architects which made him realize about the design principles and executing them in their projects are below.

I. EARLY MODERNIST. (1921-1945)

+ Frank Lloyd Wright, 1867-1956

Influencer - Louis Sullivan, Joseph Lyman Silsbee.

Principles - Organic Color,

Simple geometry shapes,

Integration of natural surrounding

Strong horizontal lines and hidden entry.

Selected Works - Fallingwater, Pennsylvania.

Solomon R. Guggenheim Museum, New York.

+ Le Corbusier, 1887-1965

Influencer - René Chapallaz, L'Eplattenier.

Principles - Pilotis,

The free designing of the ground plan,

The horizontal window,

Roof garden.

Selected Works - Notre Dame du Haut, Ronchamp, France.

Palace of Assembly, Chandigarh, India

+ Louis I Kahn, 1901-1974

Influencer - Paul Philippe Cret, Egypt's Architecture.

Principles – Monumental form,

Natural Light,

Man-made Nature,

Exposed material.

Selected Works - Salk Institute, California.

Kimbell Art Museum, Texas.

2. THE KAMPHOEFNER YEAR. (1948-1973)

+ George Matsumoto (1922-2016)

Influencer - Eliel Saarinen.

Principles – Large Window & Flat Roof,
Unobstructed Internal View,
Terrazzo Floor,
Natural wood for wall and ceiling.

Selected Works - The Jackson Residence, Raleigh.

The Kirkwood Floyd and Sarah Adams Residence, Roanoke Rapids NC.

+ Eduardo Catalano (1917-2010)

Influencer – Walter Gropius, Marcel Breuer.

Principles – Wrapped Surfaces,
Structural Geometry,
Glass Facade,
Inside Outside connections.

Selected Works - The Eduardo Catalano House, Raleigh.

+ Matthew Nowicki (1910-1950)

Influencer - Rudolf Swierczynski.

Principles – Wrapped Surfaces,
Modernist Structural,
Geometrical Shapes.

Selected Works - J.S. Dorton Arena, Raleigh.

Chandigarh Capital Planning, Chandigarh, India

3. THE PRACTICING TRIANGLE ARCHITECTS. (1974-2019)

+ Frank Harmon (1941)

Influencer – Harwell Hamilton Harris, Le Corbusier, Richard Meier.

Principles – Regional approach,
Overlooking spaces,
Built vs Open spaces.

Selected Works - Taylor Vacation House, Bahamas

Prairie Ridge Eco-Station Outdoor Classroom, Raleigh.

+ Turan Duda (1953)

Influencer – Peter Eisenman, Cesar Pelli, James Stirling, Fred Koetter

Principles – Connecting Interior to exterior,
Public vs Private spaces,
Regional approach,
Play of Natural light.

Selected Works - Center for Health + Wellbeing, Florida.

Duke University Student Wellness center, Durham.

+ Phil Freelon (1953-2019)

Influencer – Allan Randall Freelon Sr, Roger Clark.

Principles – Bold Conceptual Shapes,
Warm toned skin,
Hierarchy.

Selected Works - National Museum of African American History and Culture, Washington, DC

National Center for Civil and Human Rights, Atlanta



Course Syllabus

PREREQUISITE ARC 201 - **CO-REQUISITE** NONE

COURSE CATALOG DESCRIPTION + OVERVIEW

“Investigation of the relationships between environment and built form. Solar orientation, topography, vegetation, and constructed context in relationship to user needs as parameters for justifying design proposals. Particular emphasis on architectural conventions of communication.”

ARC 202 studio investigates the relationship between the environment and built form. In this course, the students will learn about the concepts of site and environment in architecture and explore ways in which one can examine such concepts and develop responses to such constructs. As the students learn to measure and map the idea of environment, from the global to local scales, through their analysis of constructed contexts, climate, solar orientation, topography, vegetation, history, memory, and human needs and experience, they will also continue to develop their knowledge of architectural conventions of communication through drawings and models.

COURSE OBJECTIVES

- Develop an understanding of the influence of environment and site has in determining form and space;
- Develop the ability to explore integrating built elements and site, as well as articulating space through site manipulation;
- Develop the ability to research information for a given task (including research on precedents), critically evaluate the information, and represent it in an appropriate manner;
- Develop the ability to critically translate ideas into architectural form and space, advancing design intentions through an iterative process that is well documented.
- Develop an understanding of the role of subjective and objective judgment in the design process.

In regards to representation:

- To understand modeling and drawing (both analog and digital) as tools for the exploration of architectural ideas.
- To further develop skills to delineate form and space in a broad range of 2d and 3d representations both in analog and digital media.

Some notes on the use of the computer

- Digital tools may only be used if approved by the instructor. When approved, drawings will be held to the same standards of craft and presentation. No excuses related to plotting problems will be tolerated.

PROJECTS

The course will consist of two primary design projects and “Visual Thinking:”

- The Abstract Site: Students will analyze and translate a painting into a landscape. This analysis will be the base for a design project must formally integrate within the existing site ordering principles utilizing a new ‘form’ vocabulary.
- Town Creek Indian Mound
- *Visual Thinking*
 - Throughout the semester, students will maintain a single, dated, (11" x 17") image-file / record of all documents related to both courses. This portfolio will contain important original or photocopy-reduced sketches and drawings, process drawings on trace or computer print-outs, notes, thoughts (from lectures, pinups, critiques, work sessions and juries) and research images / information related to your studio projects. You are to bring your workbook to class every day.
 - The sketchbook/portfolio will include at least 10 very high quality 11x17 freehand pencil sketches as required by your studio critic. You may be asked to make up to one of these drawings per week, but you will be graded on the best 10 only (this may vary between studio critics). At the end of the semester you will submit this workbook/sketchbook for final grading. (It will be returned to you.)

EXPECTATIONS

The design studio is the centerpiece and single most important component of your architectural education. It is the place where you explore, test, and apply all that you are learning in other classes and in life to the central work of architects: design. In laying the foundation for your experience in design, nothing will serve you better than to invest seriously, proactively, independently, and tenaciously in your studio work this semester.

Each person has a responsibility to bring something to the group - technical skill, ideas and imagination, a positive attitude, motivation, and discussion. In addition to contributing to the studio as a group, each individual is expected to bring a personal intensity to his or her own work. Rigorous exploration and development of ideas and mature work habits will be essential. Innate talent varies from person to person, but no one has too much or too little to be excused from working hard. Finally, you are expected not only to try hard, but also to achieve, and complete your work.

THE STUDIO

1. This semester requires that we all assume a responsibility on taking care of ourselves and everyone in our community. We ask that in every decision you make, you consider how your decisions may affect others.
2. Studio will look different this semester. Studio will be a hybrid approach, meaning that you will have access to studio during the assigned timeslots (see studio use schedule) and our meetings will be on-line via Zoom:

<https://ncsu.zoom.us/j/97220114105?pwd=SE1DWkwyR3ZnY0RML3VLSmFCY1BQdz09>

Meeting ID: 972 2011 4105 - Passcode: 282246

3. Regarding the use of the studio, the maximum occupancy of the studio is 30 students. Therefore, you have limited access to the space during studio hours as well as after studio. Our section will have access to the studio space on Mondays and Wednesdays during studio hours. Additionally, you will have access to the studio during assigned times (please see the studio use schedule at the end of this document).

Please note that per university health guidelines, you may occupy the studio for periods of 75 minutes maximum. **If you choose to be in studio for a longer period, please note that you are the sole responsible for taking a 15-min. break per the attached schedule, go outside and breath fresh air, and come back. THIS IS CRITICAL FOR YOUR SAFETY AND THAT OF OTHERS.**

4. Regarding **online instruction**, students are highly recommended to activate the video camera for the entire studio session (1:30-5:30) and to unmute audio during their deskcrit.

NOTE: Each student will select a weekly precedent from the precedent list, and select an image to use as a virtual background. The student should be prepared to give a brief introduction to the project and architect.

**In light of COVID-19, see the following in the COVID19 Addendum below:
"Course Delivery Changes Related to COVID-19"**

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course may need to change accordingly, including from in-person to online. Regardless of the delivery method, we will strive to provide a high-quality learning experience.

IN SPECIFIC

1. While **class meets MWF from 1:30 to 5:20 PM**, studio may run late on days of reviews, tutorials, and occasionally on some days when we have desk crits scheduled (this is even true for online reviews + desk crits).

On Review days, your attendance and participation during the entire duration of reviews not only shows support and respect for your colleagues but will provide an important learning experience as well. We will expect to start reviews promptly at 1:30PM, unless otherwise announced. Schedule is subject to change with appropriate notification to students.

2. **Use studio time productively:** Studio time should be used productively. You're expected to make the most of this time by minimizing distractions. If in the studio: listening to music with headphones helps you to reduce distractions and concentrate, that is fine, but we ask that you keep the volume low enough so that if we need to make announcements, you won't miss them. You are not permitted to work on assignments from other classes during studio time.

3. **Work together:** The studio space will be made available to you intermittently throughout the school week. This is to support you to work when it is most conducive to you, and as much as possible for you to work together. You will find that you are each other's greatest resources, and your best individual work is dependent upon a strong, engaged, and supportive studio atmosphere. In the past the best way to communicate and collaborate was spending time in the studio, and this may well be a virtual platform. Please plan on setting up a group virtual meeting space and chat among the group. You will be encouraged to ask questions, post helpful tutorials, etc.
4. **If in the studio,** there are simple things you must do to respect each other's space and that of the general studio community.

WEAR MASKS! This is a University requirement and you are expected to comply for the safety of everyone.

Music should be played only with headphones. Cell phones should be silenced during studio class hours, and used only sensibly, and with courtesy the remainder of the time. Please also do not stream videos, films, or shows in the studio.

Although small snacks to keep you going through the studio is okay, please eat your lunch or dinner outside of studio hours and please place leftovers in studio fridges and dispose of food waste immediately in appropriate receptacles.

Use of noisy power tools should be restricted to the shop. Clean up after yourself regularly and completely. Respect our building - use tools, adhesive and paint sprays, and other potentially destructive material only in designated ways and areas.

Studio Space. Students are expected to maintain the studio space and surrounding area in a clean and orderly manner. Please note that except for service animals, **pets are not allowed in educational buildings.**
5. To gain the **maximum benefit from desk crits** you should take the time to be organized and prepared: have the material you want to discuss uploaded on our shared Google Drive no later than at 1:00pm on studio days. Make sure everything is organized, and clear, and that you **ONLY** submit what we will be discussing on that day. I will be drawing on your images remotely and will share my comments at the end of our studio sessions, thus, we want to keep the files relatively small.

Files should be labeled: LAST NAME – Date

Most importantly, undertake your design process as one of constant making. Architectural ideas only become real and available for exploration and discussion once they have become manifest. The production of artifacts which record your thought process is the design process. If you are not producing drawings and models you are not designing. As this process requires continuity and repetition to be successful we expect to see new work at each studio meeting. A student's work pace varies widely from one individual to the next.
6. You are strongly encouraged and expected to attend the **School of Architecture Lecture Series**. These lectures become part of our collective discourse in the school, and should not be missed. You are also encouraged to attend the mid- and final reviews of other years and studios, especially third year, but also, graduate level studios. You should be engaged with all the various components of academic life in the School of Architecture and the College of Design community.
7. Please read, sign (I promise to abide by the **Studio Culture Statement of the School of Architecture**), and turn in the Studio Culture Statement on the second day of class (1/22/2021): <https://www.design.ncsu.edu/PDFs/NCSU-Studio-Culture.pdf>
8. The course will be managed via Google Drive. A link will be shared the first week of class to access digital versions of all assignment sheets, and any other relevant course resources. Students will also be responsible for uploading their work to the shared folder prior to every studio.

GUIDELINES

The following guidelines will foster a physical and intellectual environment that will facilitate excellent work. It is expected that you will:

1. Accept responsibility and show respect for your peers.
2. Acknowledge your individual strengths and weaknesses and work to improve the weaknesses while exploring the strengths.
3. Be prepared for what may seem significant costs for equipment, and materials, and books over the course of the semester.

As part of your educational experience at the College of Design, you will be expected to fulfill your class assignments using equipment, tools, and machinery belonging to you or the University. It is expected that you will use proper care and caution and will assume full responsibility for your health and safety.

INDEPENDENCE + RESPONSIBILITY

Use the library regularly:

We expect that your enthusiasm for architecture in general will lead you to regularly immerse yourself in the library's holdings. We often will mention certain architects or their work by way of demonstrating a principle related to your work. If you are not familiar with the reference, we expect you to look it up and to have visual evidence of this at our next meeting with you. This kind of visual vocabulary

and curiosity are crucial components of your ongoing architectural education and future practice. The single greatest aid to becoming a good architect is a familiarity with and understanding of the works of the past.

Safety:

As part of your educational experience at the College of Design, you will be expected to participate in classes, site visits, and workshops in locations both on and off the campus. You will be expected to fulfill your class assignments using equipment, tools, and machinery belonging to the university and/or your own equipment, tools, and machinery. It is expected that you will use proper care and caution and will assume responsibility for your own health and safety.

In light of COVID-19, see the following in the COVID19 Addendum below:

“Community Standards Related to COVID-19” in the

We are all responsible for protecting ourselves and our community. Please see the community expectations and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules

“Course expectations”

Face Coverings:

All members of the NC State academic community are required to follow all university guidelines for personal safety with face coverings, physical distancing, and sanitation. Face coverings are required in class and in all NC State buildings. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides. In addition, students are responsible for keeping their course/work area clean. Please follow the cleaning guidelines described by the university.

Classroom Seating:

To support efficient, effective contact tracing, please sit in the same seat when possible and take note of who is sitting around you; instructors may also assign seats for this purpose.

PEDAGOGY

Experimentation and learning from others:

The instructor will bring their experiences and knowledge; these support the methods and techniques to guide their studio through these objectives. The studio course is more a laboratory for experimentation and mimesis than it is an environment where you are instructed. You should look at your studio critics as guides that will take you through your efforts to successfully think and work tectonically.

Learning by doing:

Some of the material in this course cannot be successfully conveyed through lectures or presentations. You must do it and live in it because, as a studio course, *learning occurs in the act of making*.

GRADING - Your semester grade will be weighted as follows:

- 1 Project 1 – The Abstract Site (40%)
- 2 Project 2 – Town Creek Indian Mound (50%)
- 3 Visual thinking, participation, organization, and improvement, and leadership (10%)

All projects will be graded based on completion and quality of the following categories: precedent analysis and research, 2D artifacts (diagrams, sketches, and presentation drawings), 3D artifacts (study and final models), project development (ability to edit, refine and prioritize goals), and on-time completion (new good quality material for each studio meeting).

IMPORTANT:

To receive a grade for the semester, students will be required to provide electronic documentation of ALL study and final drawings and models for each project must be turned in (via Google Drive or as stated by your instructor). Further instructions will follow.

The following grading scales (including +/- grades) will apply:

- A Superior design skills, product, and effort. Student has exceeded requirements and expectations for the studio. Self-motivation, breadth of knowledge relating to architectural design issues, and ability to create integral and inspired design solutions is clearly evident. Contribution to the studio environment is in a leadership capacity. Ability to present ideas through drawing, modeling, and verbal means exhibits the highest level of achievement. The hallmark of an A student is the desire to question and critique him- or herself and to pursue new ideas and/or technical skills.

- B Better than satisfactory design skills, product, and effort. Student has met the requirements and expectations of the studio with distinction. Drawing and modeling skills are highly developed. Student is a positive and active member in the studio environment.
- C Satisfactorily meets the stated requirements of the course (all work is complete and on time). Design assignments show minimum competence relative to design skills, product, and effort.
- D Marginally meets the stated requirements of the course (work is incomplete and/or late). Work fails to demonstrate full understanding and execution of the concepts and skills required for the studio.
- F Fails to meet stated requirements of the course.

This Course uses Standard NCSU Letter Grading:

97 ≤ **A+** ≤ 100

93 ≤ **A** < 97

90 ≤ **A-** < 93

87 ≤ **B+** < 90

83 ≤ **B** < 87

80 ≤ **B-** < 83

77 ≤ **C+** < 80

73 ≤ **C** < 77

70 ≤ **C-** < 73

67 ≤ **D+** < 70

63 ≤ **D** < 67

60 ≤ **D-** < 63

0 ≤ **F** < 60

**In light of COVID-19, see the following in the COVID19 Addendum below:
“Grading/Scheduling Changing Options Related to COVID-19”**

If the delivery mode has a negative impact on your academic performance in this course, the university has provided tools to potentially reduce the impact:

- Enhanced S/U Grading Option: [Enhanced Satisfactory/ Unsatisfactory Grading Option](#)
- Late Drop: [Enhanced Late Drop Option](#)

In some cases, another option may be to request an incomplete in the course. Before using any of these tools, discuss the options with your instructor and your academic advisor. Be aware that if you use the enhanced S/U, you will still need to complete the course and receive at least a C- to pass the course.

Requirements for Credit-Only (S/U) Grading

In order to receive a grade of S, students are required to take all exams and quizzes, complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to <http://policies.ncsu.edu/regulation/reg-02-20-15>.

Academic Integrity Statement

As in all other courses in the College of Design, work completed for this course must comply with the NCSU Code of Student Conduct. The Code will be rigorously adhered to and Academic Dishonesty will be dealt with as governed by the Code. For additional information see: <http://policies.ncsu.edu/policy/pol-11-35-01>

ATTENDANCE

Attendance to class (in-person and online sessions) is mandatory and class time cannot be made up. Each late arrival or early departure will result in 1/2 of an absence. More than three unexcused absences from studio will result in a lowered grade [-10% for each absence over 3] and more than five unexcused absences will result in automatic failure of the course. Faculty shall have the right to withdraw a

student who has exceeded 5 days of excused absence in the studio. This situation is at the discretion of the faculty member, and is determined on a case by case basis. You are required to attend the critique even if your project has not yet been turned in, an absence from a critique is an absence. Please note that these requirements are the same across all undergraduate studio courses in the School of Architecture.

An excuse for an absence will be considered if the absence is due to: illness or injury when certified by an attending physician; death or serious illnesses in the family when documented appropriately; representation of the University at an official university function (e.g., participating in a professional meeting, as part of a judging team, or athletic team); required court attendance as certified by the Clerk of Court; religious observances as verified by Student Organization Resource Center; or required military duty as certified by the student's commanding officer.

For further clarification, refer to: <http://policies.ncsu.edu/regulation/reg-02-20-03>. We will require written documentation for any excused absence. This documentation must be turned in within one week of returning to classes.

If you have to be absent from class or if you have to come late or leave early, you must let us know about it in advance, either in person or by email. Each late arrival or early departure will result in 1/2 of an absence. Noticeable absence from a studio review session shall result in a drop of one letter grade from the assignment being reviewed. More than three unexcused absences from studio will result in a lowered grade and more than five unexcused absences will result in automatic failure of the course. Faculty shall have the right to withdraw a student who has exceeded 5 days of excused absence in studio. This situation is at the discretion of the faculty member, and is determined on a case by case basis.

Please note that these requirements are the same across all undergraduate studio courses in the School of Architecture.

**In light of COVID-19, see the following in the COVID19 Addendum below:
"Health and Participation in the Class"**

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, please work with your instructor on health accommodations and follow other university guidelines, including self reporting ([Coronavirus Self Reporting](#)): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to class.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to discuss the situation and make alternative plans, as necessary.
- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor for the appropriate process to make a COVID-19 request. If you need assistance in requesting special consideration for remote learning, you can fill out this [form](#). It is not required if you are able to work out a situation with your professor, but it provides you with an opportunity to work with an independent unit to get consideration, should you need or want it.

"Course Attendance" under "Course Expectations"

- If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.

SUBMISSION OF WORK

- To receive a passing grade in the course, ALL assignments must be completed whether or not you missed a class.
- If no notification has been received, failure to submit assignments on the deadline will result in a reduction of one full letter grade per day.
- Failure to attend, or noticeable absence from a studio assignment critique or pin-up will result in a drop of one letter grade from the assignment being reviewed. You are required to attend the critique even if your assignment has not yet been turned in.

You can find a summary of the university's policy on Grades and Grade Point Averages at [NCSU REG 02.50.03](#).

POLICY ON MISSED ASSIGNMENTS

A student may turn in assignments late ONLY with documentation of an excused absence. Make up work must be done within one week of returning to class.

Academic integrity is expected of all students. Please see the university code of conduct at:

<http://www.fis.ncsu.edu/ncsulegal/41.03-codeof.html>

POLICIES ON INCOMPLETE GRADE

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. The university policy on incomplete grades is located at <http://policies.ncsu.edu/regulation/reg-02-50-3>.

COURSE MATERIALS, TEXTBOOKS, AND TECHNOLOGICAL REQUIREMENTS

While there are no required textbooks to purchase for the course, students should expect typical studio and material supply expenses (See attached materials list). You are expected to provide all of the supplies necessary to complete your work. Any required readings will be provided, or on hold in the College of Design Library.

In light of COVID-19, see the following in the COVID19 Addendum below:

“Course Expectations”

- Technology Requirements: This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).
- Additional items you may consider adding a few items to your toolkit: a lightweight folding chair, a hat, insect repellent, and sunscreen. Meeting and working outside may be more common this semester.

DISCLAIMER ON USE OF GOOGLE DRIVE - ELECTRONICALLY-HOSTED COURSE COMPONENTS

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside of the course.

Instructors are not responsible for ensuring privacy or accessibility of electronic materials that are not required components of the course (e.g. links to supplemental information that is not part of the required reading list). However, instructors should judiciously consider the privacy, copyright, and accessibility of supplemental links provided to students and warn them of any known issues or concerns in this regard. See Online Course Material Host Requirements ([NCSU REG 08.00.01](#)).

GENERAL EDUCATION PROGRAM (GEP) INFORMATION:

This course does not fulfill a General Education Program category for College of Design students.

This course does not fulfill a General Education Program co-requisite for College of Design students.

STUDENTS WITH DISABILITIES

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office at Holmes Hall, Suite 304, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01) (<https://policies.ncsu.edu/regulation/reg-02-20-01/>).

NON-DISCRIMINATION POLICY

NC State provides equal opportunity and affirmative action efforts, and prohibits all forms of unlawful discrimination, harassment, and retaliation ("Prohibited Conduct") that are based upon a person's race, color, religion, sex (including pregnancy), national origin, age (40 or

older), disability, gender identity, genetic information, sexual orientation, or veteran status (individually and collectively, "Protected Status"). Additional information as to each Protected Status is included in NCSU REG 04.25.02 (Discrimination, Harassment and Retaliation Complaint Procedure). NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or <https://oied.ncsu.edu/divweb/>. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

DIVERSITY, EQUITY AND INCLUSION

Architecture is made to serve people and as a part of the global community we recognize diversity within our school as well as the self-expression of our students. The School of Architecture values how diversity cultivates a rich learning environment. It is a fundamental principle that each individual has the right to learn without fear of character depredation or retribution for personal opinions. Students and professors must expect and help foster a learning environment of trust and respect. An individual must never suffer in the learning environments because of race, religion, gender, sexual orientation, ethnicity or national origin. The School of Architecture seeks to build a positive and encouraging community that promotes diversity, equity, inclusion, and justice.

COVID-19 ADDENDUM (text in gray has been incorporated into the Syllabus)

Due to the Coronavirus pandemic, public health measures have been implemented across campus. Students should stay current with these practices and expectations through the Protect the Pack website (<https://www.ncsu.edu/coronavirus/>). The sections below provide expectations and conduct related to COVID-19 issues.

Health and Participation in Class

We are most concerned about your health and the health of your classmates and instructors/TAs.

- If you test positive for COVID-19, or are told by a healthcare provider that you are presumed positive for the virus, please work with your instructor on health accommodations and follow other university guidelines, including self reporting (Coronavirus Self Reporting): Self-reporting is not only to help provide support to you, but also to assist in contact tracing for containing the spread of the virus.
- If you feel unwell, even if you have not been knowingly exposed to COVID-19, please do not come to class.
- If you are in quarantine, have been notified that you may have been exposed to COVID-19, or have a personal or family situation related to COVID-19 that prevents you from attending this course in person (or synchronously), please connect with your instructor to discuss the situation and make alternative plans, as necessary.
- If you need to make a request for an academic consideration related to COVID-19, such as a discussion about possible options for remote learning, please talk with your instructor for the appropriate process to make a COVID-19 request. If you need assistance in requesting special consideration for remote learning, you can fill out this form. It is not required if you are able to work out a situation with your professor, but it provides you with an opportunity to work with an independent unit to get consideration, should you need or want it.

Health and Well-Being Resources

These are difficult times, and academic and personal stress are natural results. Everyone is encouraged to take care of themselves and their peers. If you need additional support, there are many resources on campus to help you:

- Counseling Center (NCSU Counseling Center)
- Health Center (Health Services | Student)
- If the personal behavior of a classmate concerns or worries you, either for the classmate's well-being or yours, we encourage you to report this behavior to the NC State CARES team: (Share a Concern).
- If you or someone you know are experiencing food, housing or financial insecurity, please see the Pack Essentials Program (Pack Essentials).

Community Standards related to COVID-19

We are all responsible for protecting ourselves and our community. Please see the community expectations and Rule 04.21.01 regarding Personal Safety Requirements Related to COVID-19 RUL 04.21.01 – Personal Safety Requirements Related to COVID-19 – Policies, Regulations & Rules

Course Expectations Related to COVID-19:

- Face Coverings: All members of the NC State academic community are required to follow all university guidelines for personal safety with face coverings, physical distancing, and sanitation. Face coverings are required in class and in all NC State buildings. Face coverings should be worn to cover the nose and mouth and be close fitting to the face with minimal gaps on the sides. In addition, students are responsible for keeping their course/work area clean. Please follow the cleaning guidelines described by the university.
- Course Attendance: NC State attendance policies can be found at: [REG 02.20.03 – Attendance Regulations – Policies, Regulations & Rules](#) . Please refer to the course's attendance, absence, and deadline policies for additional details. If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, you should not be penalized regarding attendance or class participation. However, you will be expected to develop a plan to keep up with your coursework during any such absences. If you become ill with COVID-19, you should follow the steps outlined in the health and participation section above. COVID 19-related absences will be considered excused; documentation need only involve communication with your instructor.
- Course Meeting Schedule: Your course might not have a traditional meeting schedule in Fall 2020. Be sure to pay attention to any updates to the course schedule as the information in this syllabus may have changed. Please discuss any questions you have with the instructor.
- Classroom Seating: To support efficient, effective contact tracing, please sit in the same seat when possible and take note of who is sitting around you; instructors may also assign seats for this purpose.
- Technology Requirements: This course may require particular technologies to complete coursework. Be sure to review the syllabus for these expectations, and see the [syllabus technical requirements](#) for your course. If you need access to additional technological support, please contact the Libraries' Technology Lending Service: ([Technology Lending](#)).
- Additional items you may consider adding a few items to your toolkit: a lightweight folding chair, a hat, insect repellent, and sunscreen. Meeting and working outside may be more common this semester.

Course Delivery Changes Related to COVID-19

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course may need to change accordingly, including from in-person to online. Regardless of the delivery method, we will strive to provide a high-quality learning experience.

Grading/Scheduling Changing Options Related to COVID-19

If the delivery mode has a negative impact on your academic performance in this course, the university has provided tools to potentially reduce the impact:

- Enhanced S/U Grading Option: [Enhanced Satisfactory/ Unsatisfactory Grading Option](#)
- Late Drop: [Enhanced Late Drop Option](#)

In some cases, another option may be to request an incomplete in the course. Before using any of these tools, discuss the options with your instructor and your academic advisor. Be aware that if you use the enhanced S/U, you will still need to complete the course and receive at least a C- to pass the course.

Other Important Resources

- Keep Learning: [Keep Learning](#)
- Protect the Pack FAQs: [Frequently Asked Questions | Protect the Pack](#)
- NC State Protect the Pack Resources for Students: [Resources for Students | Protect the Pack](#)
- NC State Keep Learning, tips for students opting to take courses remotely: [Keep Learning Tips for Remote Learning](#)
- Introduction to Zoom for students: <https://youtu.be/5LbPzzPbYEW>
- Learning with Moodle, a student's guide to using Moodle: <https://moodle-projects.wolfware.ncsu.edu/course/view.php?id=226>
- NC State Libraries [Technology Lending Program](#)



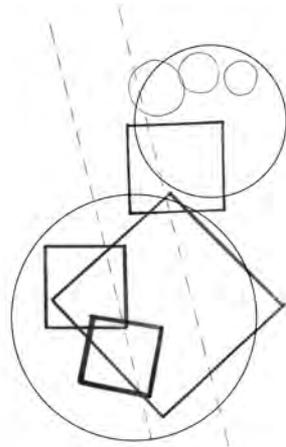
split

a room and a garden | kelly wu

A large, white, stylized number '4' is centered on a black background. The number is composed of thick white lines. Inside the horizontal bar of the '4', the word 'site' is written in a bold, lowercase, sans-serif font.

site

analysis, sketches, parti model



geometry

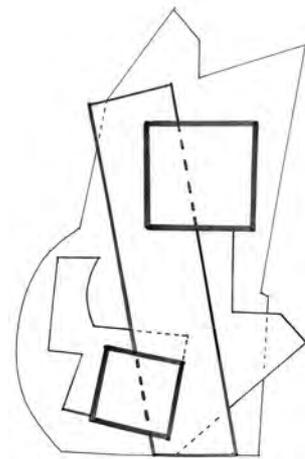
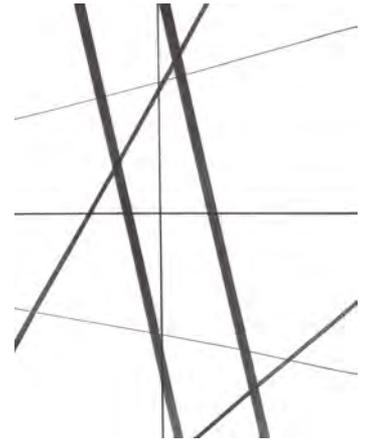
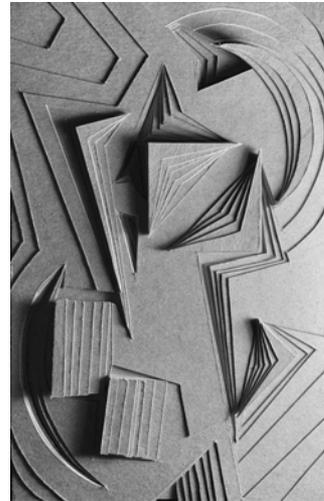
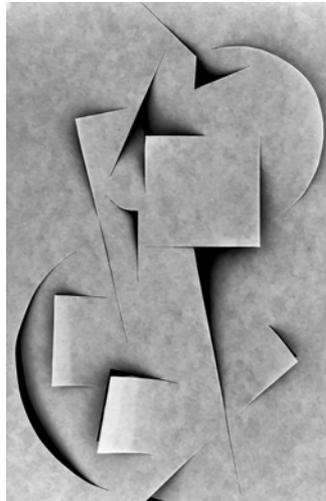


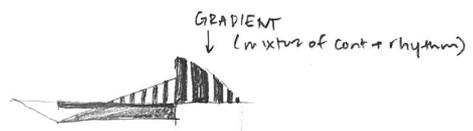
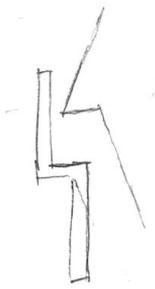
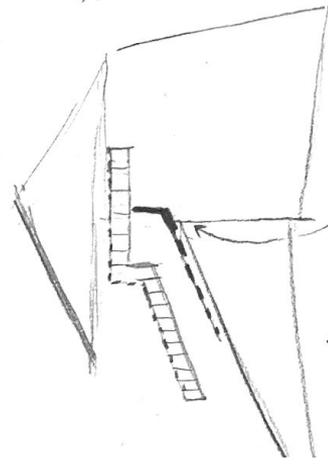
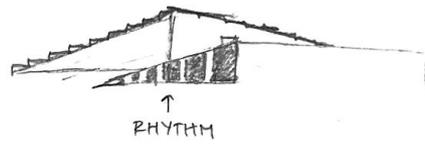
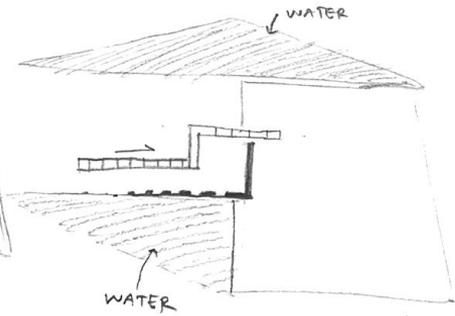
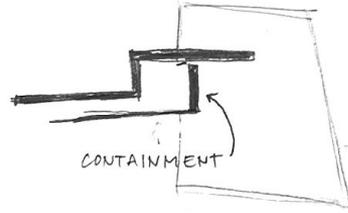
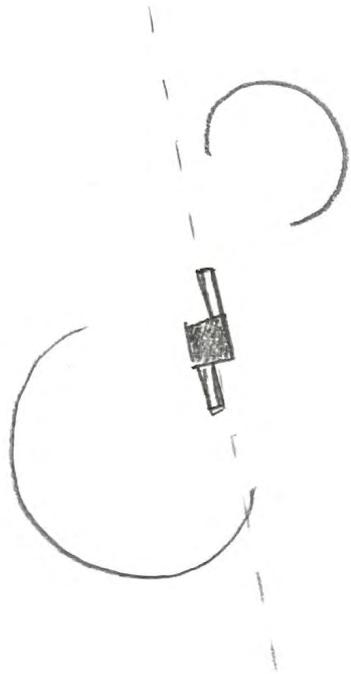
figure-ground



regulating lines

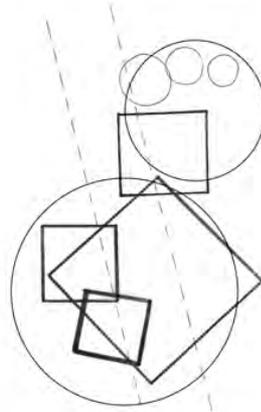


SCHEME 2





regulating lines



geometry

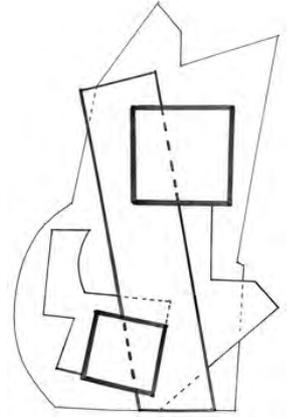
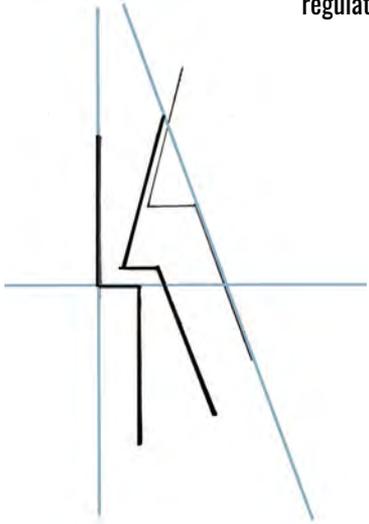


figure-ground



regulating lines



walls of containment + rhythm



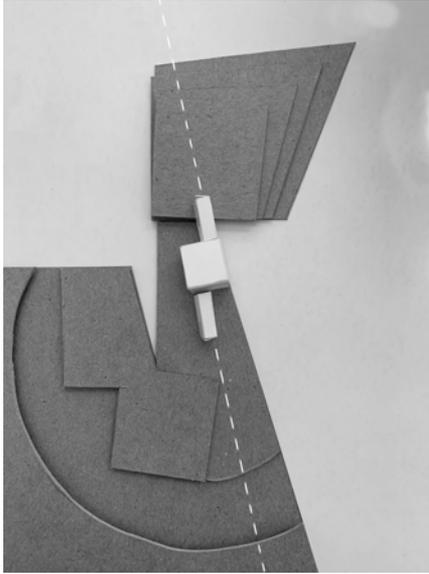
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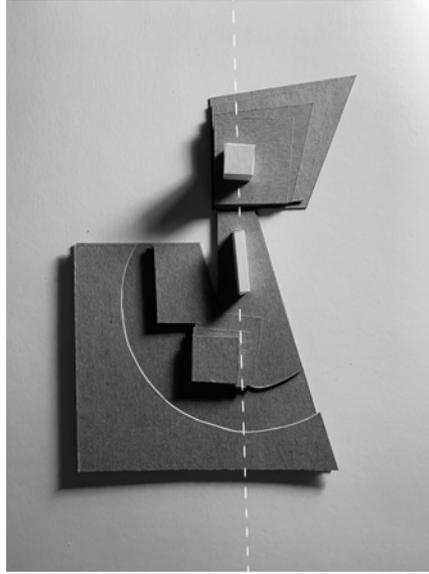
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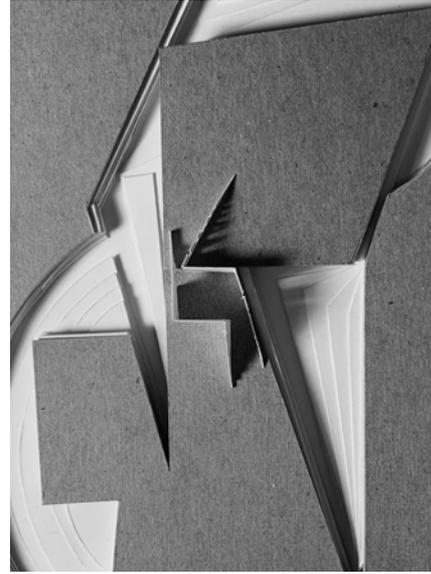
water



Iteration 1



Iteration 2



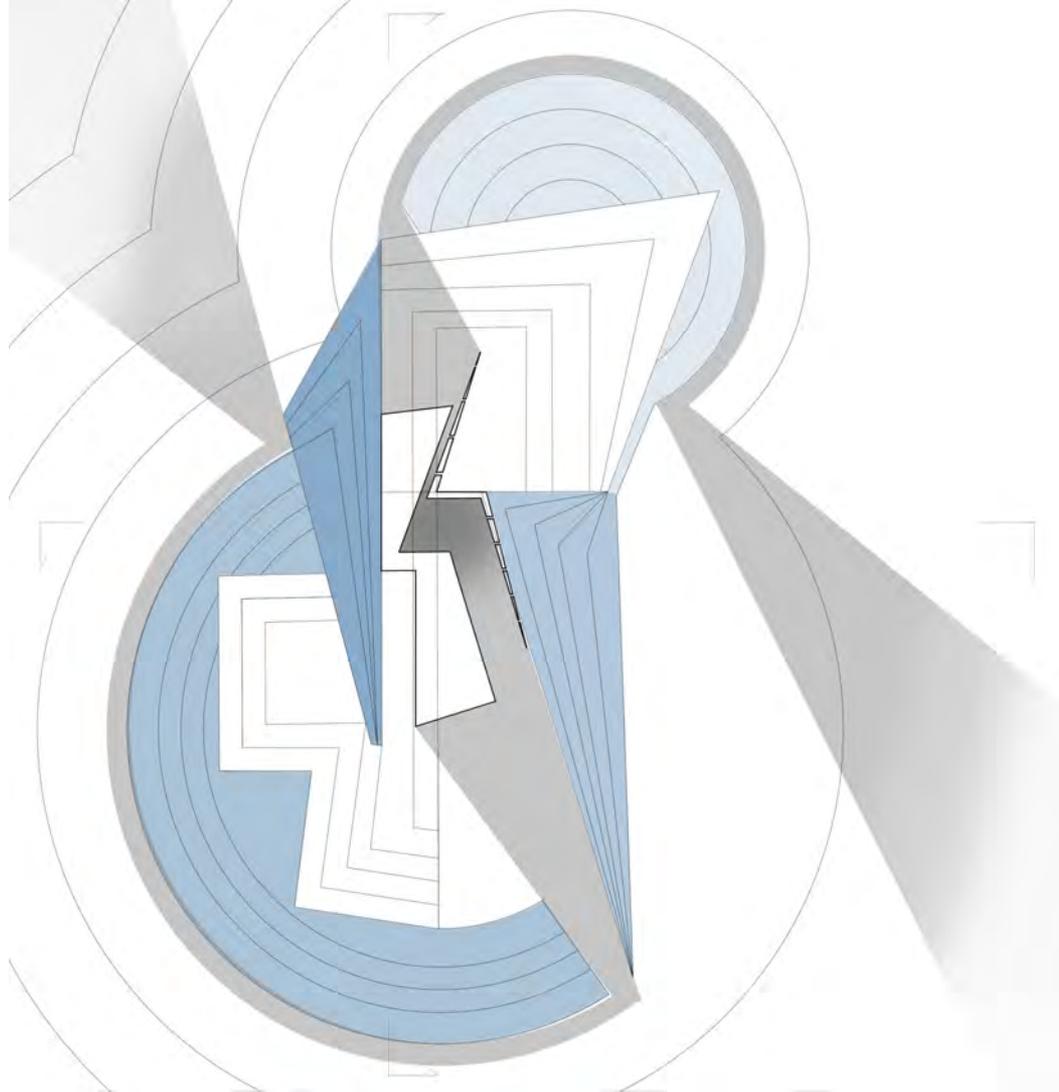
Iteration 3



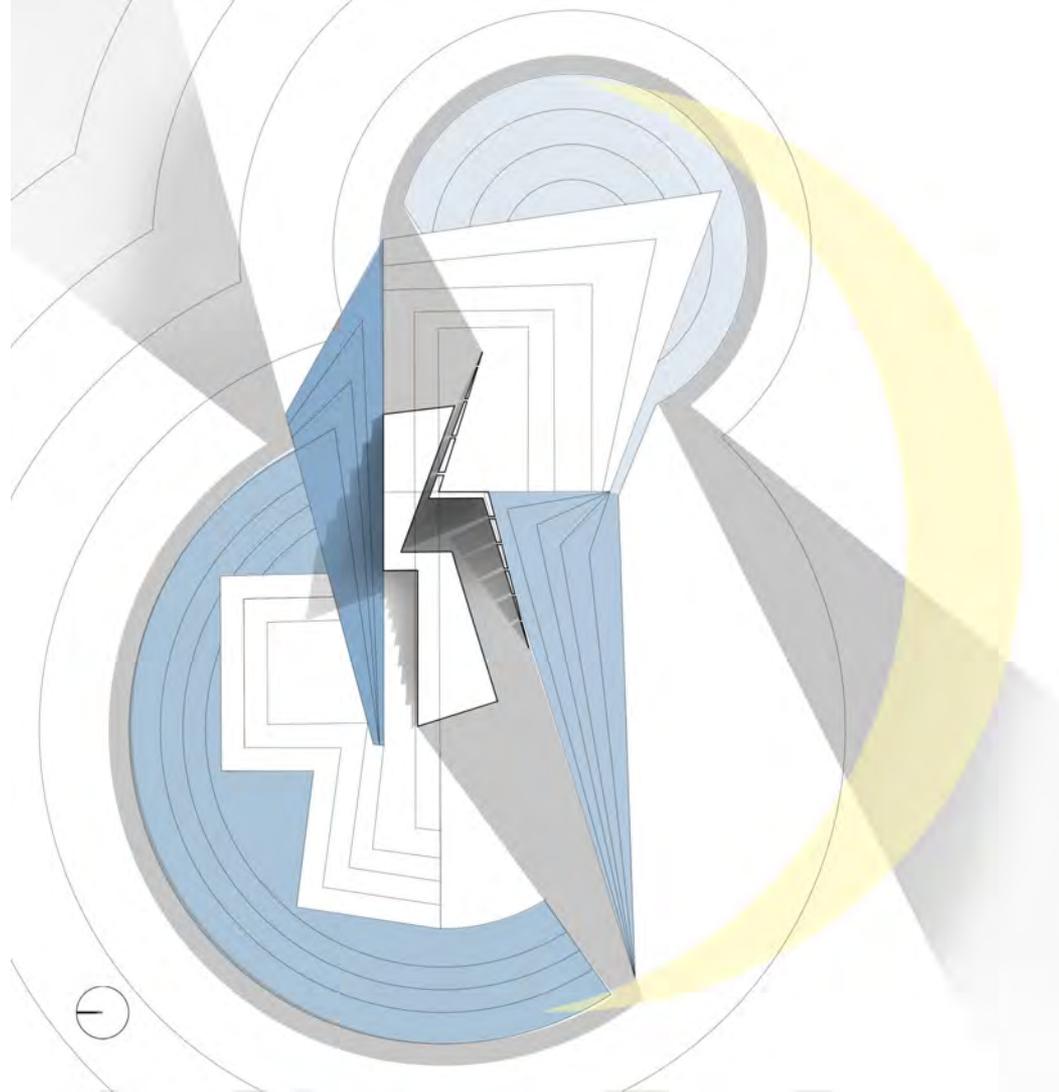
Final Parti



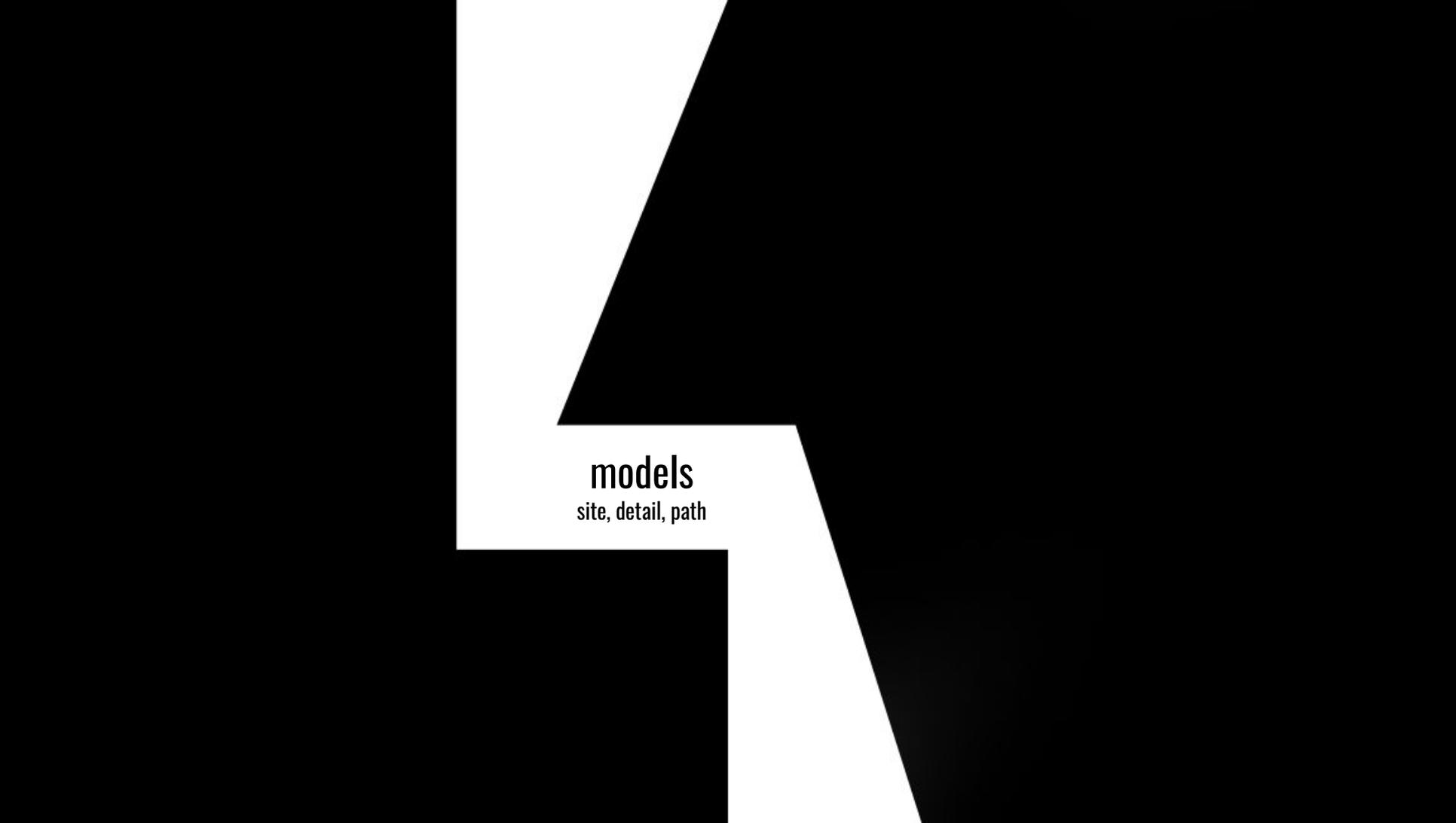
parti



site plan



site analysis

A large, stylized white number '4' is centered on a black background. The number is composed of several geometric shapes: a vertical bar on the left, a horizontal bar at the top, a diagonal bar on the right, and a vertical bar at the bottom. The text 'models' and 'site, detail, path' is positioned within the white space of the number.

models
site, detail, path

morning



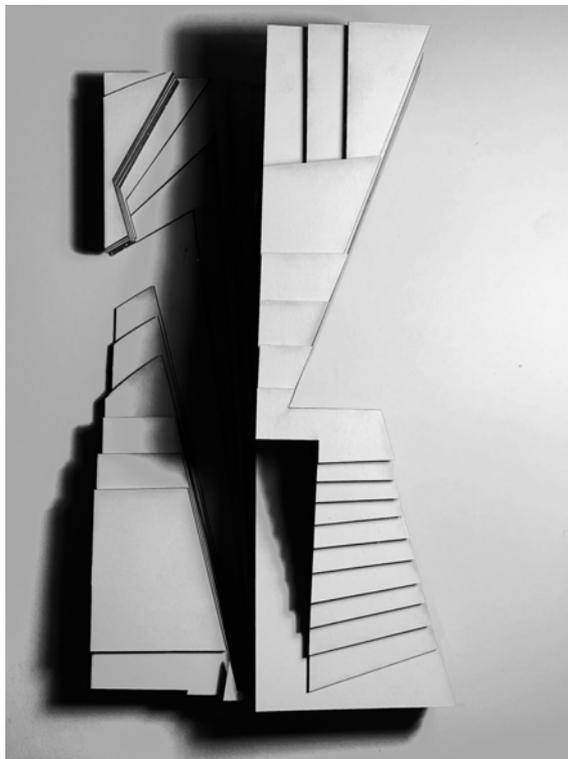
noon



afternoon

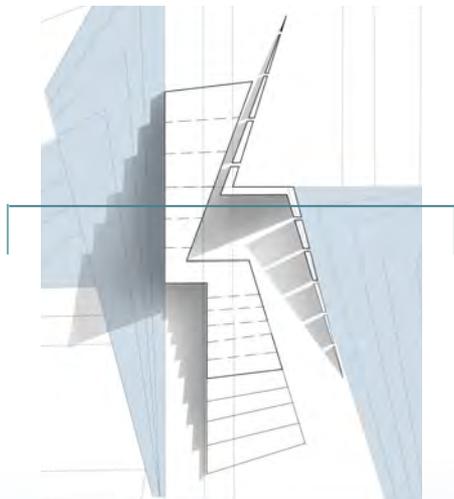


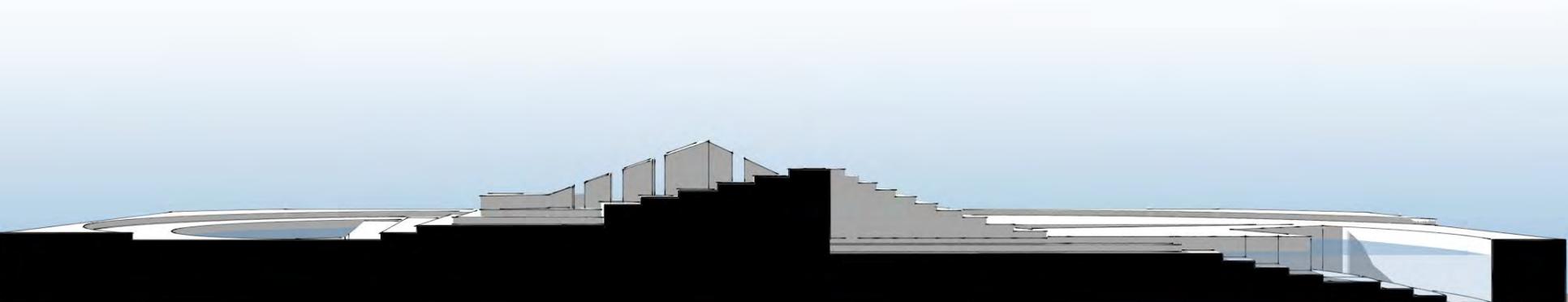
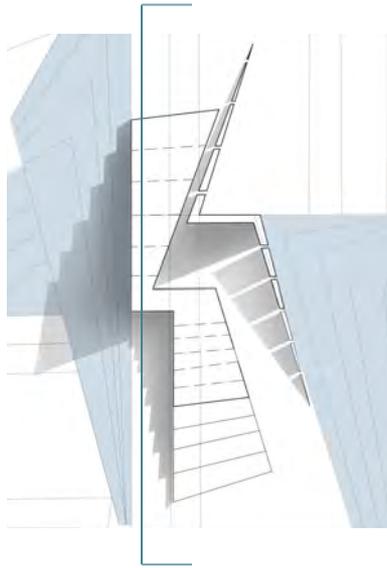
split detail

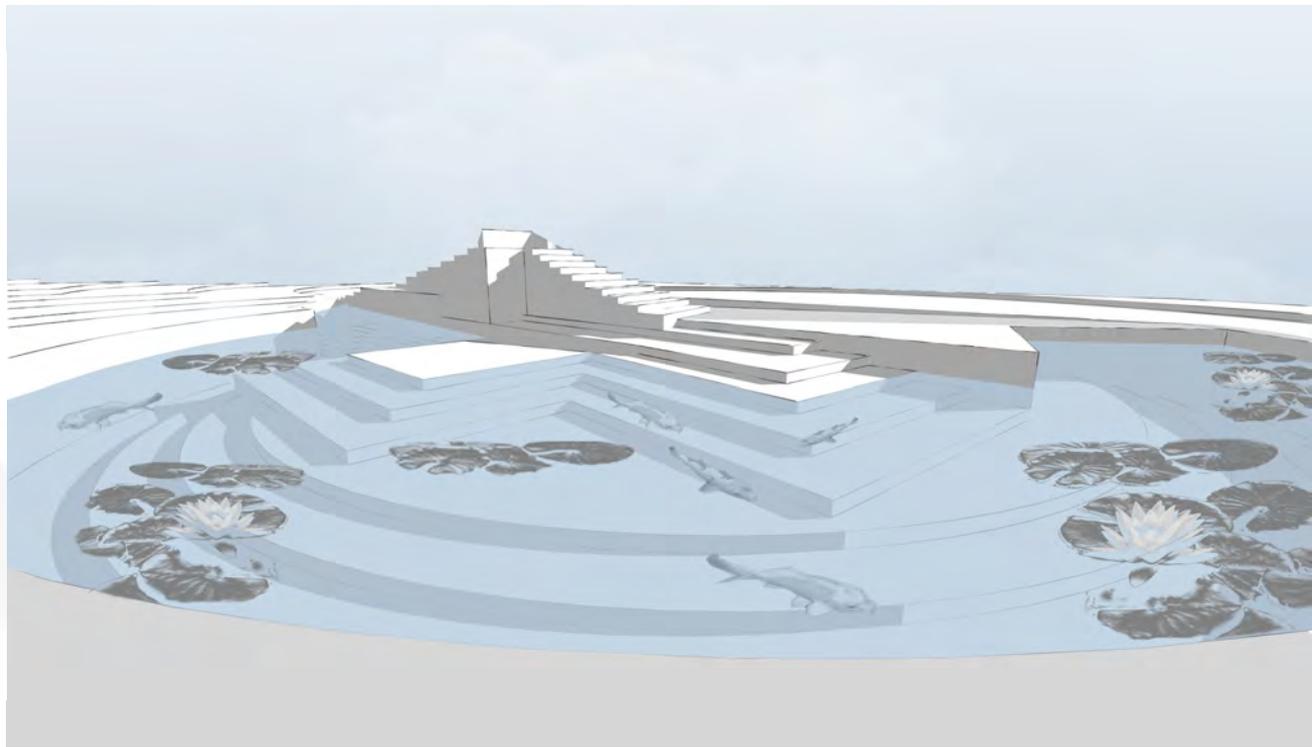
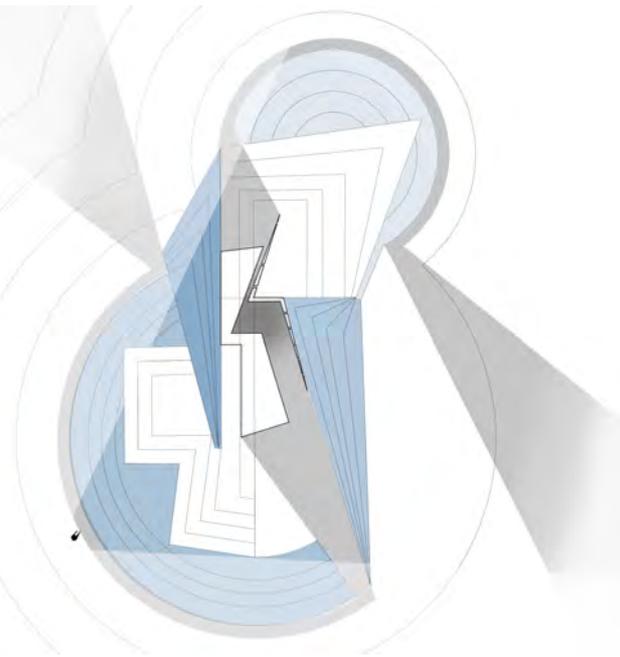


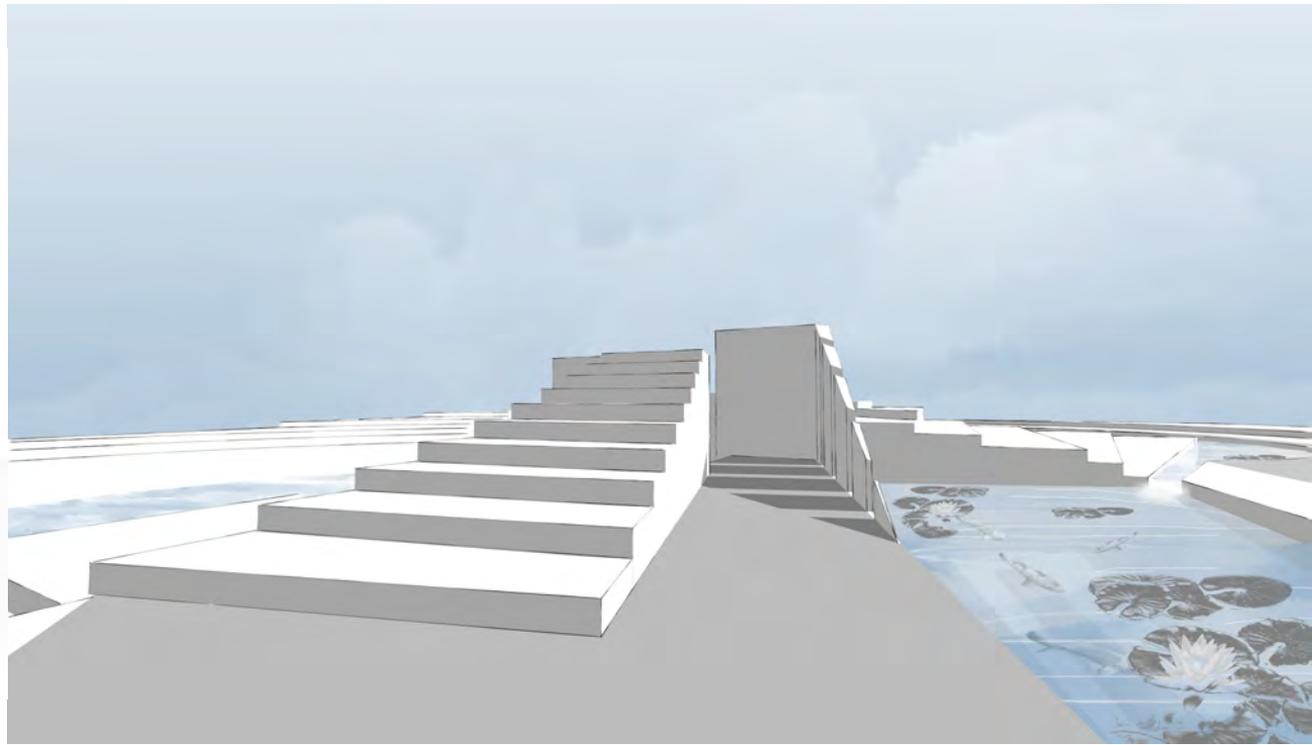
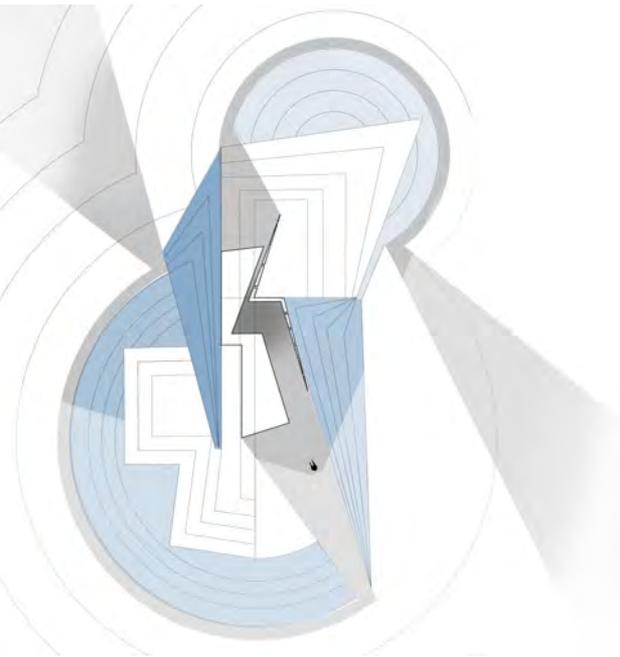
The image features a stark black background with several white geometric shapes. A large white shape on the left side is composed of a vertical rectangle, a horizontal rectangle extending to the right, and a diagonal line connecting the top-right corner of the horizontal rectangle to the top edge of the vertical rectangle. Another white shape is a triangle pointing downwards, positioned above the horizontal part of the first shape. The text is centered within the white horizontal area.

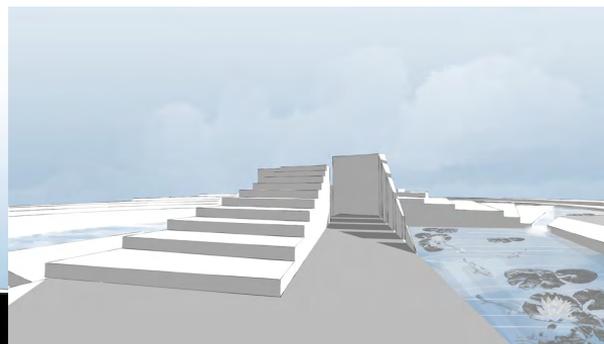
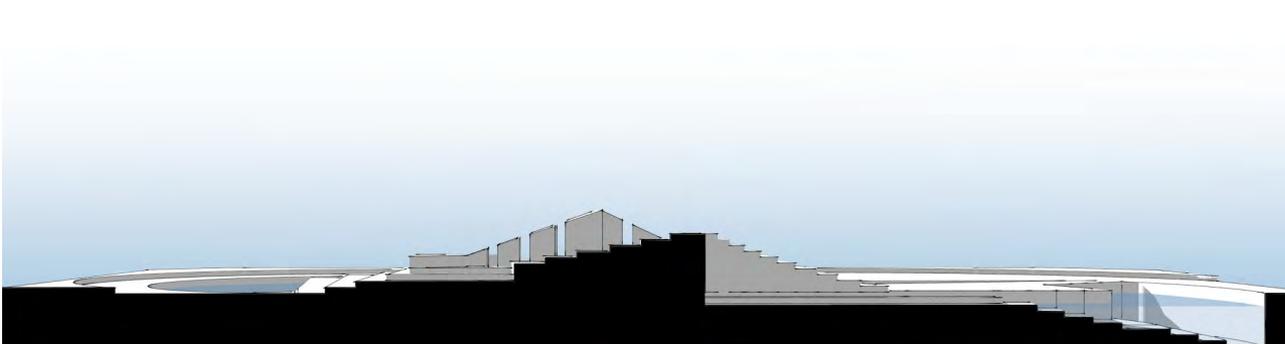
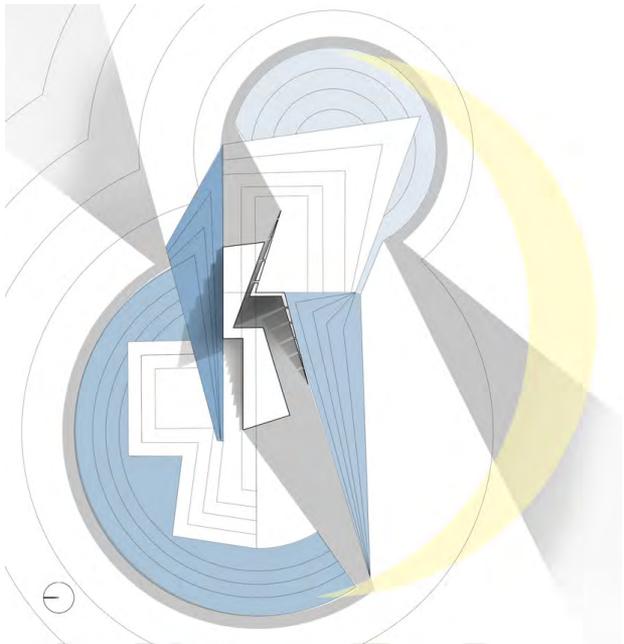
drawings
plan, section, experiential







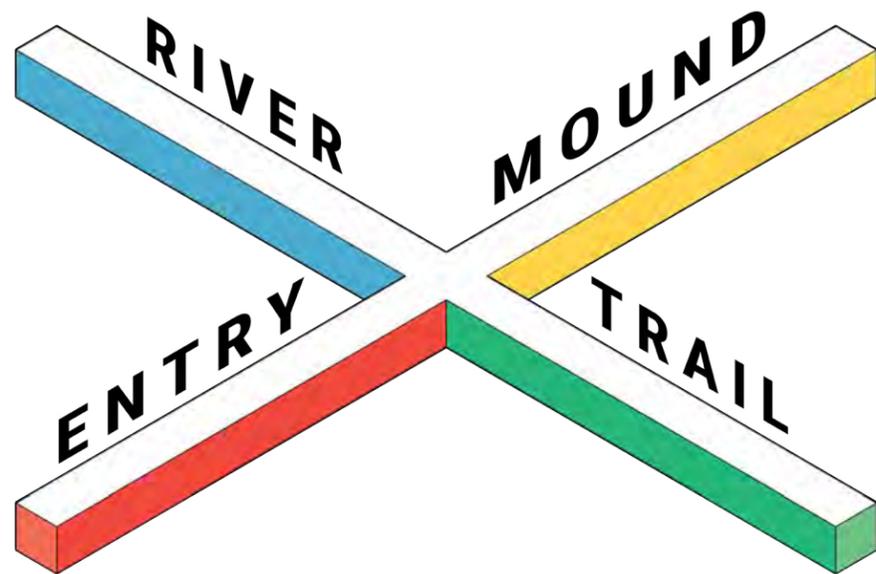




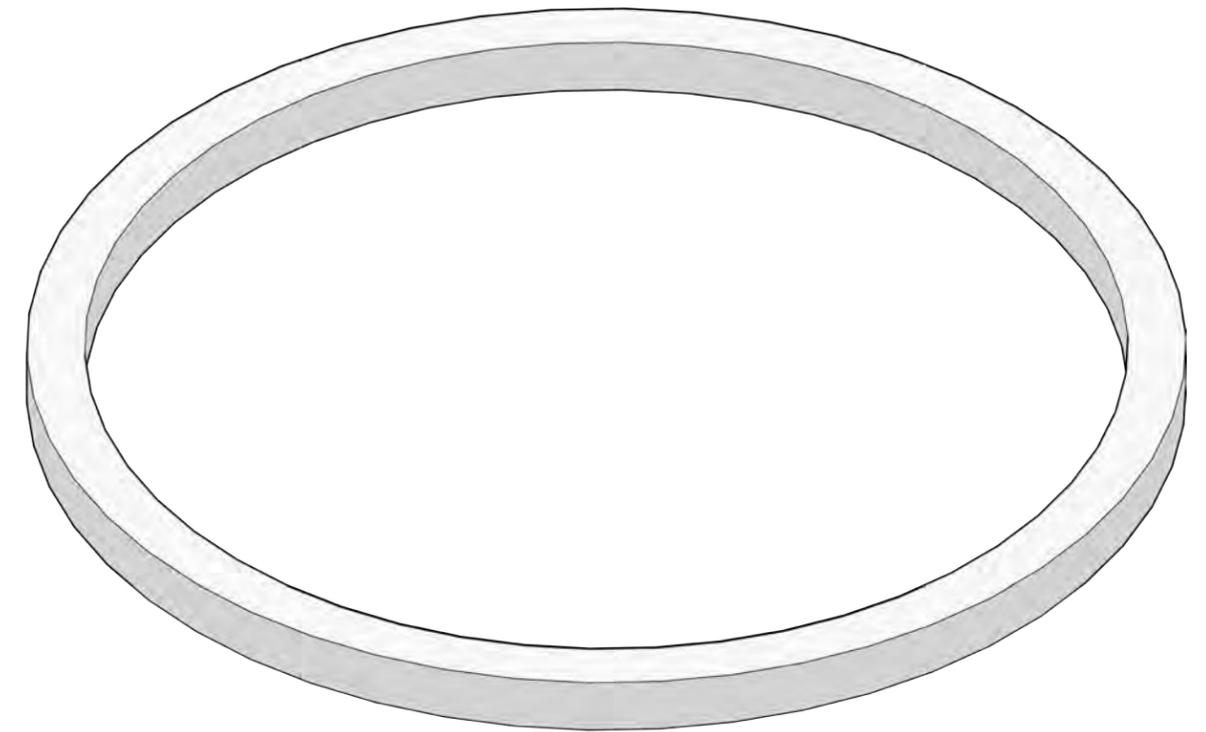


PROJECT 2.2 FINAL

JACK DALTON | PROF. BRYAN BELL



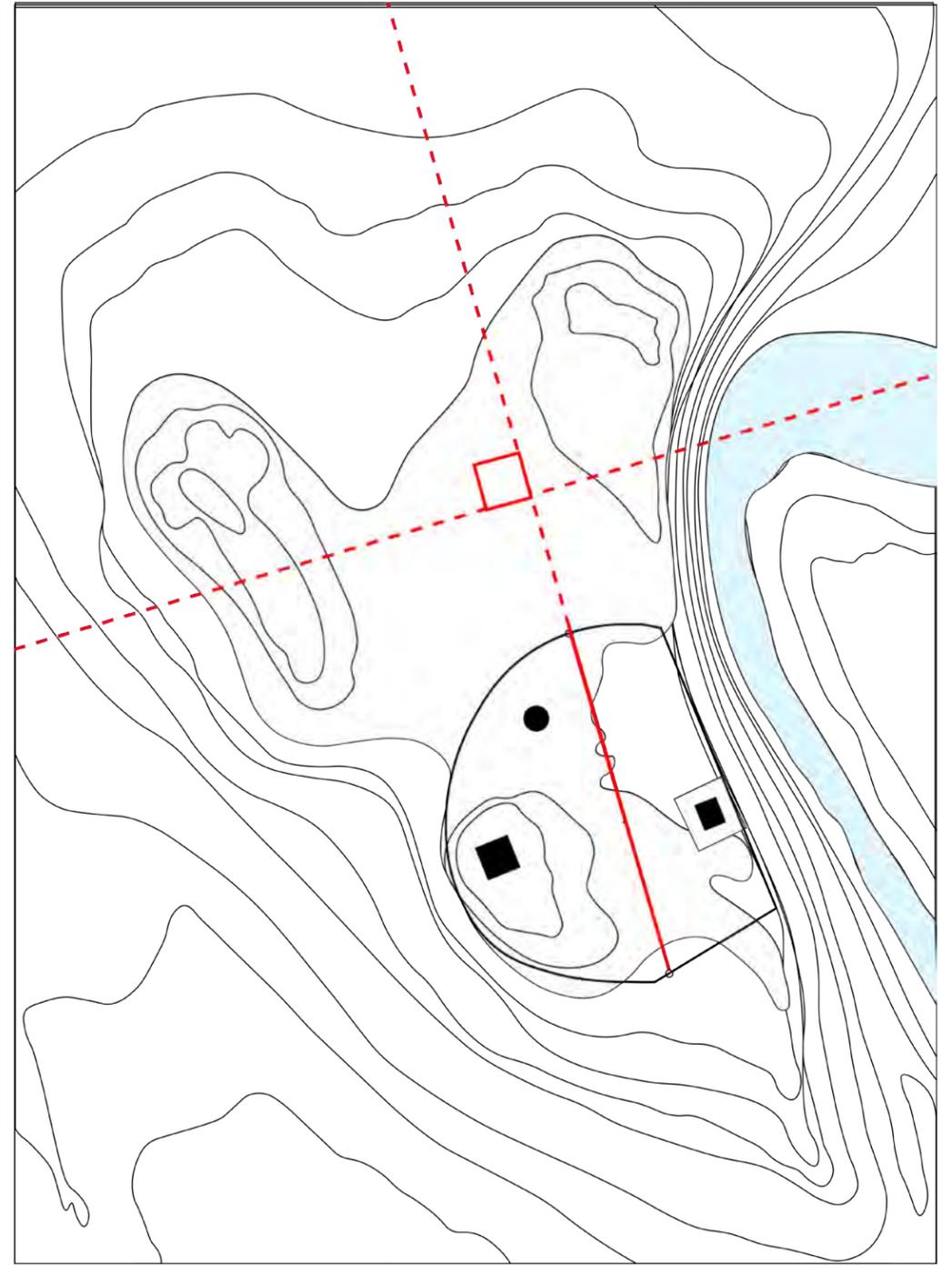
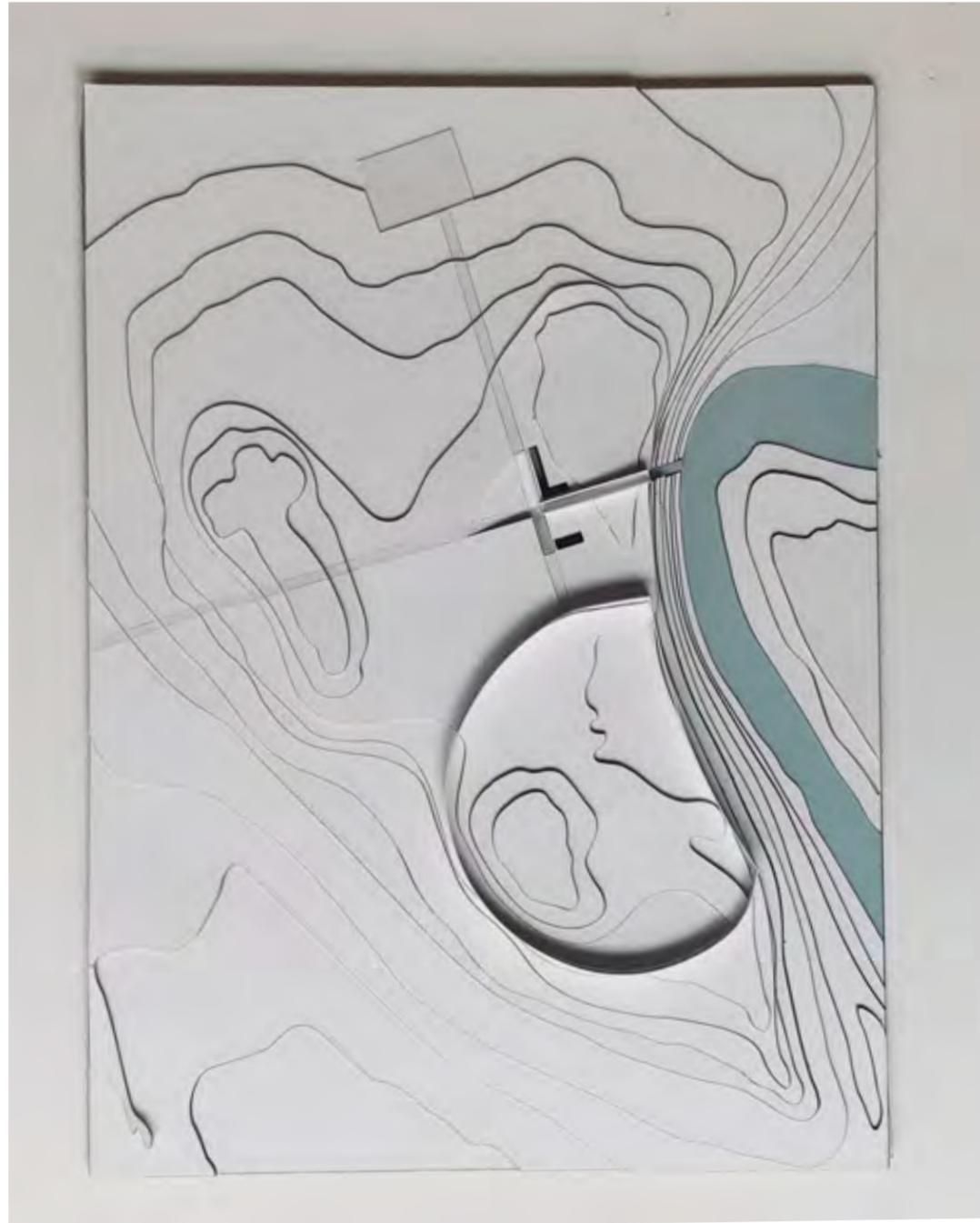
NEW

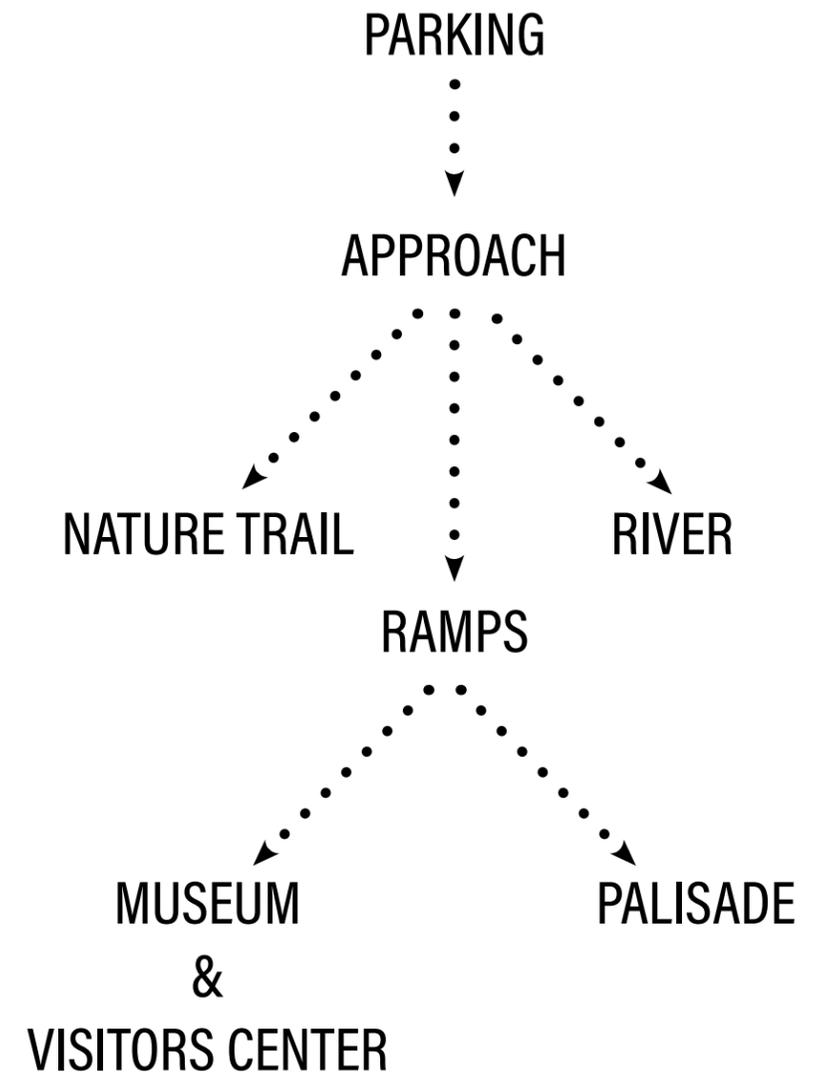


OLD

The identifiable juxtaposition of the "X" and the "O"

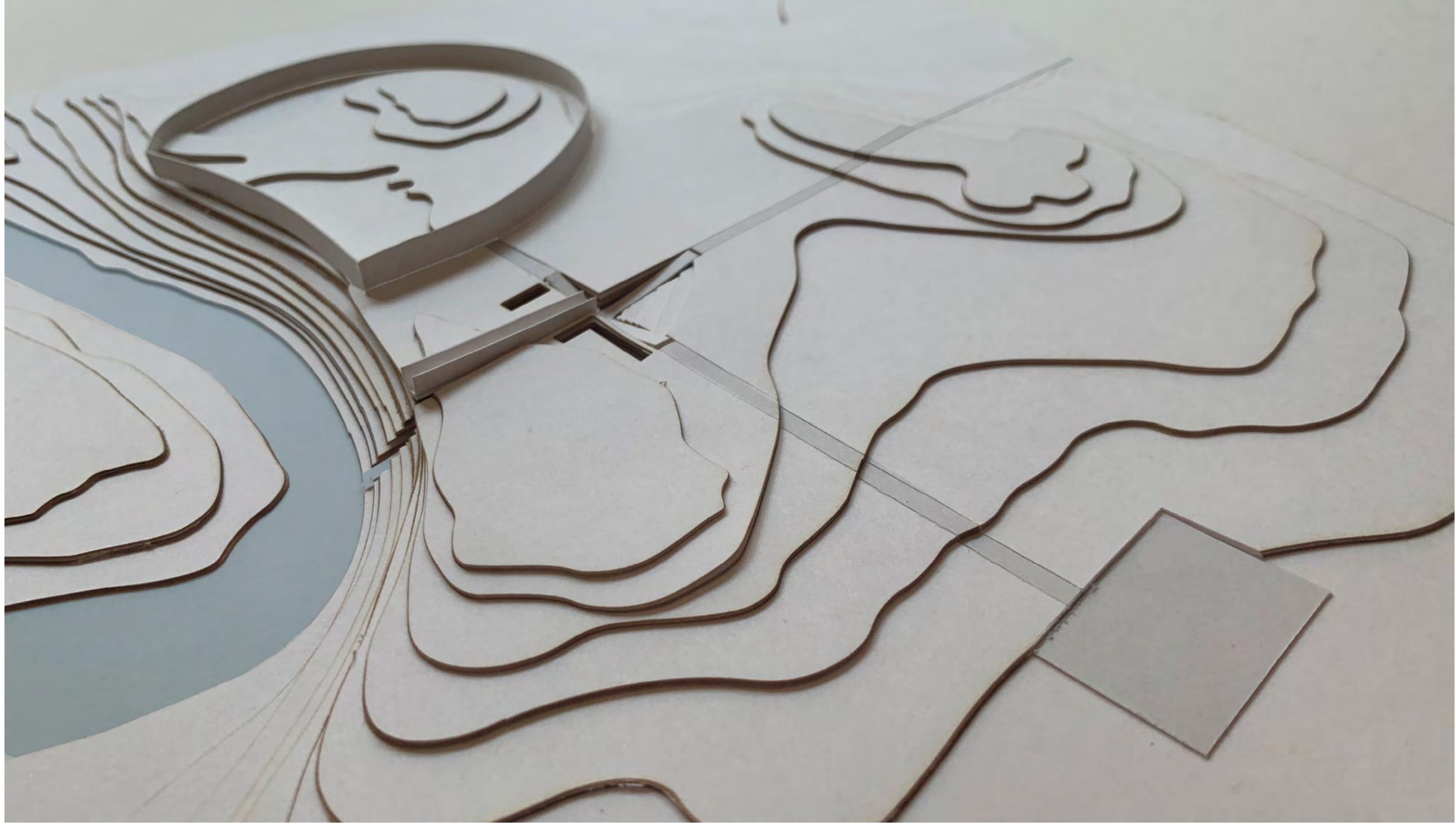
OVERVIEW







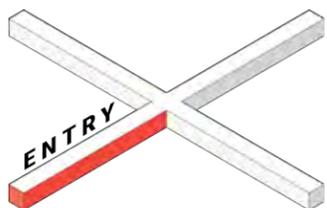
APPROACH

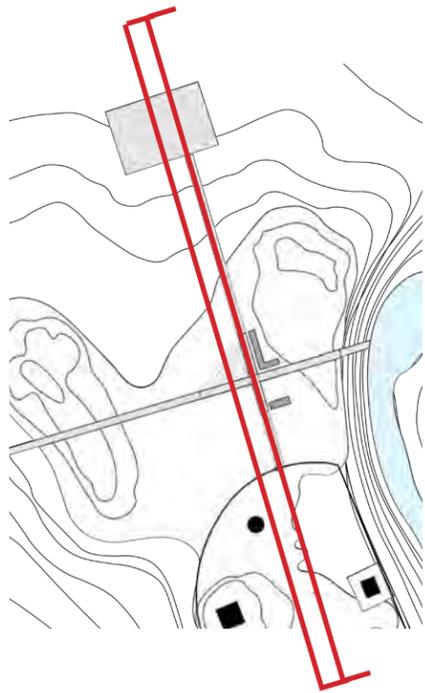


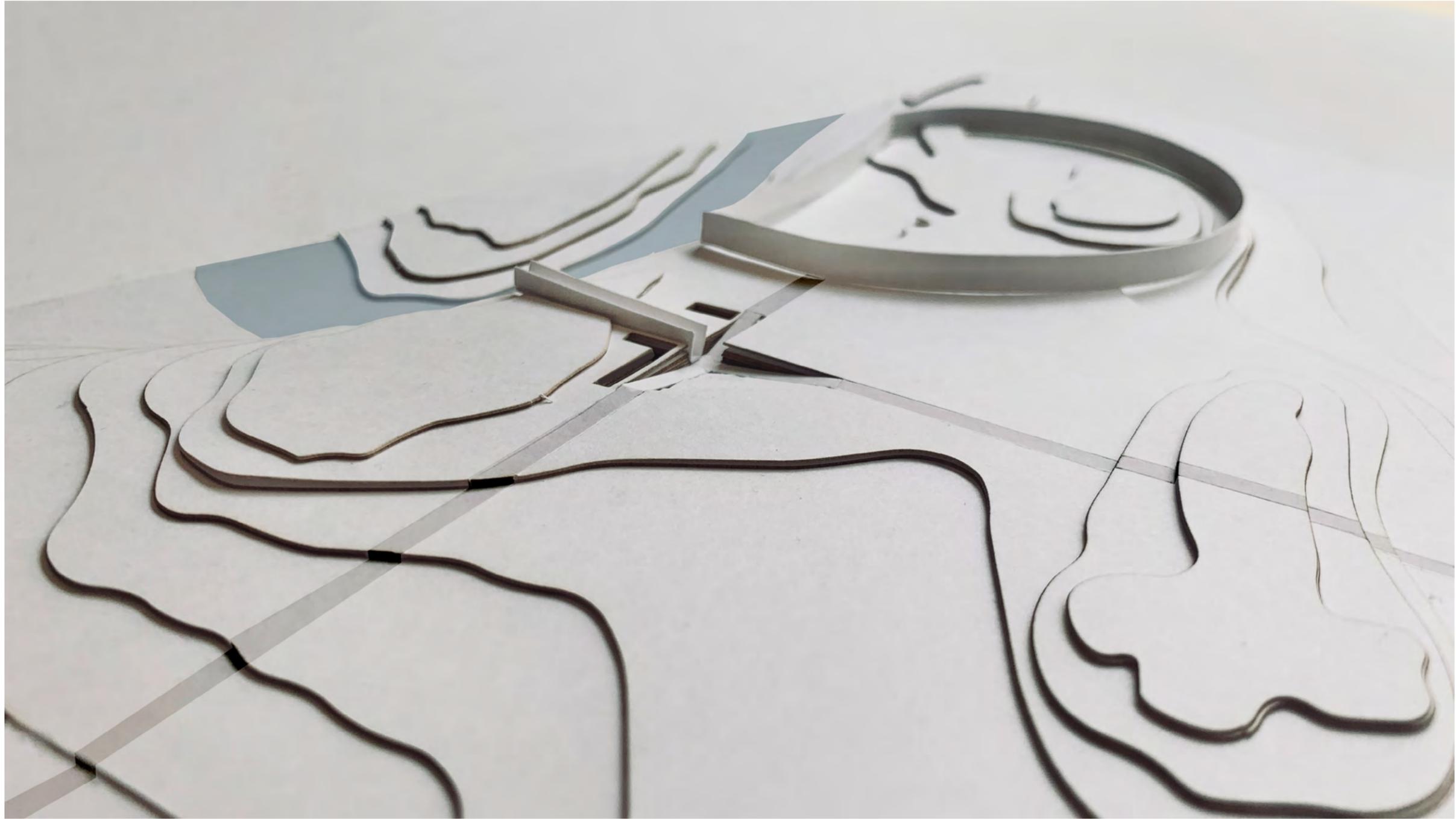


APPROACH | PALISADE VIEW

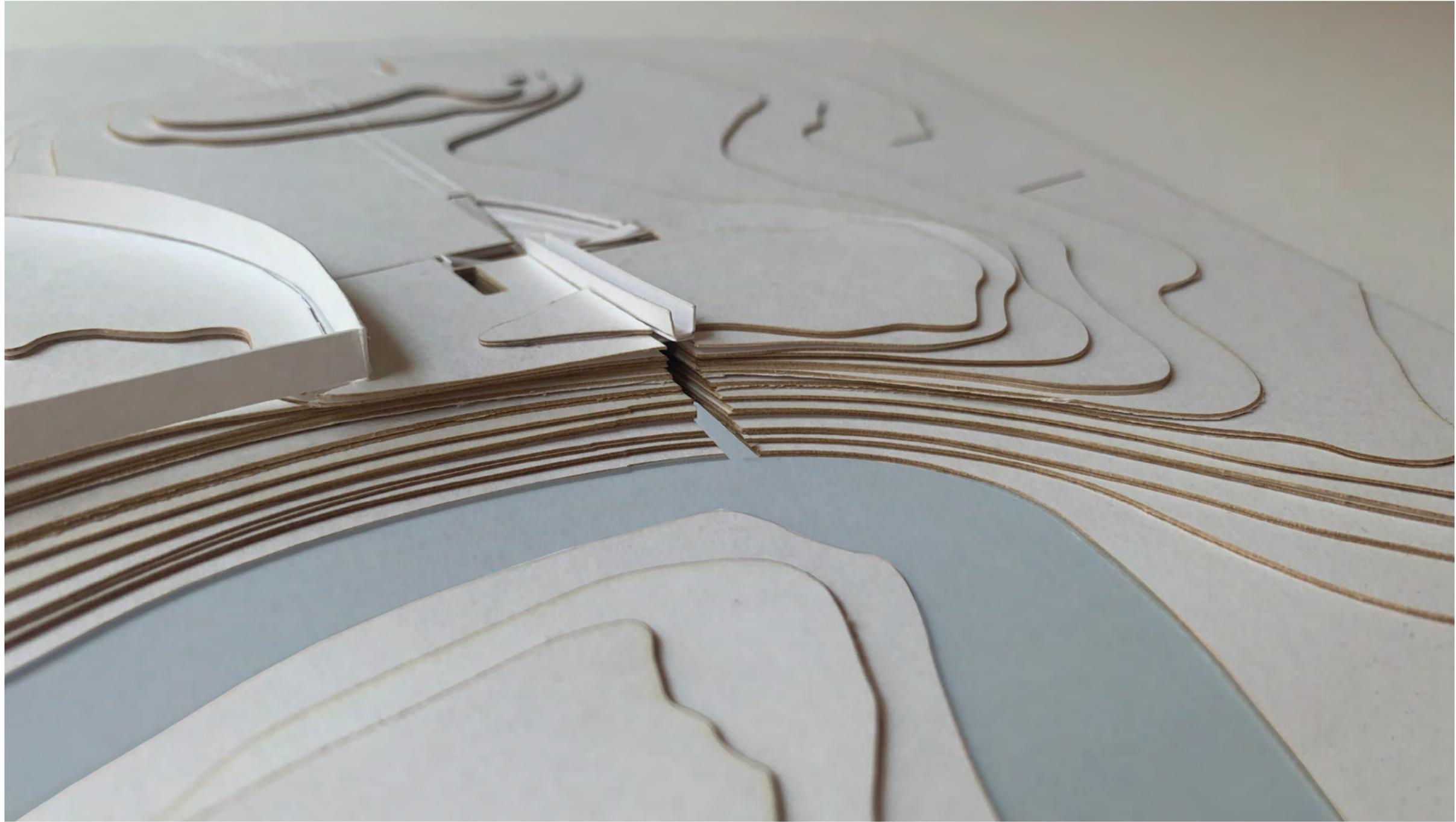
A gentle slope that presents the approaching subject with a simple choice of directions

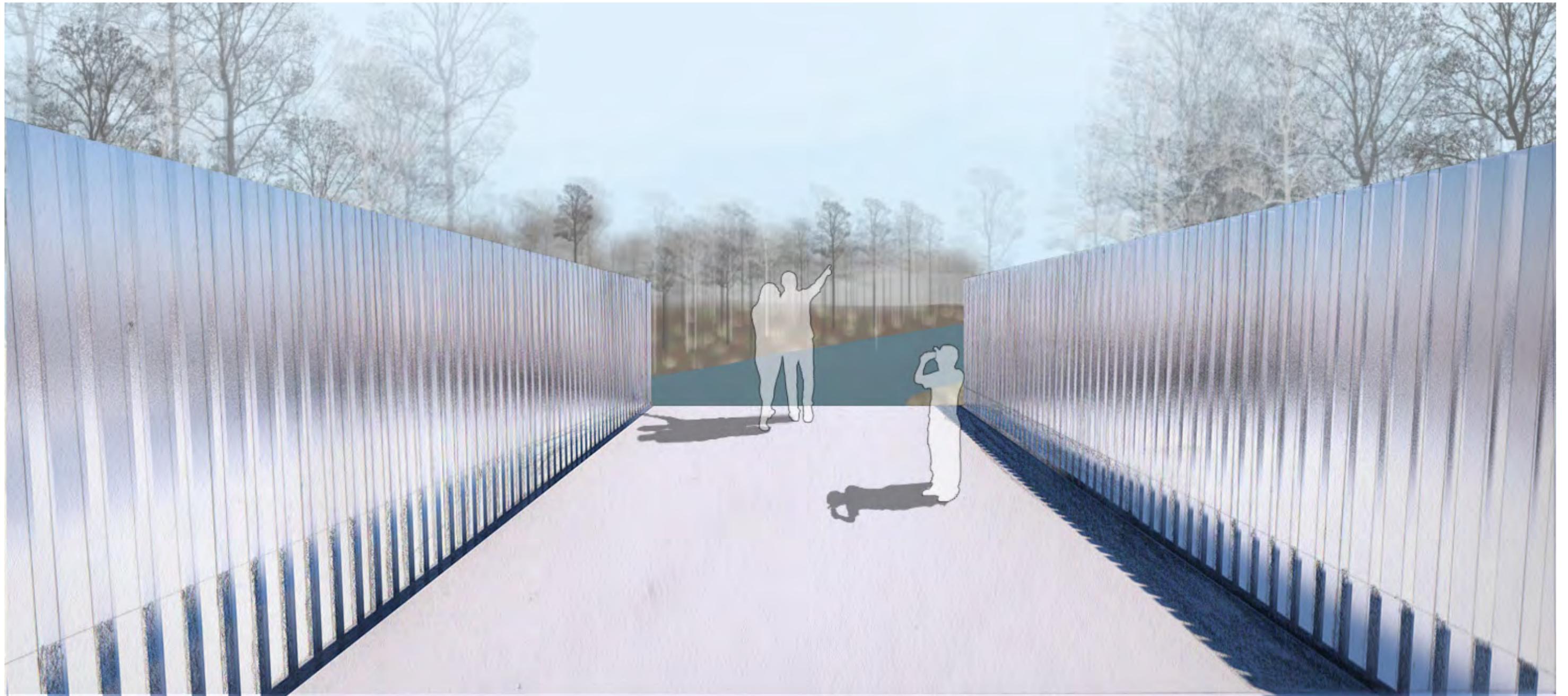






MEMORIAL RAMP

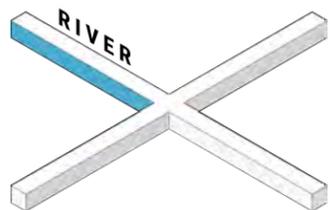


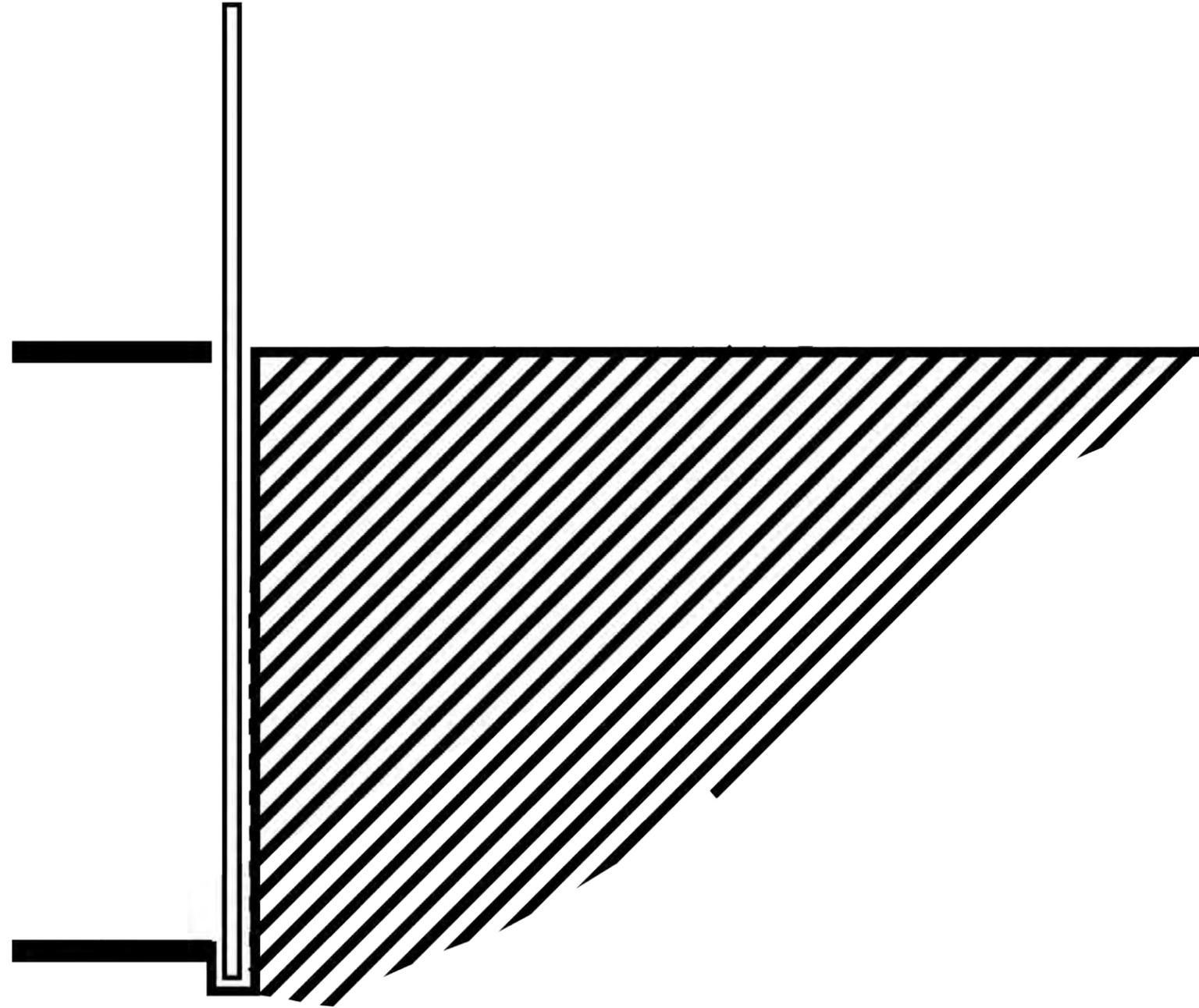
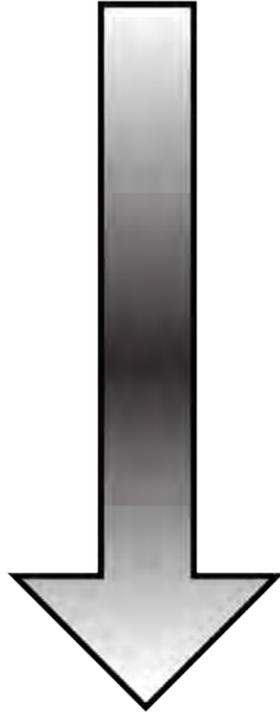
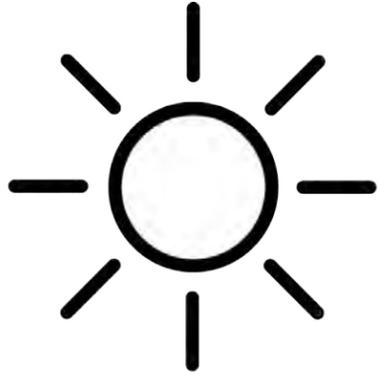


DURING SPRING EQUINOX

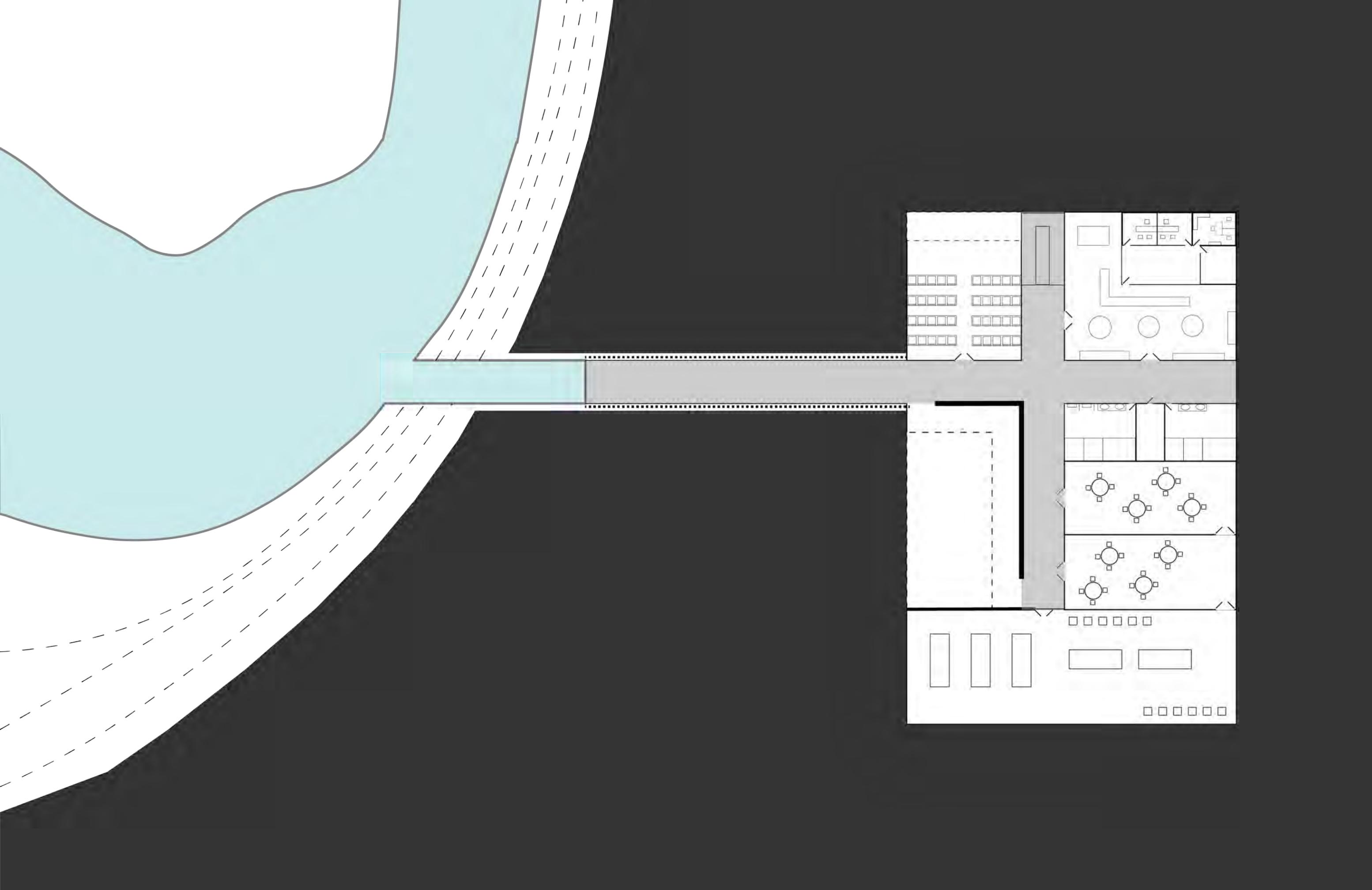
VIEW THROUGH MEMORIAL SPACE

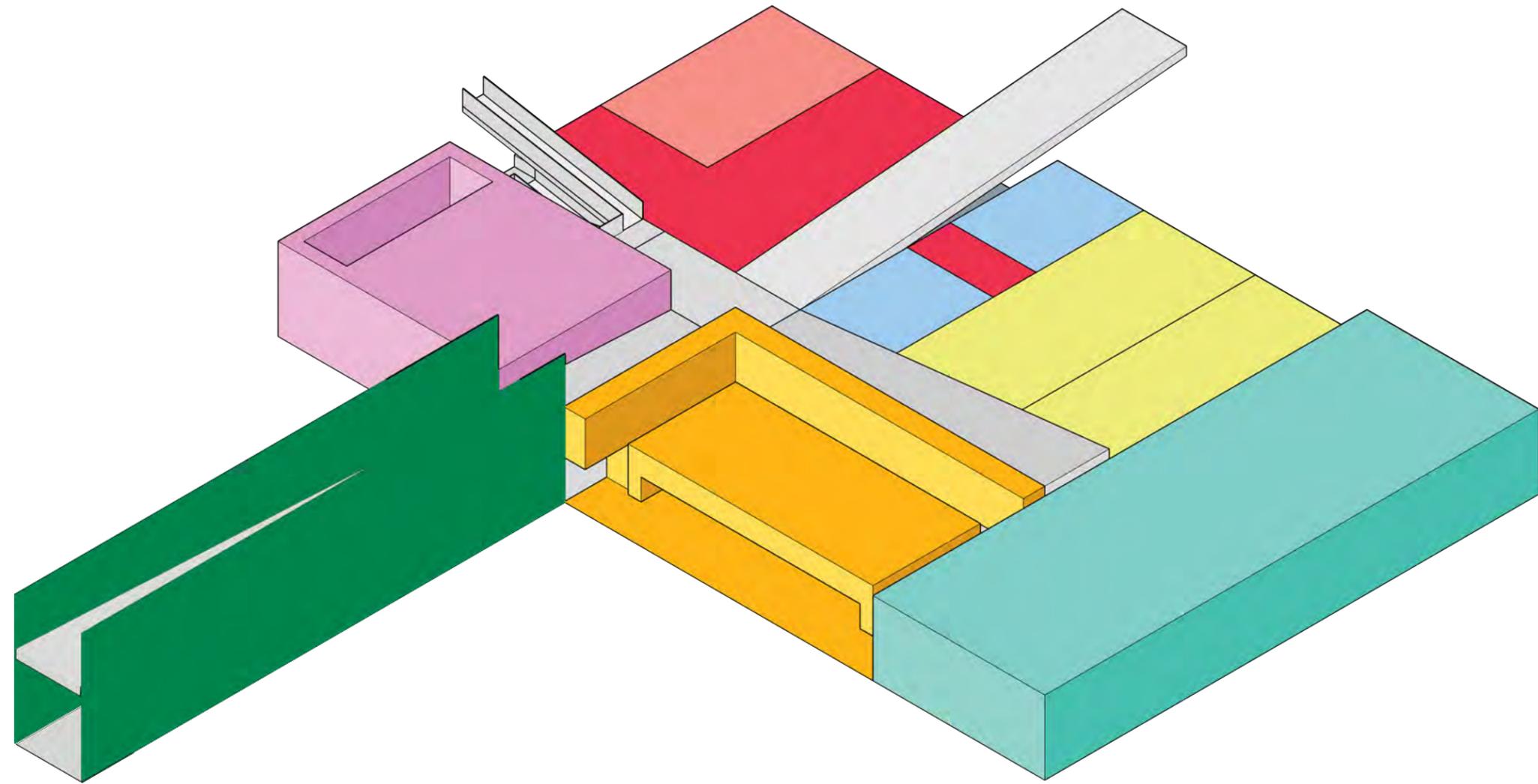
Axis that commemorates, and brings attention to, the larger site context of Town Creek





SUBTERRANEAN SPACES





 *GIFT SHOP & STORAGE SPACE*

 *OFFICE SPACE*

 *STRATIGRAPHY ROOM*

 *CLASSROOMS*

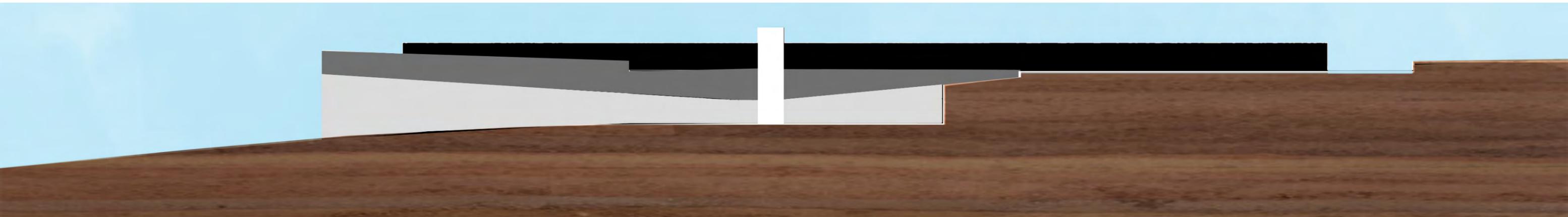
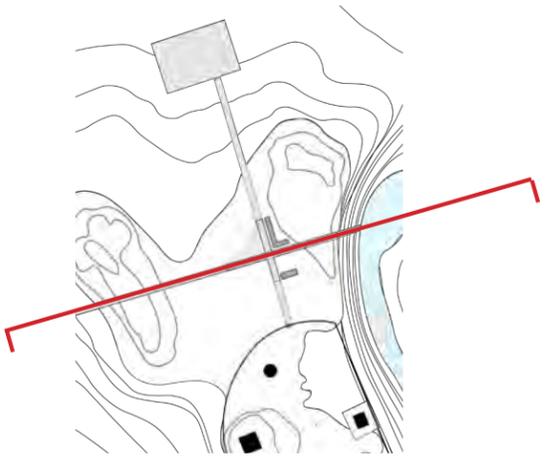
 *MEMORIAL SPACES*

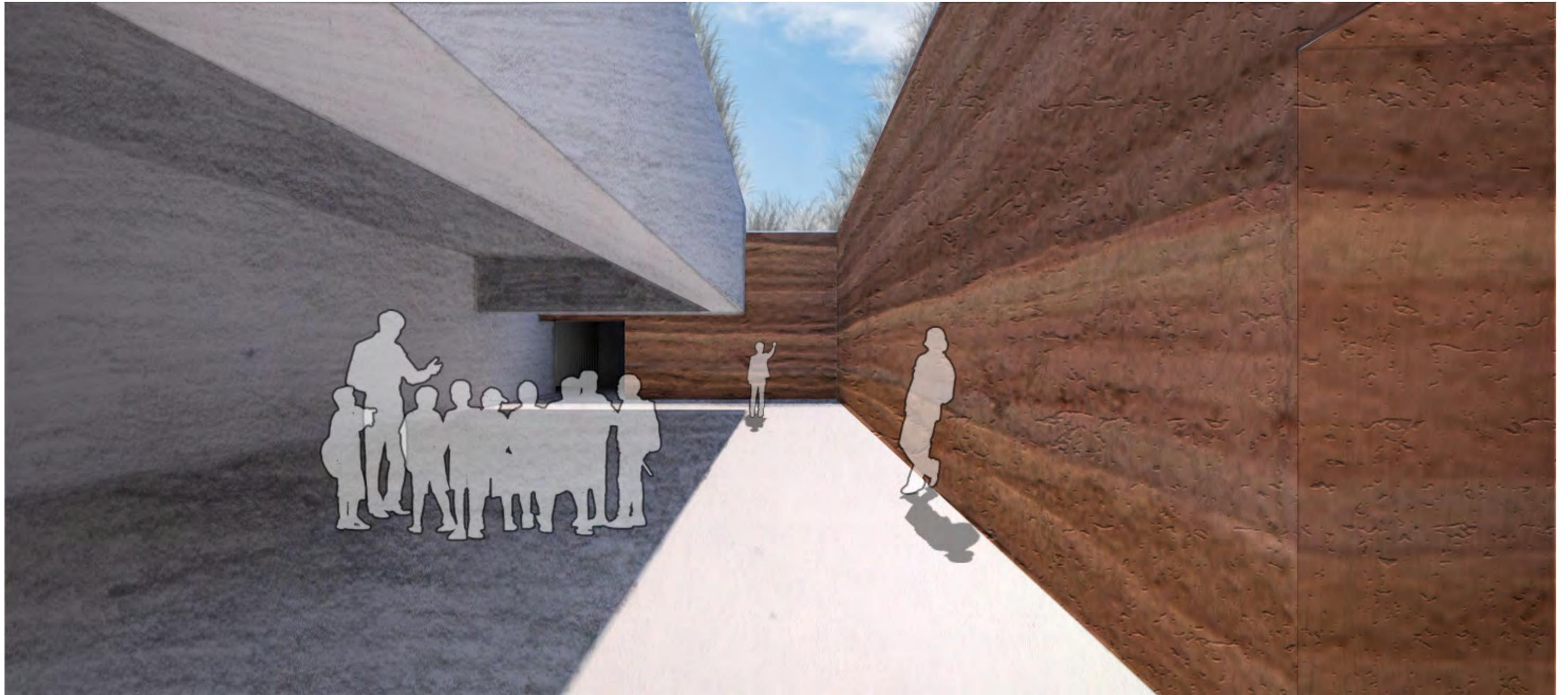
 *MUSEUM*

 *BATHROOMS*

 *AUDITORIUM*

 *CIRCULATING ELEMENTS*

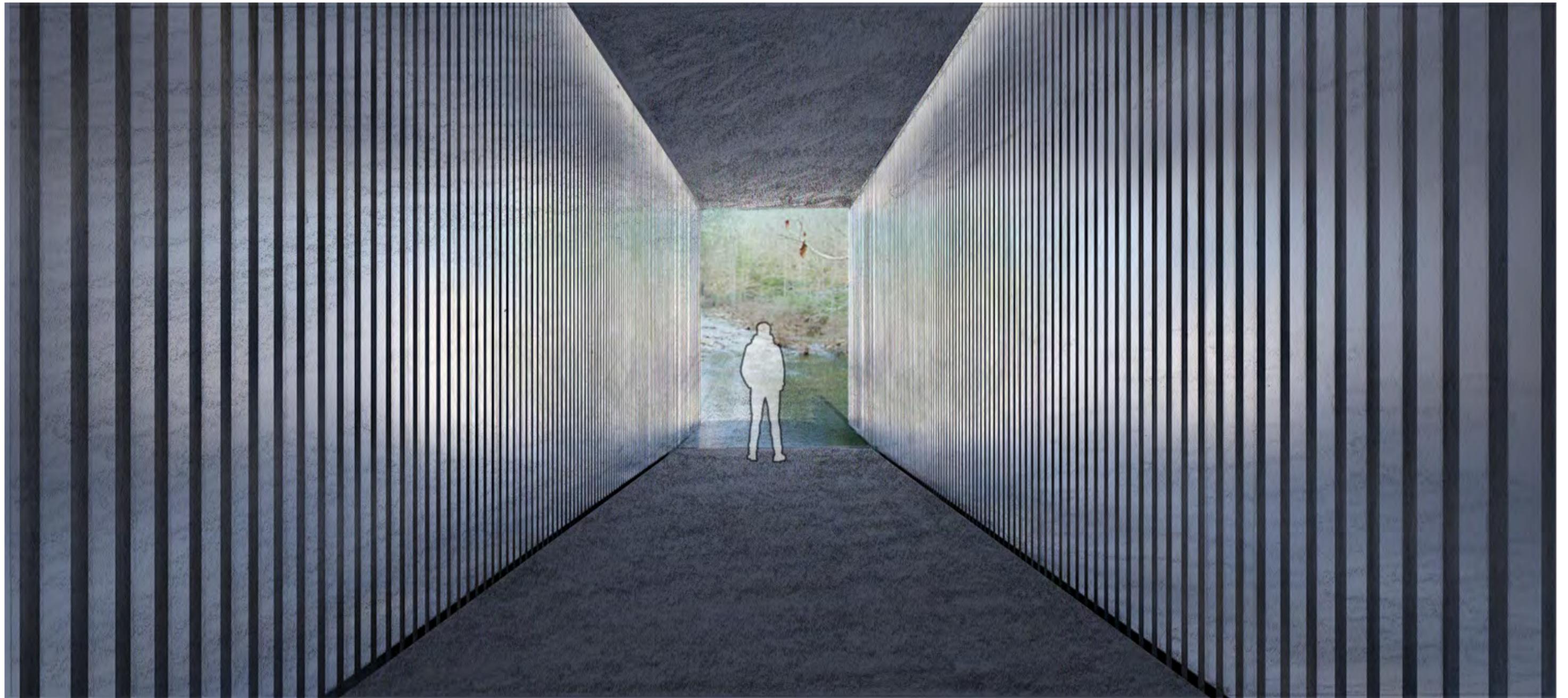




DURING SPRING EQUINOX

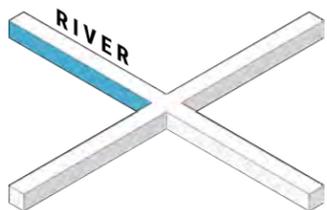
GATHERING SPACE & LEARNING CENTER

An exposed area that brings fresh air and natural light beneath the surface while also creating a space that focuses on the importance of stratigraphy



VIEW THROUGH CENOTAPH TOWARDS RIVER

Passage that reconnects the buried with the river. It is a peaceful and powerful space that honors those still buried beneath the surface



DRAFT 11-8-2018

HON 299 Section 002 Exploring the Discipline of Architecture

Spring 2019, 3 Credit Hours

Monday 1:30pm - 4:15pm *This meeting is required.*
310 Leazar Hall

Instructors

Dr Kristen J Schaffer

Email: kjschaff@ncsu.edu

Office Location: 301A Brooks Hall

Office Hours: TBD

Jessica Lynn Knesnik

Email: jlklink@ncsu.edu

Office Hours: By Appointment

Bryan Bell

Email: bbell@ncsu.edu

Office Location: 305C Brooks Hall

Office Hours: TBD

Course Description

This seminar will be team taught by three distinguished faculty members at the College of Design's School of Architecture and will explore the diverse discipline of Architecture through three distinct lenses. Each professor will lead a five week module based on their expertise and research. Dr. Kristen Schaffer will begin the course with a focus on global architectural history exposing relationships between architecture and its socio-cultural and religious contexts and heritages. Professor of Practice Jessica Knesnik will focus on how architects use drawing and diagramming to analyze concepts introduced in Dr. Schaffer's module. Students will synthesis architectural principles of form, space, and site/context through constructing their own analytical diagrams of important architectural precedents. Professor Bryan Bell's module will focus on public interest architecture and the ethical dimensions of contemporary practice to serve diverse communities traditionally underserved by design, including introducing students to SEED certification and highlighting innovative practice case studies.

This seminar is part of the University Honors Program. It is repeatable if content varies.

Learning Outcomes

After successfully completing this course, students will be able to:

- Discuss examples of architecture in terms of cultural and religious contexts;
- Describe examples of architecture in terms of architectural forms and principles verbally and through visual diagrams;
- Coherently relate historical concepts and definitions of diagrams as they relate to the field of architecture, critically analyzing the role of diagrams in practice and academia;
- Create diagrams to isolate, analyze, and interpret fundamental architectural forms and principles.
- Analyze and evaluate diagrams (their own work and the work of others) based on their clarity and effectiveness. [Clarity, Craft, Content]
- Describe principles of Public Interest Architecture through case studies.

Course Structure

The course will be divided into 3, 5-week modules. Each module will meet for a weekly, 3-hour seminar containing lectures, case studies, and reading discussions along with a module long assignment.

Course Materials

Text

All required readings will be uploaded to the course Moodle page or the library's digital reserves. Physical copies of the readings will be available on the reserve shelf in the Harrye B. Lyons Design Library in Brooks Hall.

Materials

Roll or pad of trace paper - \$10
Graphite Pencil Set - \$10
Thick and Thin Markers - \$2
Drafting Triangle - \$10

Requisites and Restrictions

Prerequisites

HON student

Co-requisites and Restrictions

None.

General Education Program (GEP) Information

GEP Category

Visual and Performing Arts

GEP Category Objectives

Each course in the Visual and Performing Arts category will provide instruction and guidance that helps students to:

1. deepen their understanding of aesthetic, cultural, and historical dimensions of artistic traditions;
and
 - *After successfully completing this course, students will be able to:*
 - *Discuss examples of architecture in terms of cultural and religious contexts and heritages; and*
 - *Students will use contemporary and historic examples of architectural diagrams to construct coherent explanations of the various roles diagramming plays in the analysis, design, and presentation of architectural solutions.*
2. strengthen their ability to interpret and make critical judgments about the arts through the analysis of structure, form, and style of specific works;

After successfully completing this course, students will be able to:

- *"Read" or de-code concepts of form and composition from existing architectural diagrams through knowledge of visual literacy principles;*
- *Describe verbally and visually examples of architecture in terms of architectural forms and design principles;*
- *Accurately collect and analyze complex systems of information relating to a building, its physical site, and its social community; and*
- *Utilize diagrams to document their experience of an architectural work and to synthesize their own critical interpretation of concepts.*

3. strengthen their ability to create, recreate, or evaluate art based upon techniques and standards appropriate to the genre.

After successfully completing this course, students will be able to:

- *Construct diagrams that synthesize contextual analysis;*
- *Effectively convey complex networks of information both visually and verbally;*
and
- *Select appropriate graphic techniques to present different types of analysis.*

How This Course Will Fulfill GEP Category Objectives

For GEP Objective 1:

Students will be required to turn in 1-3 page weekly response papers with specific prompts related to that coming week's seminar topic and preparatory readings where students will use examples from the readings to discuss and describe the following:

- In Module 1 readings and papers will mainly focus on architecture in terms of its cultural and religious context and its form and compositional principles.
- In Module 2 readings and papers will mainly focus on the history of different types/uses of diagrams in practice and academia.
- In Module 3 readings and papers will mainly focus on the ethical and political dimensions of architectural practice.

For GEP Objective 2:

In Module 2 students will be required to pin-up and present diagrams weekly and discuss their continued analysis and interpretations of their assigned built works. Students will be required to visit a local work of architecture and from their experience develop a clear, concise viewpoint/interpretation of the essential components of that architectural work. Across weekly drafts students will iterative develop visual language to clarify their analysis and interpretation, and ultimately communicate it to others.

For GEP Object 3:

Students will present a final presentation of diagrams and analysis. They will be required to effectively address this series of questions:

- Does the student clearly communicate a hierarchy of information from analyses?
- Does the student exercise insight in diagramming spatial qualities?
- Does the student elaborate on ideas of deduction of the role of the diagram in the design process of the built work?
- Does the student effectively abstract the built work into essential components?
- Has the student skillfully and intentionally composed a series of diagrams that display skill in graphic techniques?

* These questions will also be asked weekly during class pin-ups to track student's progress.

GEP Co-requisites

This course does not fulfill a General Education Program co-requisite.

Transportation

Students will be required to provide their own transportation for this class. Students will be asked to visit a local architectural site during Module 2 outside of class.

Safety & Risk Assumptions

None.

Grade Components

Each Module is 1/3 of a student's grade. Class participation is essential to your grade: you must be an active member during class time, contributing to class discussion and raising pertinent questions related to the readings.

Module 1:

- Response Papers (5 @ 15% each) 75%
- Participation: 25%

Module 2:

- Response Papers: 30%
- Weekly Diagrams and Case Studies: 30%
- Final Presentation : 15%
- Participation: 25%

Module 3:

- Response Papers: 30%
- Case Study Presentation: 20%
- Final Reflection Paper: 25%
- Class Participation: 25%

Participation Rubric

Participation counts for 25% of your grade. Participation will be evaluated with the following rubric:

Criteria	Missing	Below Expectations	Meets Expectations	Leadership Behavior
Active Participation	Absent or does not contribute	Few contributions, seldom volunteers but does respond to direct questions	Voluntarily contributes to discussion without prompting	Actively contributes to discussion, initiates discussion on issues related to class topics
Relevance to topic under discussion	Contributions are off topic and distract class	Contributions are sometimes off topic or distracting	Contributions are always relevant	Contributions are always relevant and promote in-depth analysis of material
Evidence of Preparation	Not prepared, does not appear to have read materials before class	Appears to have read, but not closely or did not read all of materials	Clearly read and considered the assigned materials in advance of class	Consistently well prepared and investigates and shares relevant materials not explicitly assigned
Listening	Inattentive or disruptive	Participates occasionally, but does not respond to contributions of others	Participates regularly without monopolizing discussion, and listens and responds to contributions of others	Listens without interrupting, responds to contribution of others when appropriate, and promotes active participation by others

Letter Grades

This Course uses Standard NCSU Letter Grading:

- 9
7 ≤ **A+** ≤ 100
- 9
3 ≤ **A** < 97
- 9
0 ≤ **A-** < 93
- 8
7 ≤ **B+** < 90
- 8
3 ≤ **B** < 87
- 8
0 ≤ **B-** < 83
- 7
7 ≤ **C+** < 80
- 7
3 ≤ **C** < 77
- 7
0 ≤ **C-** < 73
- 6
7 ≤ **D** < 70
- 6
3 ≤ **D** < 67
- 6
0 ≤ **D-** < 63
- 0 ≤ **F** < 60

Requirements for Credit-Only (S/U) Grading

In order to receive a grade of S, students are required to take all exams and quizzes, complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U)

grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to <http://policies.ncsu.edu/regulation/reg-02-20-15>.

Requirements for Auditors (AU)

Information about and requirements for auditing a course can be found at <http://policies.ncsu.edu/regulation/reg-02-20-04>.

Policies on Incomplete Grades

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. The university policy on incomplete grades is located at <http://policies.ncsu.edu/regulation/reg-02-50-3>.

Late Assignments

Students will be given detailed assignment descriptions in class. Assignments will be due on the dates listed in the handouts or described in assignment presentations. Assignments must be posted or turned in according to the stated requirements for the assignment. Failure to turn in your work on time will result in a grade of zero. This includes printed materials for pinups. Late work will not be given partial credit unless it is due to an excused absence.

Attendance Policy

For complete attendance and excused absence policies, please see <http://policies.ncsu.edu/regulation/reg-02-20-03>

Full class attendance is a course requirement. It is each student's responsibility to inform faculty of circumstances or emergencies that will prevent him or her from attending class. Students shall receive excused absences for a reasonable number of anticipated absences as well as for emergencies as specified in the University Attendance Regulation policy (REG02.20.3). For regulations regarding Drop For Non Attendance, see RUL 02.20.01. Guidelines can be found online at http://www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.4.php. All excused absences must be documented in writing (email or hard copy) and be submitted no later than the first day the student returns to class. Any anticipated absences must be documented before missing class to receive an excused absence.

2 regular unexcused absences will reduce your final grade by 5%, 3 regular unexcused absences will reduce your final grade by 10%, and 5 (excused or unexcused) absences will result in a failing grade for the course. For example, if your grade averages to 92% before considering attendance, and you've had 3 unexcused absences your grade for the semester will be an 82%.

Makeup Work Policy

Students with an excused absence must make up work within one week of returning to class. Students are responsible for collecting all necessary assignments, presentation notes, and readings/discussion notes. Students with unexcused absences are expected to turn work in on time.

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at <http://policies.ncsu.edu/policy/pol-11-35-01>

Academic Honesty

See <http://policies.ncsu.edu/policy/pol-11-35-01> for a detailed explanation of academic honesty.

Honor Pledge

Your signature on any test or assignment indicates "I have neither given nor received unauthorized aid on this test or assignment."

Electronically-Hosted Course Components

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Statement for Students with Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office at Suite 304, Holmes Hall, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01) <https://policies.ncsu.edu/regulation/reg-02-20-01/>.

Non-Discrimination Policy

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <http://policies.ncsu.edu/policy/pol-04-25-05> or http://www.ncsu.edu/equal_op/. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Course Schedule

NOTE: The course schedule is subject to change.

Global Architectural History – 01/07/2019 - 02/11/2019

Dr. Kristen Schaffer will begin the course with a focus on global architectural history exposing relationships between architecture and its socio-cultural and religious contexts.

- Class 1: architecture and dwelling in the world
- Class 2: indigenous traditions of place-making
- Class 3: sacred sites
- Class 4: sacred building types
- Class 5: the symbolic power of architecture

Analyzing Architecture Using Diagrams – 02/18/2019 - 03/18/2019

Professor of Practice Jessica Klink will focus on how architects use drawing and diagramming to analyze concepts introduced in Dr. Schaffer's module. Students will synthesis architectural principles of form, space, and site/context through constructing their own analytical diagrams of important architectural precedents.

- Class 1: INTRODUCTION Lecture: Diagram and Drawing Types
- Class 2: DESCRIPTIVE DIAGRAMS
- Class 3: SCALE + PROCESS
- Class 4: CONTEXT + REPRESENTATION
- Class 5: THE MODE OF THE DIAGRAM

Public Interest Architecture – 03/25/2019 - 04/22/2019

Professor Bryan Bell's module will focus on public interest architecture and the ethical dimensions of contemporary practice to serve diverse communities, including introducing students to SEED certification and highlighting innovative practice case studies.

- Class 1: Serving the Public -- What Is a Public Profession?
- Class 2: Professional Ethics and Responsibility – Why Bother?
- Class 3: Global and Local Issues -- Does Design Have a Role?
- Class 4: The SEED Evaluation Method – Case Studies
- Class 5: Propose Your Own Public Interest Design Project – Workshop

Course Bibliography

Primary Text:

- Pae, Hyöng-min. *The portfolio and the diagram: architecture, discourse, and modernity in America*. Cambridge, MA: MIT Press, 2002.
- Clark, Roger H., and Michael Pause. *Precedents in architecture*. New York: Van Nostrand Reinhold, 1985.
- Williamson, Rebecca, and Joan Ockman. *Architecture school: three centuries of educating architects in North America*. Washington: Association of Collegiate Schools of Architecture.
- Crowe, Norman A., and Steven W. Hurr. *Visual Notes and the Acquisition of Architect*. No. 3 ed. Vol. Vol. 39. Journal of Architectural Education. Taylor & Francis, Ltd. rowe and Steven W. Hurtt
- Stan Allen. "Diagrams Matter." *ANY: Architecture New York, Diagram Work: ATA MECHANICS FOR A TOPOLOGICAL AGE, No.23 (1998): 16-19*. Accessed January 11, 2017. <http://www.jstor.org/stable/41856094.er>, Stan Allen
- Alexander, Christopher. *Notes on the synthesis of form*. Cambridge, Mass.: Harvard Univ. Press, 2002.
- Garcia, Mark. *The diagrams of architecture*. Chichester: Wiley, 2010.
- Garcia, Mark: *Histories + Theories of the Diagram of Architecture (18-44 pg)*
 - Vidler, Anthony: *Diagrams of Diagrams | Architectural Abstractions + Modern Representation (54-64 pg)*
 - Eisenman, Peter : *Diagram | An Original Scene of Writing (92-103 pg)*

- Pai, Hyungmin: *Scientific Management and the Birth of the Functional Diagram* (64-79pg)
- Taylor, Mark: *Diagramming the Interior* (134-141pg)
- McGrath, Brian : *Inhabiting the Forest of Symbols: From diagramming the City to the City as the Diagram* (152-161 pg)
- Hall, Peter: *Diagrams and their Future in Urban Design* (162-169 pg)
- Shane, David : *Urban Diagrams and Urban Modelling* (80-87 pg)
- Spiller, Neil: *Spatial Notations and the Magical Operations of the Collage in the Post-Digital Age* (178-185 pg)
- Maas, Winy: *Metacity/Datatown* (244-249 pg)
- Schumacher, Patrick: *Parametric Diagrams* (260-269pg)
- Reiser + Umemoto: *Atlas of Novel Tectonics* (250-259 pg)
- Wouter Deen + Udo Garritzmann: *Diagramming the Contemporary* (228-235 pg)
- Will Alsop interviewed by Mark Garcia: *Expressive Abstractions* (214-222 pg)
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Public Interest Design Project: NC State's Flooded Tunnels

For my public interest design project, I will be addressing a local issue that affects NC State's campus. The challenge that needs to be addressed is that whenever it rains for an extended period of time, the three tunnels that connect NC State's main campus to north campus are prone to severe flooding. This prevents students from going to meetings and to class, or it forces them to get soaking wet walking through two feet of water. I identified this challenge through observation and experience. I had to walk through a flooded tunnel to get back to main campus after it had been raining all day; this made me very uncomfortable, as my shoes filled up with water, and I was late for a meeting. In addition, tunnel flooding poses risks to public safety; students could contract diseases from wading in the water or injure themselves by attempting to dive in and swim through (which has been done before). This issue could also leave NC State liable for student injuries, a situation which could cost more than the implementation of a simple solution.

The community that is affected by this issue is the population of NC State's campus. More specifically, 5,000 freshmen on average are all required to live on main campus each year. All of them will have to use the tunnels to get to their classes on North campus. Those who are most likely to be affected are the students and staff that walk through the tunnels on a daily basis. In a preliminary survey, it was found that 85 percent of students have experienced this issue first-hand.

The stakeholders are the students and anyone else who uses the tunnels, as they have the most to gain from a solution to the problem. I myself am a stakeholder because I am a student who is affected by this issue, but also because as the leader of the project, I would have a lot to gain or lose depending on the outcome. The university's administrators and maintenance team will have a say in the initiation and solution for the project, as this will alter the grounds of NC State's campus. Depending on the type of solution, the owners of the railway above the tunnels may have a say in the project as well.

The vision of success for this project would be that each tunnel on campus could handle any amount of rain without flooding so that students could continue about their day despite bad weather. To appease the administration, the solution would have to be a success with minimal cost or change to the university. In order for the project to be a true success, it would have to align with the community's interests. In order to do this, in the initial stages of the project, surveys would be conducted to verify the need for a solution to this problem, while also seeing which type of solution would be best for NCSU's campus. Since NCSU is a STEM school with a large college of engineering, I would hold a design competition where students could submit possible solutions. These would be evaluated by professionals, but students could vote on the top approved designs. True success would be a solution that works in the best interest of the campus community while contributing to the wellbeing, productivity, and safety of students and staff.

Success can be measured through observation. The next time the tunnels flood, actual measurements of water height can be taken. After a solution has been implemented, additional measurements can be taken or will be unnecessary to take if there is no flooding. In addition to solving a transportation issue, there will be changes in how the university must handle rainy days. The number of canceled classes and meetings should decrease, and therefore the overall productivity of faculty and students should rise due to the increase in time to learn and collaborate. The most important way to measure success, however, will be asking how the project has affected the community through additional post-project surveys.

In analyzing the situation and gathering initial data, I have developed a few potential solutions. An elevated walkway would allow water to continue running beneath the path while allowing students to stay dry in the tunnels. Since the average height of the three tunnels is 7.5 feet high, this would allow adequate space for raising the path. A drainage system might work, however that would require a lot of construction and landscape alteration. While my solutions have potential, I would like to give other students a chance to propose their designs through the competition.

Possible sources for grants:

- Foundation for the Carolinas:
 - Focus on environmental/educational/public safety projects
 - Geographic focus in North and South Carolina
 - Often work with academic groups/students and youth
 - Want to improve communities
 - they have funded 4,780 grants to 1,820 organizations totaling \$1,222,272,731
- Z. Smith Reynolds Foundation
 - Seek to encourage innovation and excellence
 - Focus on community and economic development/environment
 - Geographic focus in North Carolina
 - 982 grants to 431 organizations totaling \$84,792,491
- Duke Energy Foundation
 - Disasters and emergency management
 - Career, environment, and community impact
 - 34,400 grants to 4,796 organizations totaling \$96,740,645
- State Employees Credit Union Foundation
 - help identify and address community issues
 - promote local community development primarily through high impact projects in the areas of education, health, and human services
 - 49 grants to 32 organizations totaling \$21,697,719

Article 1: *Good Work in Difficult Times*

Summary

This text describes several points relating architecture to other fields. The first addresses how doing good work is made exceedingly difficult and is frequently purpose-driven. Secondly, architecture is related to the current states of alignment and misalignment in two fields; “genetics and journalism represent sharply contrasting--virtually polar opposite--cases in a study of professional realms” (Csikszentmihalyi 6). These fields are in vastly different positions, however both have drawbacks and benefits and thereby the author expresses a need to recognize that although architecture and the public’s interests may be in the midst of trials, there are many great things exuding from the current state of the field. The identification and stressing of the mission, standards, and identity of a field and its representatives is also prevalent. These three pieces of the puzzle help define what the subject in question is striving to accomplish and are notable in regards to the completing of “good works”.

Key Takeaways

- Working towards something, regardless of its purpose, will not come easily and without obstacles. These obstacles, when successfully overcome, are what make the work and the journey worthwhile for architects and humans of all kinds.
- The use of a democracy is not always apposite to the proper representation and deliverance of a subject. While politics and economics benefit from this viewpoint/system, other fields like architecture and design, along with medicine and others outlined in this article, most certainly do not.
- Being able to recognize powerful forces that drive society is an undeniably hard skill to master, but is one that every human should work towards for the benefit of better understanding themselves and their surroundings for the betterment of both.

Discussion Questions

- How did the authors’ description of “good works” being so generic and open-ended help make that point more relatable to all aspects of society?
- Does the addressing of politics and how democracy, like everything else in the world, has its benefits and drawbacks, help connect architecture to the real world in a more generalized form for you? If so, to what extent/how?
- How do the “mission, standards, and identity” concepts make architecture better? (Specifically referring to public interest architecture)

Article 2: *The State of Public Interest Design*

Summary

This article heavily stresses the need for architects and members of society to recognize that public interest architecture, and thereby representation for the “98% without architects” (Bell 11). It presents the idea that defining a mission and principles were integral in laying out a general understanding for this aspect of design, but the article also presses the public to accept and promote the need for more application of public interest design in the world and the creations made. The article focuses on providing an understanding of public interest architecture’s beginnings, and outlines how people need to maintain accountability and respect surrounding this aspect of design. The author places immense emphasis on the possibilities: “We can design for 100% of the public. This is when we realize our full potential” (Bell 17) and in doing so leave an inspiring and hopeful call to action for everyone in society.

Key Takeaways

- While the need for creative design is still present within society (especially among the rich and powerful), the need for public interest design is monumental, and becoming more and more prevalent daily with the problems the public is facing.
- The stage of defining a field, as described on page 15, is imperative to the success and recognition of that field’s vitality to the world. The creation of a mission, principles, and a value proposition publically proclaim the field’s importance and lay the groundwork for it to begin affecting those it targets directly and indirectly.
- The linking of the public’s culture(s) and the public interest design that is representing that public is crucial to the proper representation and the proper recognition of both that group of people and the works for which they are designed.

Discussion Questions

- Why is there a need for defining a profession and more generally a field’s importance? What harm could come without a definition for these?
- Why is professional trust so incredibly valuable to an entire field’s reputation?
- Is the mission for AIA, “Every person should be able to live in a socially, economically, and environmentally healthy community” close to being achieved/fully implemented in the United States? Why or why not? If not, is it close to being achieved or implemented fully?

Article 3: *Ethics and Professional Practice*

Summary

This chapter explains first how entwining ethics into architectural practice is to be carried out through four categories of ethics themselves. These include character-based ethics based on people's virtues, contract-based ethics based on one's legal and social obligation to carry out a certain task, duty-based ethics which focus on someone fulfilling the tasks they are working towards, and results-based ethics which are based on achieving the "greatest good for the greatest number" (Hayes 15). The second section describes having professional ethics, which hold clear moral alignments and thereby are not fully achievable by architecture in its current state. This promotes the readers (especially those in architectural practice) to hone in on problems within the field regarding ethics and aesthetics alike, thereby being able to then "better celebrate and promote the essence of their work: going beyond just the science of shelter to the art of inhabitation" (Hayes 26).

Key Takeaways

- Ethics are multi-faceted as the field of architecture itself is. The four categories of ethics all revolve around doing "good" for someone, whether it be the public, a client, a place, etc...
- Art and science in architecture are too very different aspects that architecture incorporates together, and in doing so connects many aspects of life itself. It is vital that these connections be respected and cherished so as to continue achieving the "good" in both architecture and life.
- Using a "fear-based approach" to tackle ethics within the field of architecture. Especially in public interest architecture, could be detrimental to the public's perception of the field and its intentions, thereby it is better to handle problems within the field effectively, but with a steadfast working towards progression of the field for the overall "good" of it and society alike.

Discussion Questions

- How has the change in meaning of "aesthetic" affected architecture and the worldview of design? Is the current state of the word more or less beneficial? Why/why not?
- Why does the author stress the importance of aesthetic attentiveness in architecture? Is this one of the most vital aspects by which architecture is aligned?
- The last sentence of this text states that "architects need only honestly and unabashedly embrace design and devote their efforts to aesthetic attentiveness to assume their natural authority" (Hayes 26). To what effect does this statement have on readers trained in architectural practice?

Article 4: *Essays on Ethics* (by Victoria Beach)

Summary

These three essays are about different aspects of one centralized question; "What can the profession do for architecture now?" (Beach 4). They encompass how architecture cannot be clearly defined as a profession without having a clearly defined moral ground/basis, but that the field may not need the extra baggage that comes along with being defined as a profession. The information presented in the final of the three columns effectively illustrates that, even from a historical standpoint, architects disagreed on whether the standardization of the field was the right way to go about creating more respect for and awareness of architecture as a public service. The author stresses that the creation of architecture in a professional representation is "good for business" but "as the Brits feared, bad for art" and thereby a money maker that has lost the individuality of the design itself.

Key Takeaways

- Architecture is considered by Beach to be "amoral" in that it is not clearly promoting one specific moral basis, but is not clearly representing immoral basises either. To encompass itself as a profession (especially in the public interest department) architecture must choose to align itself with a strict moral basis as medicine and law have also done.
- With the status of "profession" comes a lot of responsibility and baggage, especially in the case of architecture. It is imperative that those representing a field recognize the implications this generalization and "professionalization" has on their individuality within the field itself.
- The representation of ethics in architecture presents architects, especially with the public interest in mind, with a unique challenge to overcome. It borders art and politics, which can be very hairy and is thereby hard for architects to fully grasp in order to address within their works.

Discussion Questions

- Why are medicine and law so commonly used when referencing architecture? Do these authors (and others from past readings) only use the "good" from these fields, which are very old and very respected in (American) society?
- Does architecture today seem to successfully accomplish the "ethical duties" to the public that the author describes in the second article?
- Would this author now be content with the way that public interest architecture has began to change how and what is built for the people, by the architects? Would she still consider architecture to be amoral? Why or why not?

Article 5: Dilemmas of design: The means, ends, and aesthetic lens of Architecture

Summary

This article describes the ethical obligations that architects have to society to help streamline what is created with their best interest being taken into account. It describes how architects can view projects with two perspectives: “classic ethical roles, which moral philosophers call “deontological” (prioritizing “duty” or “deon” in Greek) or “consequentialist” (prioritizing “consequences” or results)” (Beach 1). These perspectives will determine what actions are taken in respect to the creation of a work and its integration of the surrounding area, demographic, and public interest. The author also describes how the aesthetics of architecture are integral in the accurate interpretation of “human character and customs” (Beach 1). Overall it is stressed that architects have a duty to put societal needs first by way of a balancing act best described as “ensuring that work for clients also promotes our human rights to a dignified, secure, fair, free, and sustainable society” (Beach 1).

Key Takeaways

- Architects must balance between keeping their paying clients happy and ensuring that the true public’s interest is being served accordingly. These two things are very different, and thereby I perceive these tasks to be very difficult for professionals in the field.
- Different perspectives, not just in viewing architecture but in all of life, are integral to human understanding and representation.
- Truly representing the public’s needs is commonly not very clearly defined and thereby a very intricate and extensive concept to represent, especially from an outsider’s perspective looking into a community.
- Discussion Questions
- How did the two views presented by Pei and Cobb differ? Why did Cobb receive such criticism from his colleagues when he was just trying to protect his home in the best way he knew how?
- Do you agree with the statement made by Beach saying that “Architects are actually the only professionals with the aesthetic qualifications to design our culture and lead our society, through inspiration rather than regulation, toward lives better lived” (Beach 1)? Why or why not? How did Beach come to this conclusion?
- When defining architecture as we have done in classes prior to this one, have your definitions changed in response to this article? Have your perceptions of the field and those whom represent it changed/transformed? Why/why not?

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