RESPITE PARK: CHANGING THERAPY WITH COMMUNITY AND ARCHITECTURE

A Design Thesis Submitted to the
Department of Architecture
North Dakota State University

By

Jared Hallman

In Partial Fulfillment of the Requirements for the
Degree of
Master of Architecture

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May 2022

Respite park

Changing Therapy With Community and Architecture

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Primary Thesis Advisor

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Abstract

ABSTRACT

Architecture can be a driving force of change within communities. Through a new kind of public park with therapeutic experience pavilions based on community interaction and integration, as well as innovative architectural design. This thesis explores the creation of spaces that allow for a further push for a general acceptance of cognitive behavior therapy in culture. Through researching what methods of cognitive behavioral therapy are wildly successful, combining that with research on innovative sensory architectural techniques and interactive art Installations to create perspective altering experiences. In which, for visitors, the physical and emotional distance required for self-reflection is created. The intent is to provide a place where cognitive behavioral therapy can be more easily approached while eliminating a common negative stigma behind seeking help when it is needed.

Narrative

NARRATIVE

Architecture is for the people, creating spaces where they live, work, and ultimately have any experience. As architects it is our responsibility to improve the livelihood of all that may experience our architecture. This can translate into things like sustainable design or pleasurable aesthetics. So why not try to create a completely new experience unknown to the world, that can be used to benefit the daily life of all people within a community?

Proper mental healthcare is gaining more and more awareness every day, leading to people seeking healthy ways to manage stress, anxiety, and life in general. With this knowledge one can see an opportunity for architecture to be used to create a new type of experience that aims to change the social/cultural perception of cognitive behavioral therapy. From where it is now as seen as something exclusively for people with severe mental disorders and instead into something that all people can benefit from. All while providing ease of access to many resources. Ultimately this project will prove how architecture can be used as a tool to provide approachable therapeutic experiences successfully changing how therapy is accessed and perceived, all while providing the community and its visitors an opportunity to heal and improve their lives.

This will be accomplished by making a new type of therapeutic center through clusters of pavilions that house interactive therapeutic zones where innovative, interactive sensory architecture and cognitive behavioral therapy solutions come together. Which help create experiences that provide opportunities to change mindsets, behaviors and perspectives allowing for a self-realization of potential unhealthy ways of thinking and behaving. It will also be home a community building, with a large black box theater for events and speakers, on CBT and mental health, as well as offices for potential guides and community leaders. These therapy pavilions with the community building will focus on bringing the community together with a large developed site that encourage community interaction with new therapeutic experiences. Where healing can be done together in a new way.

My hope with this project is to design unique experiences for one of the most common human issues, that of mental health. Bringing light to a new use for architecture, it being the tool to provide thought provoking experiences that change one's perception, allowing for the healing process to begin. Ultimately it is about creating experiences that all people can benefit from.

TYPOLOGY

Public Park and Therapy Experience Pavilions

The typology is derived from the need of making the project as approachable as possible to engage the community, to help rid the stigma behind seeking mental health help through cognitive behavioral therapy. As most people view therapy as a personal thing, often engaging with others can help solve a variety of mental health issues. Merging these two distinct typologies can create a space where all feel comfortable while allowing easy access to mental health information and aid for those who need it within the community.

It is a mix between a public park housing a community building, containing community functions like a theater, offices, and an info center. With a new therapeutic building and experience in the form of pavilions that provide a new look into therapeutic process by combing cognitive behavioral therapy ideas with sensory architecture to create healing experiences. Adding these therapeutic pavilions to a public park which all visitors can access provides thought provoking experiences that allow for self-reflection through interactive architectural "tools". Which act as a gateway into healthy behavioral thinking.

PRECEDENT RESEARCH

When selecting the following case studies for precedent research, five major factors were considered:

- Typology
  Healing Architecture

- Visitor Impact

- Community Impact

- New or Innovative Technology

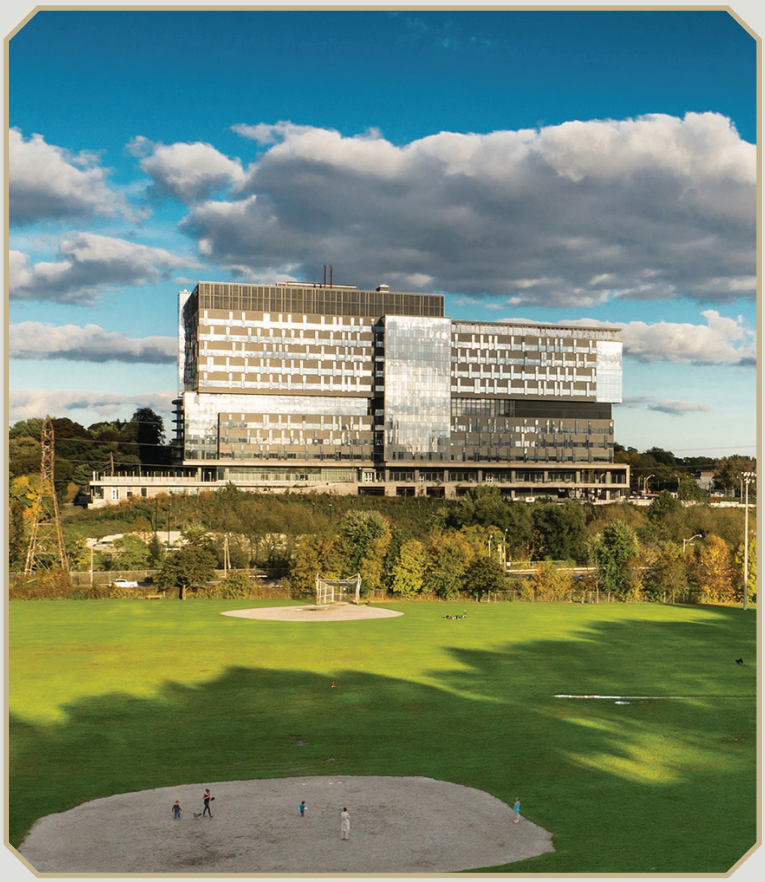
- Iconic Architecture

The following projects were given consideration for precedent research

- **Bridgepoint Active Healthcare** Toronto, Canada (pg. 22)

- **Nuuk Psychiatric Clinic** Nuuk, Greenland (pg. 29)

- **Pima County Behavioral Health Pavilion and Crisis Response Center** Tuscon, Arizona (pg. 36)



Bridgepoint Active Healthcare

See more pg..... 24

Figure 01

Nuuk Psychiatric Clinic

See more pg..... 31

Figure 02

Pima County Behavioral Health Pavilion and Crisis Response Center

See more pg..... 38

Figure 03

MAJOR PROJECT ELEMENTS

-Interactive Therapeutic Pavilions

Interactive therapeutic experiences driven by architecture that allows any community member, to go through a unique experience. In the hopes to provide a change in perspective that may aid in the healing process or rid the stigma behind therapy. Using light, materials, form, sound, nature, and technology

-Reception/lobby

-Community hub

Community offices and info center

-Site Development

Large park space to house Therapeutic zones

- Black-box Theater

USER/CLIENT DESCRIPTION

Community Members
– People from the surrounding the site. They are there for multiple reasons from the therapeutic zones to community spaces
– Considerations: circulation through site, seating, public bathrooms, area for gathering.

Specific members:
– Medical: patients and staff from the nearby Medical hub
– Education: students and faculty from MIT campus across the Charles River
– Civic: city officials that need a respite from the civic district
– Residential: Members of mixed residential units, ranging from single person to a larger families and people of all ages.

Theater Employees
– A range of employees that keep the small black box theater events running providing community draw to the site
–Considerations: dressing rooms, green room, backstage restrooms, prop storage, light tech room, stage with proper seating space.

Visitors (outside immediate area)
– People from outside the immediate area will primarily be there because of the therapeutic experiences as they are the unique feature of the project allowing for clear and quick access to those will be crucial
– Considerations: circulation through site, seating, public bathrooms, area for gathering.

Secondary staff
– This could be any secondary position from, experience guides, janitors, security, and community volunteers.
–Consideration: area to house job functions, site connections and access, parking, service connections.

Figure 04

SITE DESCRIPTION

The location of the therapy center should be somewhere with ease of access for larger communities. Leading the search into large urban areas. The goal for the building is to draw in many members of various communities to provide unique experiences that help change perception of therapy all while boosting community health. For the building to succeed the site must be able to house many functions all while boosting surrounding functions to boost the community. The idea behind this building typology is that I can be placed in the right spot in any community and be able to thrive, so when choosing a location, Boston, MA is the place I wanted to go as I never worked there before.

When picking the site location, the challenge arose, as picking the wrong place will make or break the project. The site located in downtown Boston on the Charles River. The current site is occupied currently by 2 baseball field and a park, primarily used for sports leagues. These functions can move just south to Boston common fields, as finding an vacant site in the Boston area with enough space for site development and facilities, proved to difficult. This becomes the best option. The site also has plenty of advantages that will benefit from the placement of the therapy center. Like proximity to other healthcare hubs, residential districts, train stations, waterfront, and some high stress workplaces.

The Site

The site is also adjacent to a healthcare hub with several different facilities, a residential zone and train station

The proposed site is located on a large park to the west of downtown Boston, provides great access and views of waterfront

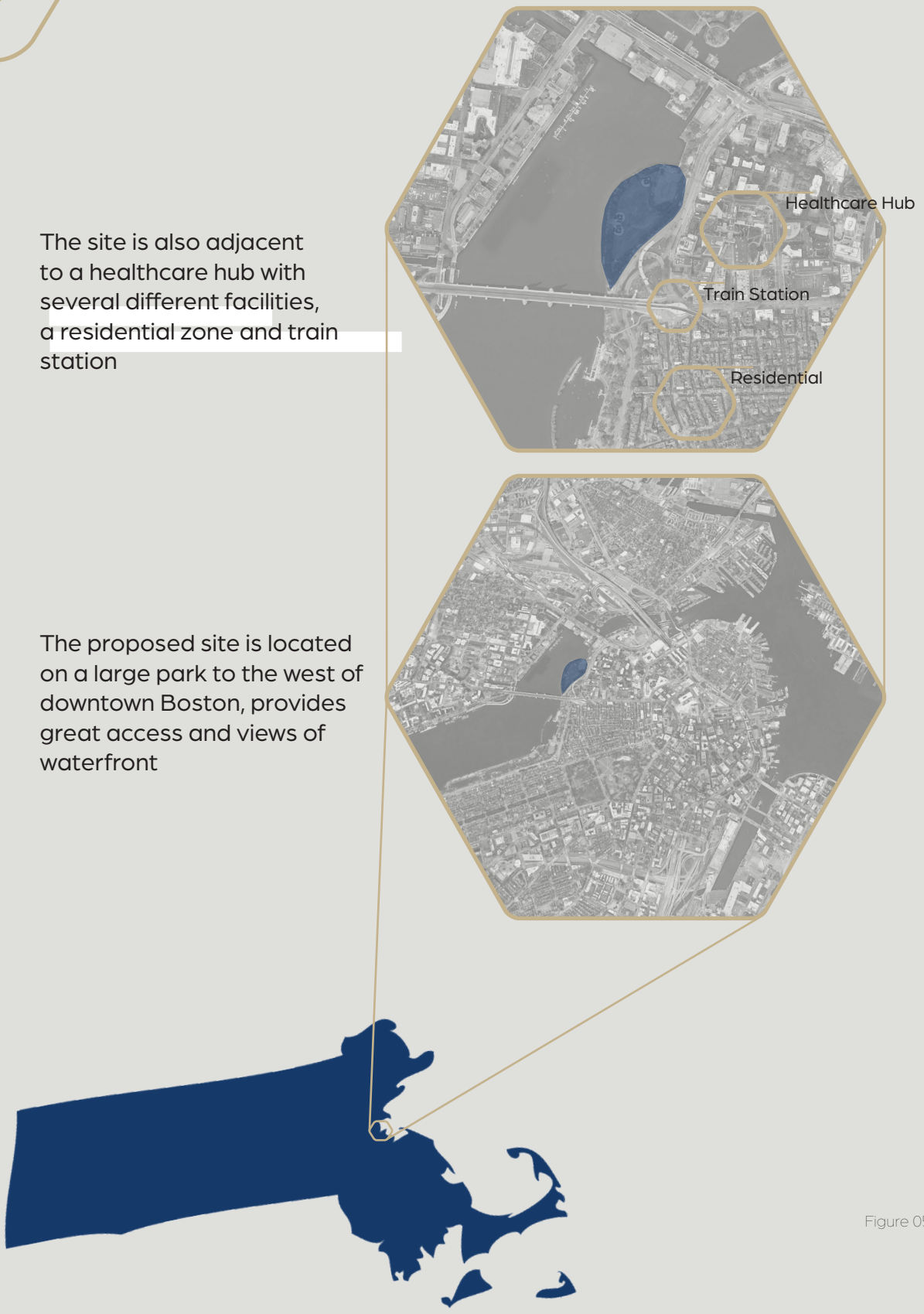


Figure 05

PROJECT EMPHASIS

Therapeutic opportunities for all

Provide a variety of approachable and unique therapeutic experiences so that each user can find the proper experience for them.

Community Focused Design

Creating a comfortable, approachable community hub used to bring community together and appreciate mental healing

Interactive Design

Having an element of intractability with the architecture to provide eye-opening perspective changing experiences.

Sustainable design

The project being in an urban context and focused on healthcare emphasis on sustainable ideas is needed to ensure longevity of the building and the site.

Goals

GOALS

Project

– [Social] Establish community center and landmark for therapy

– [Physical] Successfully Design and Develop a new typology

–[Theoretical] Answer the question if architecture can be a tool in Cognitive behavioral therapy.

Personal

– Further knowledge of multiple design software

– Work with Clear intent

– Maintain consist level of high–quality work

– Seek guidance and advice (from anyone and everybody)

– Creatively and effectively visualize work

– Stay healthy
Maintain sleep, eating, and work/life balance

–Think Big
Always think a lot about every facet of the project no matter the size

GOALS

Design

- Approachability
  - Create a Comfortable space to come for treatment, work, community events, and experiences. By providing a clear entry that provides a moment before choosing experience.
  - Welcomes all types of visitors, with access to plenty of public space
  - Encourages and inspires all visitors to engage with people and pavilions
- Healing Environment
  - Provide spaces that help both individuals and groups heal
  - Create a variety of sensory experiences to enhance healing experiences
  - Incorporate nature as much as possible to create separation for Urban environment
  - Provide unique healing experiences through architecture, nature, community
- Connection
  - Have a strong connection to the city and culture to increase potential community use.
  - Have distinct flow of the many individual functions of the project, in having both strong connection and separation
  - Create areas for visitors to connect with the site as well as socially
- Interaction
  - Has a plan that encourages interaction with both the architecture and community.
  - Provides an opportunity to interact with therapeutic zones to everyone, groups or individuals, all ages, and any type of visitor
- Innovation
  - Uses new technology to re-imagine the therapeutic process of Cognitive behavioral therapy.
  - Provides new innovative experiences through interactive therapeutic zones, connections to nature and community, and availability to all users.
- Sustainability
  - Maintains natural aspects of the site through incorporation of nature throughout and a pubic park
  - Uses common LEED and Passive principals, Daylighting, passive cooling and heating, and water collection. Hoping to achieve LEED platinum or gold without straying away from theoretical premise.

METHODOLOGY

The making of therapy more approachable through the integration of architecture. The architecture must present a brief therapeutic moment, that provokes a thought on one-self and alter perspective. The research required to acquire the knowledge to achieve this, can be broken into two parts. The therapeutic and the architecture.

First research will be done on cognitive behavioral therapy and what makes it successful. Isolating those ideas on a broad scale can used in the understanding in making a therapeutic space that can influence everyone. This can be done with archival research looking for both how treatment is achieved and maybe statistical looking for what most commonly works.

Next looking into the architectural side of the thesis statement, taking what is known about the therapeutics and applying it architectural research. The research would focus on spaces that match the data found in the therapeutic research, and successful community spaces for better approachability. During this stage also looking into new architectural technology, sensory design, and interactive art installations to help achieve a unique interactive experiences, really making architecture the tool in cognitive behavioral therapy.

With both sections researched in an archival sense, allows for the creation of research "test runs" for the interactive experience. These would start in a 2d sense graphically illustrating the ideas of how architecture becomes the tool. Then potentially move to a 3-dimensional space using physical or digital models. To provide a better understanding on how the experience with these interactions, will feel and be perceived. Essentially creating a guidebook to what could work and not work architecturally when it comes to the interactive spaces.

From here design of the project can begin using various design methods, and taking the knowledge gained on therapeutic, and architectural research to create a space that uses architecture as a tool, make healing through therapy more approachable.

DOCUMENTATION OF DESIGN PROCESS

Documentation Compilation
Create Document that houses progress of design process and representation

Medium for Design Process
Computer representations
Sketching
Modeling

Software for Process
Auto-desk AutoCAD
Auto-desk Revit
Rhinoceros 6.0

Software for Representation
Adobe Photoshop
Adobe Illustrator
Adobe InDesign

Design Preservation Methods
Documentation of Process/ Representation
Research Materials Documentation
Files backed up on google drive and hard drive
Update document weekly

Publication of Material
Relevant material will be recorded and credited in final thesis book
NDSU Institutional Repository

Document Organization
Create files for different sections
Stick to File naming system

Plan for Proceeding

SCHEDULE

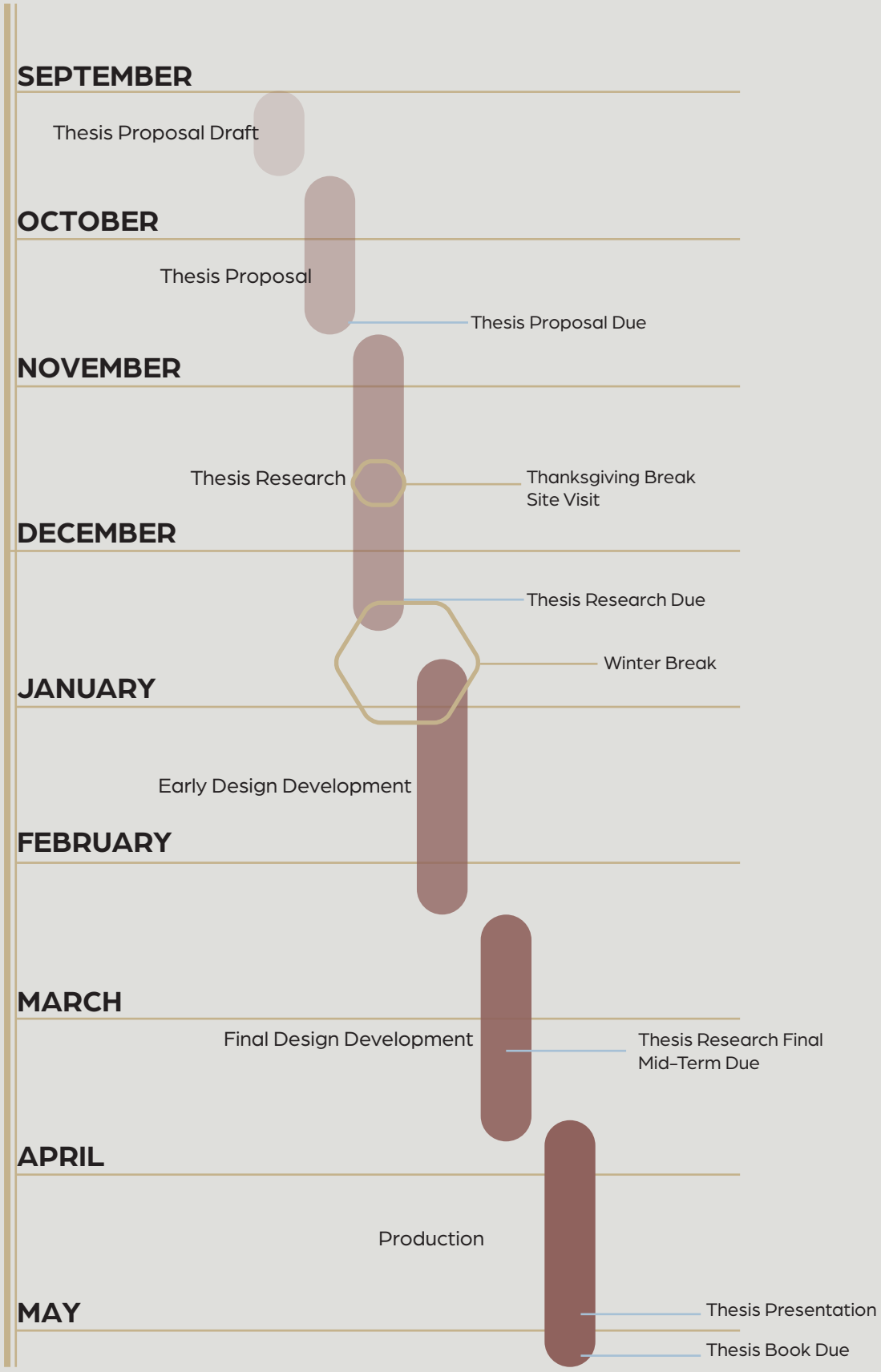


Figure 07

Case Study

Bridgepoint Active Healthcare

Project Type: Healthcare, Physical Therapy
Location: 14 St. Matthews Road Toronto, NT, Canada
Size: 680,000 Square ft.
Architects: HDR, KPMB Architects, Diamond Schmitt Architects, Stantec

Bridgepoint Active Healthcare is a large physical therapy center that focuses on complex care and rehabilitation of chronic disease. The main project typology is in a similar field but as the building is a physical therapy center some key aspects can be used to better understand the thesis typology. This case had a primary goal to blend healthcare and community, that being a driving point in my thesis as-well, this case will provide insight into how the merging of the two can be executed. Bridgepoint will also serve as case study of large in-patient facilities. Looking into its amenities, and general program organization for the in-patient facility of the proposed thesis.

Figure 08

Distinguishing Features:

The people at Bridgepoint wanted a new kind of hospital on the is both an urban center and a hospital for chronic disease rehabilitation. With the idea of a space that would assist and encourage recovery, through the blending of institutional space and public space. The architects took this idea and designed a space that understands the how landscape, and community play a role in recovery. The projects use of natural light, nature, and views, help in the creation of therapeutic benefits for the building and create a sense of connection to the world sometimes missing in the rehabilitation environment.

The vertically stacked campus of Bridgepoint creates small communities of organized rooms on patient floors brought together by shared therapy space. These patient floors being separated vertically by the shared patient/public floors to create community interaction. With the exterior being a pattern of vertical pop out windows one for each bed, split by a series of horizontal windows to help create an iconic look to the envelope. It is this architecture that helps define Bridgepoint Active Healthcare within its surroundings solidifying itself as an iconic landmark, to aid in the connection to the surrounding city and community. This brings socialization to the many community gathering spaces for patients, staff, and visitors.

Case Study

Bridgepoint Active Healthcare

Program Elements:

Main floor
- Ambulatory Care Entrance
- Retail
- Cafeteria
- Library
- Therapy pool
- Auditorium
- Courtyard
- Restrooms
- Admin Offices

Patient Floor
- Nurse Stations
- Patient Rooms
- Therapy Gyms
- Shared Dining and Activity Rooms
- Patient Lounges
- Continuing Care Core Program

Patient/Public floor
- Terrace
- Spiritual Care Room
- Meeting Room
- Internet Café
- Hair Salon
- In- house Pharmacy
- Care Core Program
- Shared Dining
- Patient Lounge
- Auditorium
- Green Roof
- Roof Terrace

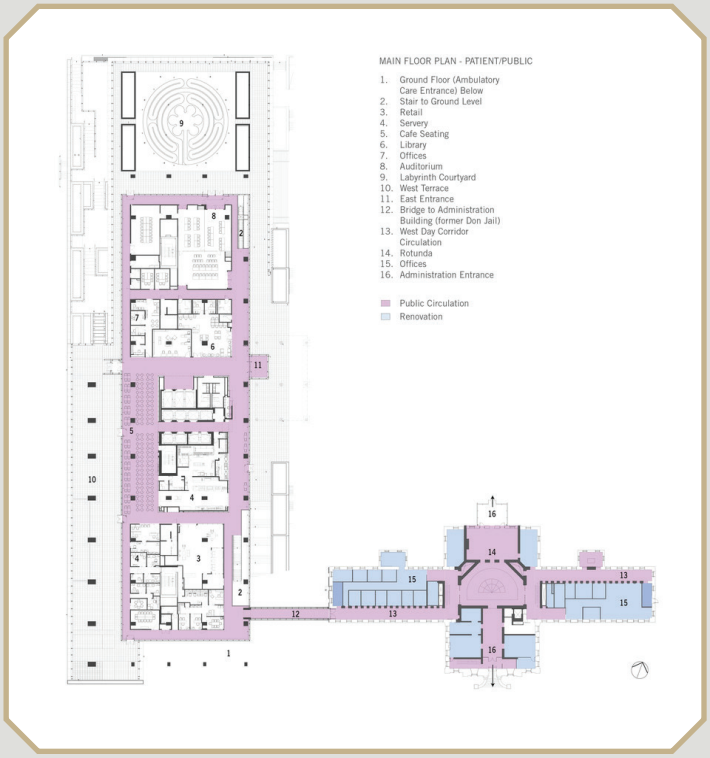
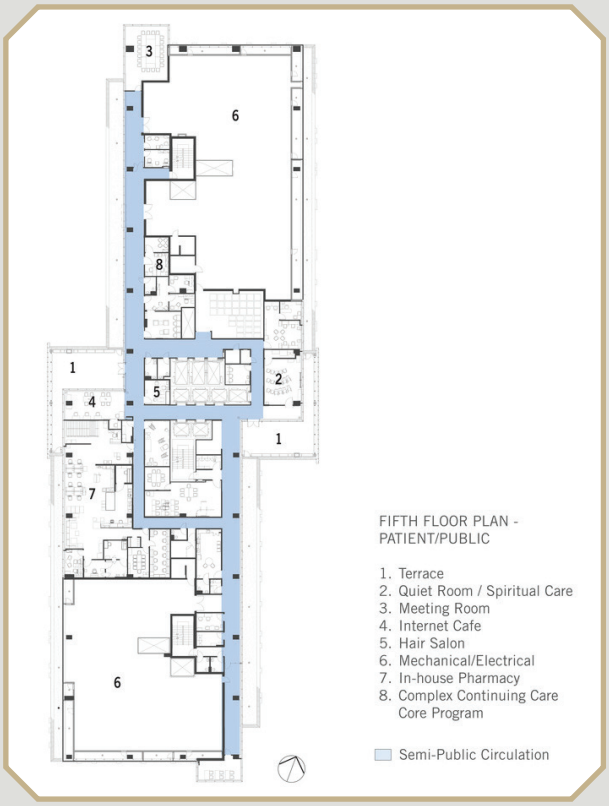


Figure 09

Case Study

Bridgepoint Active Healthcare



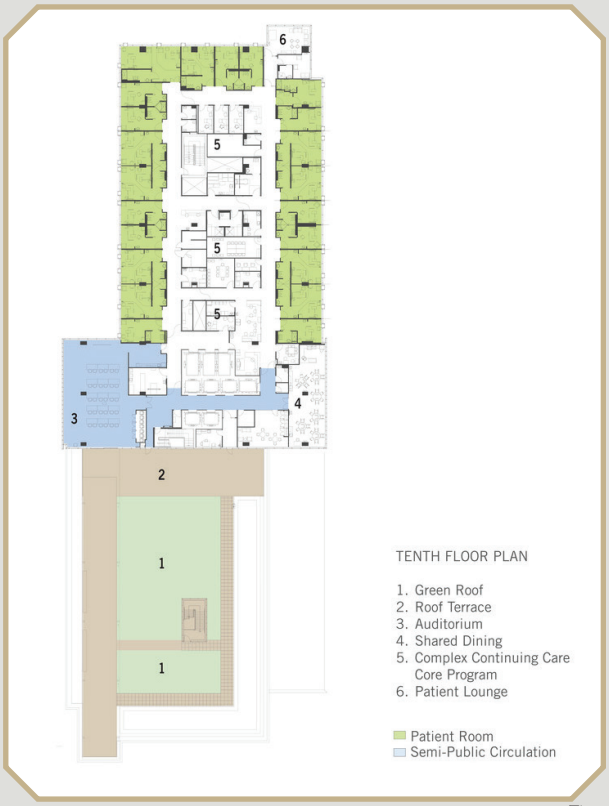
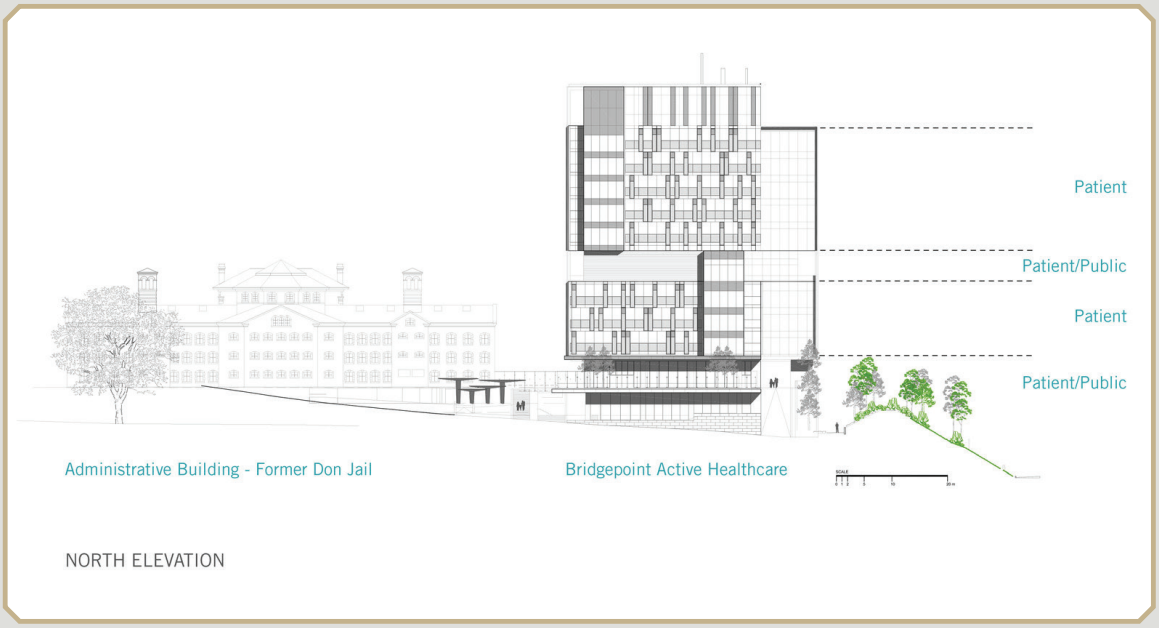


Figure 10



Through the plans and elevation, a clear central core circulation appears with in the program. The floors are organized in cube like masses of patient wings, divided in plan by community spaces and in elevation by public use floors.

Case Study

Bridgepoint Active Healthcare

Bridgepoint uses every opportunity to use large windows to light up its patient rooms, community spaces, and circulation with natural light. Creating a comfortable environment for healing.

Figure 11

Case Study

Bridgepoint Active Healthcare

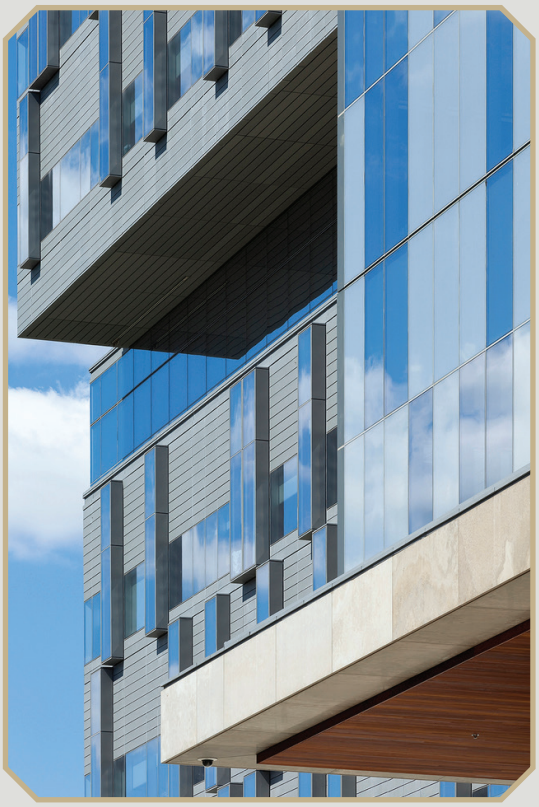


Figure 12

Vertical “pop-out” windows distinguish patient hubs from the more public spaces shown by larger curtain walls

The building mass, effected by the organization of floors, resembles shifting cubes that create a unique recognizable structure. On top of a large, cantilevered base that anchors it to the ground.

Case Study

Bridgepoint Active Healthcare

The buildings structure, is concrete flat slab floor plates. The floor plates cantilever near perimeter to get the additive/subtractive massing shape.

Figure 13

Case Study

Bridgepoint Active Healthcare

Research Findings

Bridgepoint Active Healthcare is a facility that like other case studies caters towards the use of natural light, nature, and views to help create an environment appropriate for healing. While it is unique in its size as it is the largest building in the case studies, it shows a cohesive flow between its functions on a large scale. Bridgepoint is also unique as the main premise behind the building was to create a space that bring community and healing together through public spaces that can be used by both visitors and patients.

Bridgepoint Active Healthcare responds to it site environmentally, socially, and culturally. Environmentally through its vertical campus to minimize footprint on the site, as well as leaving many opportunities to view the site and surrounding nature within the building preserving the feel of the park. Socially Bridgepoint creates a comfortable place to heal with in the natural elements of the site. Lastly culturally through its creation of a new landmark for Toronto, that people can feel comfortable approaching and engaging in the communal elements of the project.

Overall, the project successful creates a healthcare facility that engages community and create proper facilities and opportunities to heal.

Conclusion

With the similar typology of Bridgepoint Active Healthcare, many elements can be applied to the theoretical premise. The hubs of patient rooms serviced by a central core, creating little communities within the larger scope of the project, could be applied to the proposed inpatient facility of the thesis. Bridgepoint's integration of community spaces with the healing space could be applied to create better flow amongst the uses. Also, its use of windows to create ample natural light with a warm color palette of interior materials, to create proper atmosphere for healing. Lastly the creation of the additive/ subtractive masses creates an iconic structure that encourages community interactions.

Case Study

Nuuk Psychiatric Clinic

Project Type: Healthcare, Clinic
Location: Nuuk, Greenland
Size: 35,521 Square ft.
Architects: White Arkitekter

The Nuuk Psychiatric Clinic is small building near the existing national hospital of Greenland 'Dronning Ingrid's Hospital. The clinic is situated to facing the bay and has strong connections to the nature and landscape of Greenland. Its small scale fitting it into the area of Nuuk but complex spaces and activities, with bold architectural design making it stand out. As this ongoing project strives to link healing architecture with nature. This project matches in typology and provide unique perspectives on scale and nature integration that could be applied to the theoretical premise.

Distinguishing Features

White Arkitekter is designing the Nuuk Psychiatric Clinic to be at the perfect balance between a proper healing atmosphere, the natural landscape of Greenland, and the existing hospital context. The building most discernible feature off first glance is the perforated yellow facade exterior. To a non-Nuuk resident this would appear strange but as most hospitals in Nuuk are yellow in appearance this helps visitors discern the use of the building. This coupled with the architecture create an iconic piece recognizable from a distance.

Figure 14

The clinic uses the natural landscape, natural light, and natural materials to create an open calm atmosphere appropriate for healing. With this emphasis on openness to nature the building's form comes into existence, with the entire first floor being open to the landscape, through large glazing panels, while providing many outdoor experiences. As well as common areas and patient rooms being designed to connect to nature with large windows providing views and ample natural light. The primary material will also be a standout as the use of wood is abundant throughout the project for calming effects on visitors.

Case Study

Nuuk Psychiatric Clinic

Program Elements
- Atrium
- Courtyard
- Common Spaces
- Patient Rooms
- Flexible Outdoor Space
- An Non-programmed Garden
- Gathering Rooms
- Offices

Figure 15

Case Study

Nuuk Psychiatric Clinic

Figure 16

The common spaces and open flexible space blend with the landscape and circulation, to create a natural flow to the building.

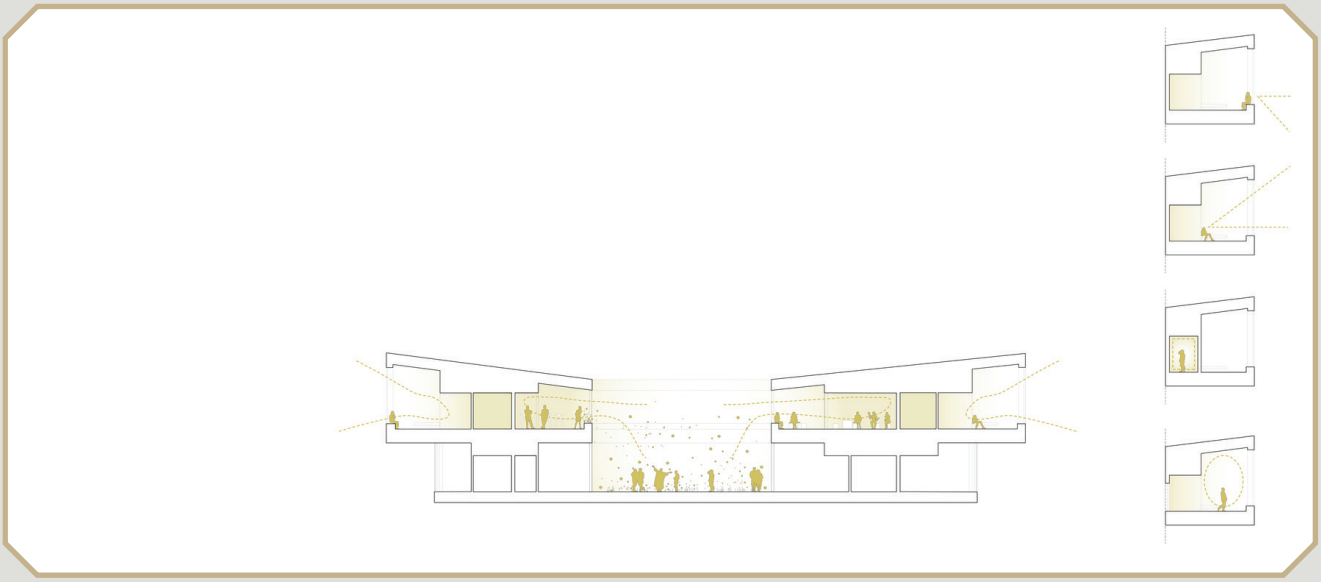
The design adopts a wood post and beam structure to emphasize the natural elements. This can also be achieved due to its smaller scale.

Case Study

Nuuk Psychiatric Clinic

The design of the floor plans being semi symmetrical around the atrium allows for a balance to be felt improving the feel of a calming healing environment.

Figure 17



The section also adopts a form symmetry allowing for views to the landscape and views into the courtyard around the entire structure.

Case Study

Nuuk Psychiatric Clinic

The perforated facade, large windows, atrium, and courtyard allow for natural light to enter almost every area of the building. Lighting up the warm wooden interior.

Figure 18

Case Study

Nuuk Psychiatric Clinic

With a nearly transparent base the yellow top mass appears to be floating above the landscape. Creating a recognizable and approachable figure.

Figure 19

Case Study

Nuuk Psychiatric Clinic

Research Findings

The Nuuk Psychiatric Clinic is like other case studies as it highlights yet again the incorporation of the natural environment into the healing process. With the large windows to allow for ample natural light. The clinic stands on its own as it takes this idea of nature and landscape integration to the next level with an open first floor, creating an unmatched flow between the natural landscape and designed space. Also, the size of the project makes it unique as the building is designed to fit in the context of Nuuk, showing a more modest approach to a similar healing facility.

Environmental the design showcases a unique consideration as it is primarily made from natural materials, this coupled with the blending of site and building through open spaces creates a design that appears to have thought about its impact on the environment. The building also conforms to the social and cultural aspects of the site through the previous mention of scale and fitting within the context of Nuuk. But also, the yellow facade detail that conforms to a Nuuk social norm.

Overall, the design of the Nuuk Psychiatric Clinic incorporates the ideas of nature and the healing environment, while creating a new yet familiar architectural statement in Nuuk.

Conclusion

The unique scale and integration of landscape of the Nuuk Psychiatric Clinic, can provide many perspectives that can be applied to the design of a new therapy center. The openness of the first floor creates a good flow to the landscape as-well as providing a welcoming feel to quest. This could be applied to increase community interaction and use of interactive space of the thesis design. The small-scale organization can be beneficial to look at as reducing the footprint on the site will be crucial in maintain the natural elements of the site. Lastly the material choice of wood could be applied to provide that natural calming effect appropriate for a healing space

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

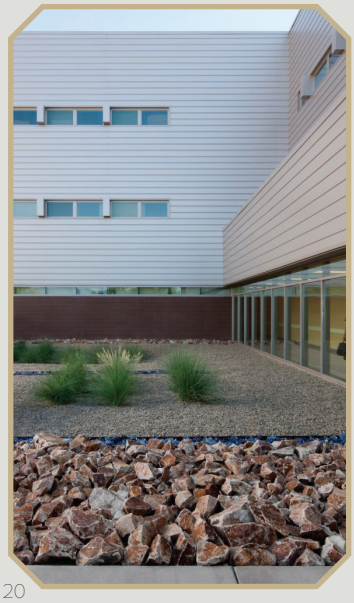


Figure 20

Project Type: Healthcare, Mental health center
Location: Tucson, Arizona
Size: 204,000 Square ft.
Architects: Cannon Design; CDG

The Behavioral Health Pavilion and Crisis Response Center in Pima county is a project that aims to create a "holistic healing campus" that benefits behavioral medicine in multiple ways. Cannon Design attempts this through combining architecture and the natural beauty of the desert, while balancing multiple different programs. This case provides an insight into the integration of multiple buildings into a singular thought out whole.

Distinguishing Features

The project creates a one of kind symbiotic relation between the health pavilion and crisis center, merges the feelings of safety and security with the healing environment. This relationship feeds into the buildings distinguishing features primarily the buildings heavy emphasis on proper circulation and organization of the program. With the effective separation of patient, staff visitor traffic flows. This is done with a strong central organization around a service court which connects the structures on the ground level. This creates a central flow that keeps the distinct uses apart with the feeling of connectivity.

The health pavilion includes a broad range of treatments, from a 96-bed psychiatric hospital to outpatient facilities. While the crisis center houses things from a courtroom to a call center. The wide range of uses is lost within the architecture as the two buildings seemingly become one using, indigenous landscaping, local building materials, and specialized glazing strategies. Creating the feel a holistic healing center Cannon Design was looking for. A prominent south facing facade with a perforated aluminum sunscreen, dramatic multilevel terrace, and sky gardens also helps tie the exterior together. While connecting the naturally lit interiors to the shaded outdoor gardens.

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

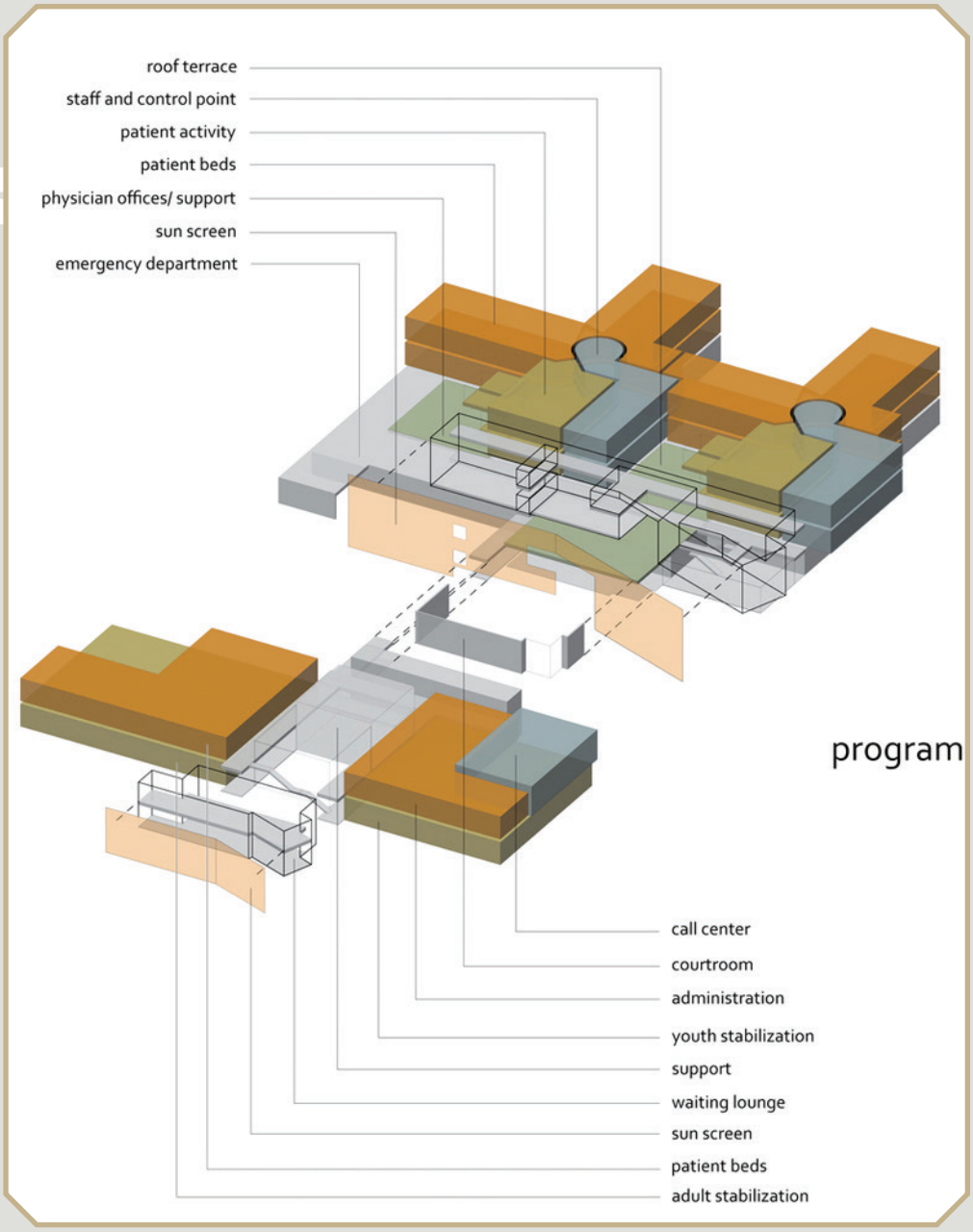


Figure 21

Program Elements

Behavioral Health Pavilion
- Roof Terrace
- Staff and Control Point
- Patient Activity Space
- Patients Beds
- Offices/Support
- Emergency Department

Crisis Response Center
- Cell Center
- Courtroom
- Administration
- Youth stabilization
- Support
- Waiting Lounge
- Patients Beds
- Adult Stabilization

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

The connection between the to buildings being its service court the two buildings flow together through a common place of circulation while upon entering respective buildings the uses divide circulation into separate paths.

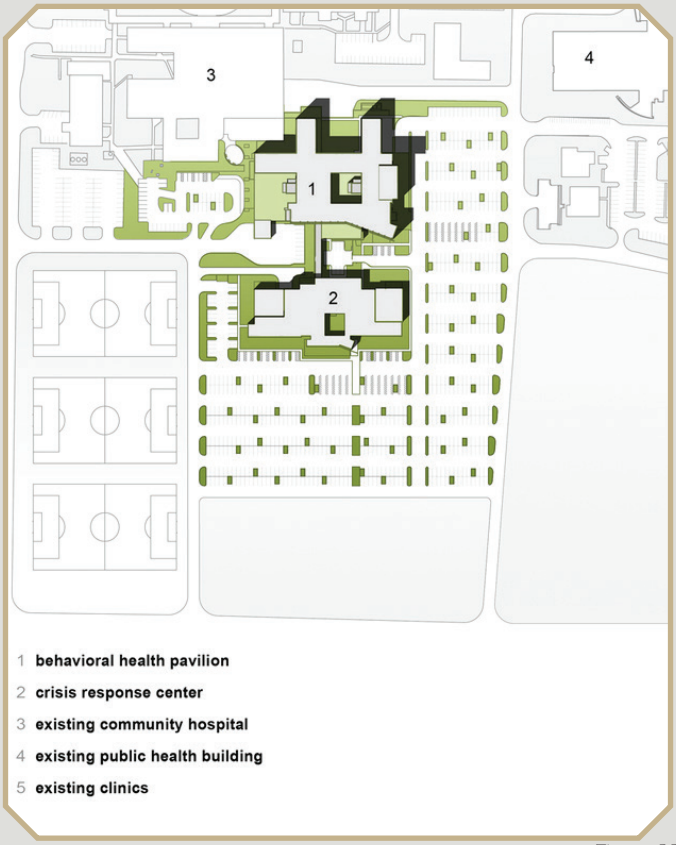
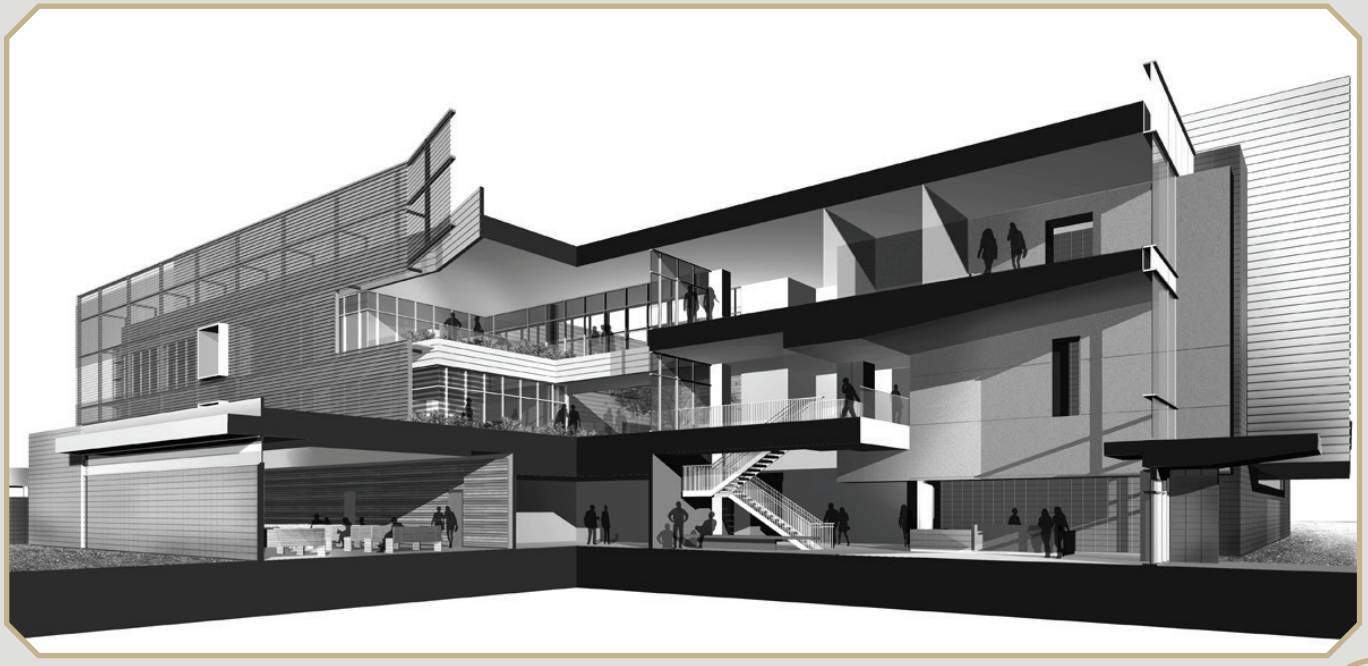


Figure 22



Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

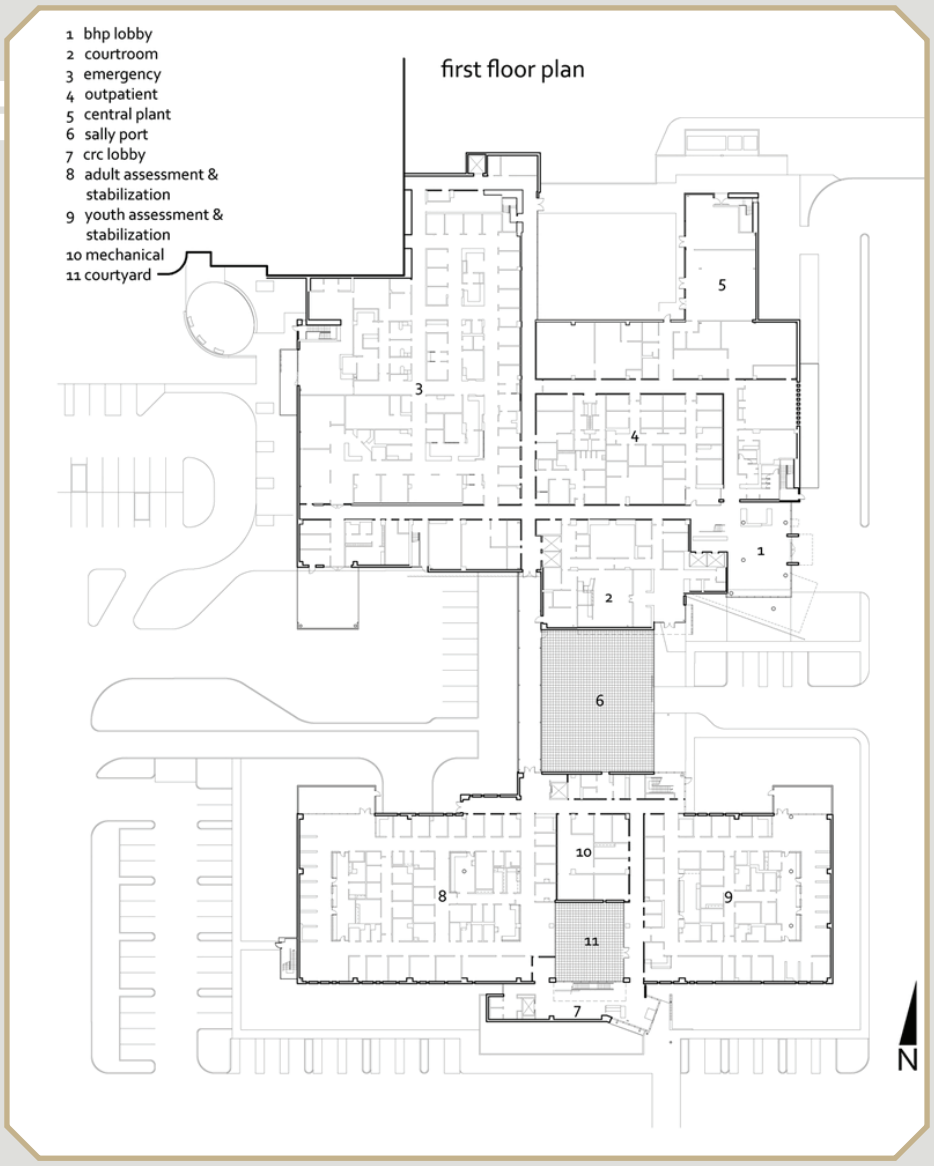


Figure 23

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

Figure 24

The earth-colored concrete, warm metal panels and brown sunscreens create a building that appears naturally in the Arizona landscape.

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

Both buildings take strong consideration with natural light, as to achieve ample natural light special glazing tactics and large sunscreens are used.

Figure 25

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

The two buildings are formed from the function of the space, as the uses dictate the rectangular masses highlighted with the use of materials. All while being dynamically split by the south facing sunscreen making a unique building form.

Figure 26

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

Figure 27

The entire project's strong central connection and use of earth-tone materials blended with the desert landscape creates individual buildings that feel as part of a whole.

Case Study

Pima County Behavioral Health Pavilion and Crisis Response Center

Research Findings

The Pima County Behavioral Health Pavilion and Crisis Response Center sets itself apart from other case studies through its creation of two separate buildings that can be seen as one. As well as its need to adapt to a harsh climate where natural light is more difficult to achieve due to climate concerns, and materially play a larger role in creating a comfortable building. It is similar to other case studies in typology and the incorporation of the natural landscape to create a healing environment.

The pavilion and center take special consideration to the environmental, cultural, and social elements of the site. Environmentally the buildings take special care to create a comfortable space that both engages the visitor with the natural environment while also protecting them from the harshness of the desert. Culturally and socially the buildings combine civic and healthcare functions to provide a sense of security in the healing process that is unique to this project. As well as creating architecture that speaks to ancient civilizations of the southwest.

Conclusion

The Pima County Health Pavilion and Crisis Response Center is a case that can be applied to the theoretical premise through its creation of individual buildings that seem as one whole. The pavilion and center use special consideration to glazing and materiality that create a palette of design that connects the buildings. As well as the organization of the program around a central circulation point creates a flow through the projects that is later dispersed into individual uses. In terms of theoretical premise design, a strong central circulation point could be used to create a social center for the site that could attract the community to interact with it.

Typological Research Summary

The preceding case studies all were chosen due to their unique attempts to create a healing environment and merging that with another element whether that be community space, Landscape, urban environment, or other building typologies. However, as many of the case studies attempt to create a healing space many commonalities arise within the individual designs. This creates distinct list of a few design criteria that set a precedent for what is commonly considered healing architecture.

The Bridgepoint Active Healthcare facility showcases the special requirements to a large inpatient facility. With an emphasis on it organization of patient wings that create small communities with in the facility as whole. Bridgepoint also creates a healing environment through its use of natural light and communal spaces that bring the aspects of socialization and nature into the healing process. The architects intentional created a small footprint opting for a vertical stacking of communities to better integrate local park and create an approachable structure. Lastly by creating a mass that clearly highlights public use and patient use in the building derives a form when coupled with the vertical pop out windows of the patient rooms, that cements itself in the city and surrounding landscape with iconic architecture.

The Nuuk Psychiatric Clinic blends the natural landscape of Nuuk Greenland with a healing space to create a unique flow of space that embrace connection and openness. Through its nearly entirely open first floor, and modicum of outdoor flex space creates a base to the structure that encourages interaction. This also allows for the structure to be flooded with natural elements like views and natural light, this combined with the clinics primary use of wood as a material creates a warm healing environment that is rarely seen in psychiatric hospitals. The symmetrical organization of space also creates a sense of serenity and calmness to match the materials and open structure. All while providing a discernible look that fits into Nuuk's social context with its small scale and perforated yellow facade.

Case Study

Typological Research Summary

The Pima County Behavioral Health Pavilion and Crisis Response Center aims to create a holistic healing environment through its use of interrelated programs, natural landscape considerations and use of local materials. The combination of a psychiatric hospital that promotes mental healing and crisis center that house everything from call centers to courtrooms provides a new sense of security in the healing environment. The building's location in the deserts of Arizona result in a design solution that both connects people to the landscape through natural gardens and ground floor connection to the outdoors, as well as protecting visitors from the harsh climate with its considerations in glazing location, sunscreen development, and use of comfortable local materials.

As mentioned before all the case studies were chosen due to a unique approach to the typology. Integrating the healing environment with other elements like other building typologies, urban environment, natural landscape, or public community spaces. A distinct pattern arose when looking at commonalities between the case studies. First the incorporation of the natural landscape to increase the healing properties of the design space. This varied in scale some projects just focus on the natural light let into to the building, while designs like the Nuuk Psychiatric Clinic pushed for a more integrated approach with an open first floor. Second the idea of a strong central circulation point is demonstrated in all cases, this is done to create an approachable healing environment that mixes its multiple uses to better create a holistic space. Lastly the use of architecture to create an iconic yet comfortable look to the buildings that establish it within the natural and built context, to increase the use and community interaction.

Early Research

To begin research a basic understanding of what cognitive behavioral therapy is was required. Information like what conditions is CBT used for, how does the process differ from person to person, what are the general ways CBT attempts to solve an issue, and what are the most successful ways it can help a patient. Early research pointed towards these questions and through answering them cognitive behavioral therapy became the base for which the thesis premise could be explored therapeutically

The American Psychological Association(2017) says cognitive behavioral therapy is a common type of psychotherapy or talk therapy. Where a patient engages with a therapist in a structured way by attending sessions, and performing various activities such as role playing, and homework. All to identify harmful thoughts that are creating a negative behavior. Cognitive behavioral therapy is used on a wide variety of mental health problems, ranging from stress, anxiety, and marital problems to major depression, eating disorders, and severe mental illness. Cognitive behavioral therapy works by isolating thoughts that create negative behavior, and changing the patients perception of the situation to change that thought and therefore the problematic behavior. (APA Div 12)

Cognitive behavioral therapy being both an effective and wide range approach to therapy, makes it the perfect baseline to apply architecture to as it both focuses on the patients experience and their perception of situation. With further research in cognitive behavioral therapy, and sensory and interactive design the theoretical premise may be realized.

LITERATURE REVIEW

Title: Using Group in Cognitive Group Therapy
Author: Robert Schachter

As the understanding of cognitive behavioral therapy is crucial in the understanding of the theoretical premise. Journals and articles that explained the core foundations of CBT, and the process in which patient and therapist actively go through in the pursuit healthy behavioral patterns. Using the Group in Cognitive Group Therapy is an article by Robert Schachter published by the Eastern Group Psychotherapy Society, which both sets a solid groundwork in what cognitive behavioral therapy as a general approach, as well as suggesting new ways to use a group setting in CBT to better capitalize on healing through socialization and community. Providing this knowledge key elements can be derived to apply to the theoretical premise of making architecture an active tool in the therapeutic experience.

Fundamentals of Cognitive Therapy

As previously mentioned Schachter sets up a discussion into the basics and fundamentals of cognitive behavioral therapy, which can be used in the development of the architectural experiences of the theoretical premise. To begin Schachter discusses the underlying premise to cognitive therapy stating that "feelings and emotional response are predicted on thoughts that are derived from cognitions, or the ways one perceives a situation" (Schachter 135). This underlying premise primarily dealing with perception of thoughts. It can be said that from these thoughts behavior is derived. With this observation one can conclude that if perceptions were controlled a particular behavior may arise. Schachter then points out the goal of cognitive therapy being to "Provide a way to identify the thoughts that underlie emotions and determine if they are accurate" (136). This suggest that emotions control our behavior and through the Identification of the thoughts that influence the emotion, then one can influence behavior. Underlining cognitive therapy as a process of identification of unwanted thoughts and the process of changing one perception

to alter that thought, in hopes of creating a more positive behavioral pattern. From here characterizing the cognitive therapy approach Schachter distinguishes four categories of approach when starting CBT treatment. (136).

1) Exploring the relationship among thoughts, situational triggers, and affect
2) Use of evidence gathering and thought distortions to become more objective about one's thoughts
3) Use of experiments to test hypothesis
4) Exploration of underlying beliefs and assumptions

These approach methods help identify the underlying thought or thoughts that have been causing a negative perception and unhealthy behavior. Once these ideas become identified the process of characterizing and altering them can begin, this being the primary core to healing and correcting unhealthy behavioral patterns.

With this base understanding of the goals and characteristics of the cognitive therapy process, Schachter then began to move into a further analysis of how to achieve the goals stated previously. As in the article he aims to address a new way to do group cognitive therapy sessions, for the purpose of this theoretical premise Schachter's analysis and explanation go a long way in understanding the process of CBT. Schachter explains one of the main tools to achieve the identification of negative cognitions. This being that of the Socratic dialogue, the argumentation of reality. In a sense this line of thought strips reality to the basis of what is known allowing the creation of a reality not influenced by bias beliefs. "The use of the Socratic dialogue, collaborative empiricism, and guided discovery provide functional mechanisms that allow patient to see situations differently and ultimately change the belief system that have tapped him/her." (136). Here the expression of seeing situations differently in sense of the therapeutic process creates a distance between the person and the negative cognition so it can be looked at in isolation and addressed properly. This idea can be applied and used later in designing interactive sensory experience prototypes. The idea of

altering perspective being the primary and applicable part of the cognitive therapy process, that could be turned around and used in the architecture of the theoretical premise.

Next Schachter wraps up the conversation of the process of cognitive therapy by explaining the idea of automatic thoughts, that can plaque a patient outside of the therapy sessions. The patient needs to be able to identify these automatic thoughts and use proper methods to change the dysfunctional ones. Here is where he explains another key component of cognitive behavioral therapy, the idea a homework for the patient to challenge the thoughts that create negative behavior, outside of the session environment. Schachter says homework provides a "element of practice outside the session [which is] important in reinforcement of patterns of thinking" (139). This process of homework outside of the session environment could be considered in the creation and organization of both the community spaces and interactive experiences of the theoretical premise.

Group Approach

Schachter expression of what make group therapy important can provide a perspective into what the architecture of the thesis premise could instill in its purpose. First Schachter points out the failures of the commonly used methods of group cognitive therapy. Which in simple terms applies the same principals as an individual meeting with the addition of other people receiving the same treatment. Schachter express that this fails to use the group as the agent of change and simply just adds people to the normal cognitive therapy experience. In retrospect this point to me falls a bit short as simply going through therapy with another person, provides a feeling of not being alone in the healing process. But Schachter recovers as he states his new approach which only enhances the current strategies used by putting group in the forefront of the therapy. This approach in summary is preparing groups by teaching the skills of cognitive therapy in the beginning sessions, to later transition to the group taking control. These sessions the group will use the taught skills to identify various thought pattens and replacing distorted thinking. This approach allows

for the emphasis of many curative factors of a group to be enhanced this brief list is a few examples (141).

- *Instillation of hope*
- *Universality*
- *Imparting information*
- *Altruism*
- *Development of socializing techniques*
- *Imitative behavior*
- *Interpersonal learning*

These curative elements of working in a group could be applied to the architectural elements of the theoretical premise, as designing a curative environment is crucial, and can take many elements from the group in group therapy approach. As "the group [is] a microcosm of reality" (141), so it stands to reason that this microcosm could be analyzed and turned into a reality through designed space.

In conclusion, the journal article, Using the Group in Cognitive Group Therapy, by Robert Schachter highlights the fundamentals of cognitive behavioral therapy to better explain a new approach to group cognitive therapy, that largely brings many curative factors to the therapeutic environment. In this understanding, conclusions can be made about the theoretical premise, like in what manner and what aspect cognitive behavioral therapy should be approached in designing interactive spaces of the premise. Largely from this article the idea of perspective altering to create distance between a patient and the negative cognitions that have a hold on their behavior. This idea is what I believe the architecture should focus on recreating to benefit visitors of any kind. Secondly the articles discussion of group therapy can be used to derive influences that can encourage group healing within the design space of the theoretical premise.

"Observation and analysis provide emotional distance that allows for realistic assessment."
(Schachter 136).

LITERATURE REVIEW

Title: Creating Sensory Spaces: The Architecture of the Invisible
Author: Barbara Erwine

Creating Sensory Space: The Architecture of the Invisible is book written by Barbara Erwine. She is an architectural design and research consultant at the University of Washington. Erwine has a background in science and architecture, with work ranging in commercial building, urban master plans, and sustainable co-housing communities. The book is about the design of sensory spaces, in which it aims to provide the proper knowledge and tools to create them. Looking at case studies, and specific categories including light, color, temperature, smell, sound, and touch. The book takes these categories and shines a multi-disciplinary approach on them through the lenses of architecture, engineering, phenomenology, and perceptual psychology. With the intent to inform design that can "reclaim the role of the body and all the senses in creating memorable experiences of place and belonging" (Erwine).

The first chapters of the book are good in setting up Erwine beliefs of the design world and the reasoning behind writing this book and pushing for multi-sensory design and experiences. The first chapter explains the premise behind needed sensory focus in design. As Erwine explains the how the design profession is 'flattening' the sensory world. Her main argument being that the profession has become to ocular centric "prioritizing visual impact over engagement of the other senses" (Erwine 10). Even through the experiences I have had as a student, this argument has some validity to it. Erwine evens says in the chapter when discussing the way architects are trained, that "their education does not give the same attention to the shape of sensory spaces." (10). With this preliminary argument the author explains the reason for the need to understand the sensory elements of design. Which sets the book up to continue into categories previously mentioned to further expand on the tools and knowledge needed to design sensory experiences.

Light Space

The first sensory element discuss is light as it is the most easily understood elements of a sensory experience. As the book explains it is primarily comprehended with ease as light is sensed using one's sight. Sight being a sense that most people are actively paying attention to creating an almost immediate understanding of what a person is experiences. Erwine discusses in the chapter the many facets to light like natural light based on place, place created by volumetric light, the absence of light, color, pattern, and reflection. Creating an understanding of how to apply light to the theoretical premise.

"The quality and shape of light in a place sets its character. The flow of light spaces, as they change either gradually or abruptly, can draw us forward, make our hearts leap or speak of mystery and danger" (43).

Somatic Space

The sense of touch almost being in complete opposite to the sense of sight being called the lowest sense it is easy to overlook but a question raised early in the chapter resonates nicely with the theoretical premise. Erwine references a David Linden who ask an intriguing question "Why are emotions called feelings, and not sightings, or smelling?" Linden with this question and further research suggest a connection between human touch and our emotional response to surroundings. Special consideration of this chapter will be used when designing, as Erwine dives into the many elements of design felt by the human sense of touch and sense of place in the world.

"We don't register a simple feeling of 'touch'. Instead, we experience an intricate combination of stimuli" (88).

Thermal Space

Erwine describes in this chapter a thermal sense with space. "There is a basic difference... between our thermal sense and all of our other senses. When our thermal sensor tells us an object is cold, that object is already making us colder. If on the other hand, I look at a red object it won't make me grow redder, nor will touching a bumpy object make me bumpy." (114). This unique characteristic showcases the thermal sense's ability to create a physical reaction allowing for thermal space to be design with more deliberate and interactive way.

"A person can experience simple thermal pleasure even if only a small part of their body is warmed or cooled." (134)

Acoustic Space

The acoustics discussed in this chapter have less to do with the commonly expressed physical acoustics of architecture, like in sound optimization, projection, and reduction. Instead, Erwine wanted to highlight the "more subtle 'aural architecture' of enveloping sound that provides information about the shape and materiality of our environment." (142). This chapter addresses many aspects of sound, like concepts of sound/silence/time, reflection of sound, Horizon and Arena, sound context, and acoustic design and tools. Erwine unique approach to thinking about sound and its place in designing space make this chapter valuable for the thesis premise.

"Sound may be invisible or only unconsciously perceived, but that doesn't make it any less of an architectural material than wood"
(Michael Kimmelman 142).

Olfactory Space

Lastly the chapter on the sense of smell, often looked at as most useless among other senses, Erwine argues in this chapter for use and importance in designing space. She says, "odors are an essential part of our connection with the atmosphere or ambiance of a place as well as being... closely associated with memory and the deep well of our emotions." (179). Through out the chapter Erwine express the this thought of smell being a crucial part of knowing ourselves and surroundings, pointing out people who have lost the sense of smell getting "immense feelings of depression and disconnection from the world around them." (184). Takeaways from the chapter being the smells helps develop time and space, and certain odor should be considered as an opportunity over a problem, within architectural design.

"Once an odor is associated with an emotion, future exposure to that odor frequently evokes that same emotion." (185).

Overall, Creating Sensory Spaces: The Architecture of the Invisible, by Barbara Erwine is a well written comprehensive guide to the knowledge and tools needed to create a sensory space. Erwine organizes the book in manner that first expresses her view of current design and why multi-sensory design is necessary to create a complete sense of space. Then she creates segments that detail specific points of knowledge and necessary information on all major sensory experiences, to formulate a reference able book when designing space to better create sensory designs of the future. This book provides many examples on how to specifically design for a desired sensory experience. Leading to a better understanding of how to execute a successful project that uses these sensory experiences to answer the theoretical premise, of making architecture a tool in the therapeutic process.

LITERATURE REVIEW SUMMARY

The preceding literature reviews of Using the Group in Cognitive Group Therapy, by Robert Schachter and Creating Sensory Spaces: The Architecture of the Invisible by Barbara Erwine both provide insight into to fields of understanding that were necessary to complete the theoretical premise. Using the Group in Cognitive Group Therapy was used to gain a fundamental understanding of the cognitive behavioral therapy process and identifying potential routes of integration with interactive architecture. Through key concepts and treatments in hopes to create an architectural tool for therapeutic use. Creating Sensory Spaces: The Architecture of the invisible was used in a similar way, to increase knowledge of interactive sensory architecture in a broad sense in hoping to find unique ways to combine with the research down on CBT to complete theoretical premise

Using the Group in Cognitive Group Therapy was broken down into two sections. The fundamentals of cognitive behavioral therapy explained and analyzed by the author and the implementation of a new approach to cognitive group therapy proposed by the author using the established fundamentals. For this theoretical premise the articles explanations of the fundamentals if CBT were used to identify potential aspects that could be solved with the substitute of architecture. The key concept that I believe has the most potential with the combination of architecture, is the idea of breaking down a patient's perspective or reality and providing a new more realistic perspective not previously consider. This idea is usually achieved through questioning but what is architecture that combines interactive and sensory elements could be used to re-adjust a patient's current reality and provide a new perspective to ultimately change the underlying negative behavior.

The book Creating Sensory Spaces: The Architecture of the Invisible, is a comprehensive guide into the many facets of multi-sensory design. Through the review of this book several design elements and understandings have been identified in each major sensory experience. Including the design of light space, somatic space, thermal space, acoustic space, and olfactory space. With several sensory experiences standing out, like that of thermal and somatic experiences due to the aspect of they provide a physical feeling. As well as olfactory experience due to their ties to memory and emotion. Taking these guidelines and continuing to reference these elements throughout the design will help create a solution to the theoretical premise.

From the observation made from both the literature reviews a further research direction can be identified. Setting up the identified best approach to CBT as the goal for the interactive sensory elements of the theoretical premise. A statement for proceeding can be made, Using the breaking down of a patient's reality to provide an altered perspective on their thoughts, as a goal for the design of prototype architectural experiences, that focus of interactive multi-sensory design to achieve said goal.

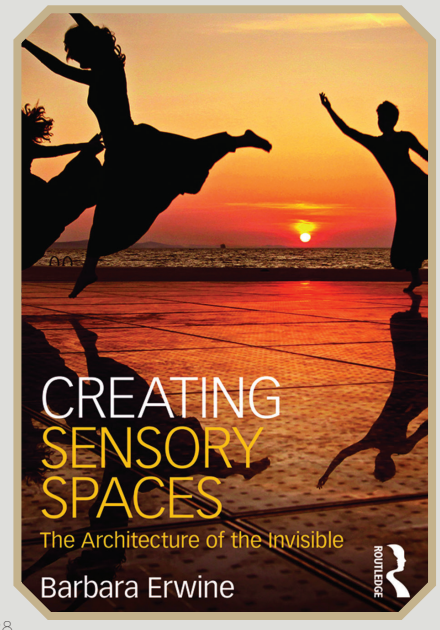


Figure 28

Additional Research

Installation Artist

To follow the research on cognitive behavioral therapy and sensory design, a look at experiential installation art through the artist, Tomas Saraceno and Yayoi Kusama. Both of their works provide a unique spacial experience that has certain psychological impacts on their visitors. This visitor impact is what makes these artist particularly important to look at as their work can create powerful experiences that invoke a moment of thought upon the viewer.

Tomas Saraceno

Yayoi Kusama

Figure 29

Tomas Saraceno

"Tomás Saraceno is an Argentina-born, Berlin-based artist whose projects dialogue with forms of life and life-forming, rethinking dominant threads of knowledge in the Capitalocene era and recognizing how diverse modes of being engage a multiplicity of vibrations on the Web of Life."(Studio Tomas Saraceno)

Through his work he explore ways of sensing our surroundings and co existing with them as Saraceno focus on the Aerocene. It is the idea of creating an environment free of borders. So as visitor experiencing his interactive installations and floating sculptures, Saraceno encourages the viewer/user to think about how we are connected and new ways of living and interacting with everything around us.

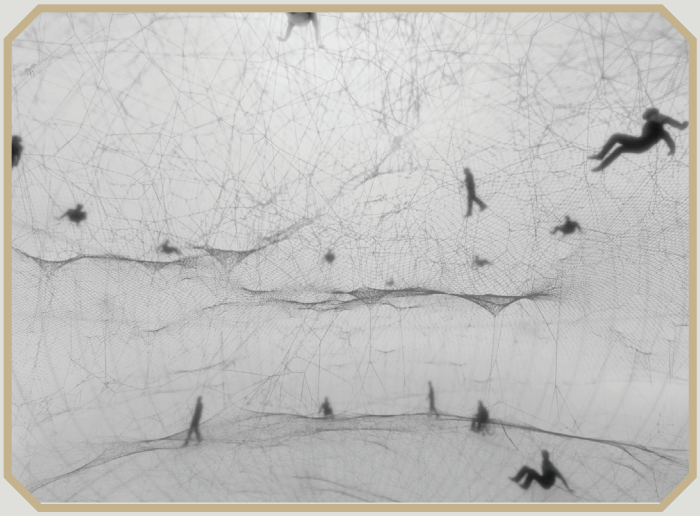


Figure 30

Additional Research

Yayoi Kusama

Kusama is a Japanese artist that moved to America in 1958 with a variety of works in her portfolio, but for research for this theoretical premise focusing on her early and late career where she used repetition, circles and polka dots to help her with mental issues. For Kusama her art is both medicine for herself and for the people experiencing it. Most of her art work that pertain to this premise are her many infinity room installations that use mirrors to replicate the designed room into infinity, creating an experience that makes the viewer contemplate many different thought as they stare into it.

“I fight pain, anxiety, and fear every day, and the only method I have found that relieves my illness is to keep creating art” (Kusama)

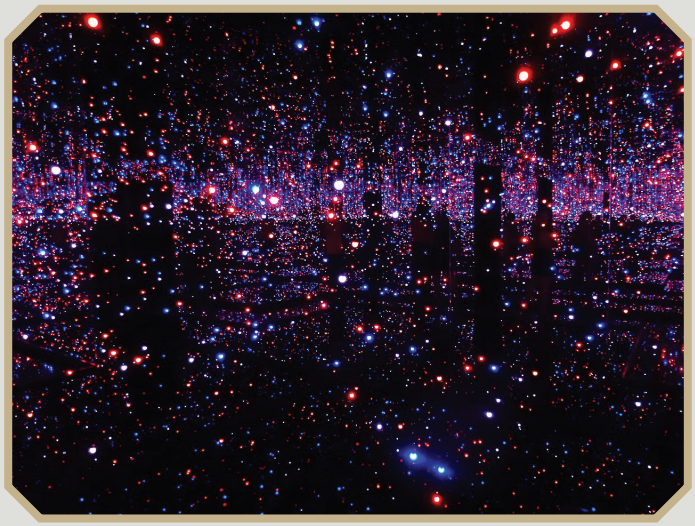
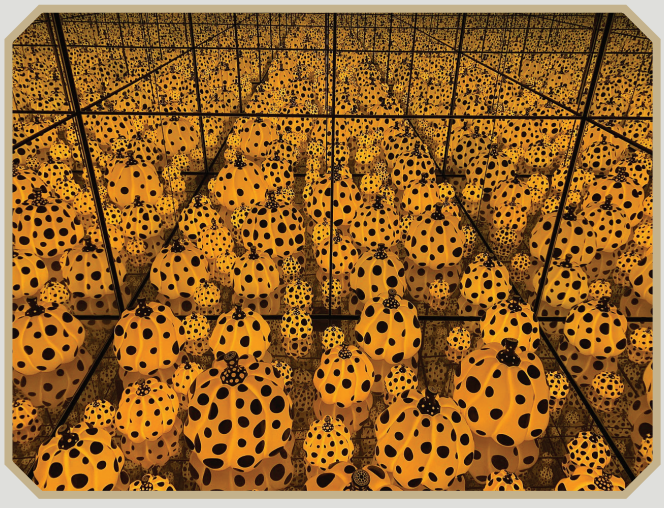


Figure 31



Justification

PROJECT JUSTIFICATION

The project at its base was founded on the simple idea that its impact on the world and the community it is placed in would be the driving justification. As developing my beginning ideas further my thesis project justifications stemmed into several branches such as Personal, Academic, Social, and Architectural Justifications. This in turn allowing the project to become more of a solution to find than a problem to solve.

This project was an idea that came from a personal place one of feeling a little lost and finding a way through. This process allowed me to create a thesis that I wished to pursue. That being one of finding a way for architecture to be a tool in helping a community find a way to positive mental health and behavior. From deriving a thesis statement from a personal place provided a certain attachment that will provide a motivation to make a project that is worth-while. This justification also stems into the academic side as pursuing something I am more connected to will provide a better environment of growth.

For the academic justification the project, simply put is one of my creation. He the foundation of the academic growth lie. As developing, all elements of the project can provide academic insights into, creative and thorough thinking, planning and scheduling, research development, and design implementation and impact. Overall developing a project form the ground up and providing a sound presentation of knowledge and appropriate design based on research. Through the process and results the project becomes justified academically. While also adding to the knowledge pool of therapeutic architecture by experimenting with potential design implication of architecture as a main 'tool' in therapy.

Justification

PROJECT JUSTIFICATION

The social justification comes from the success and impact the project has. The idea of providing a community with an approach to therapy through architecture, is a humanistic goal that through this innovative therapy center the community would be stimulated into positive behavioral patterns and better mental health. Leaving a sort of intangible return as the project would only provide the opportunity for positive change. The return would be that of the social and cultural context of the community as the center would boost positive progressive change amongst the community.

Lastly the architectural justification, here the projects inclusion of innovative, interactive, architectural experiences cement its role as a tool into therapeutic treatment and positive self-reflection environment . Which pushes the design of the project into new ideas about architecture. And through these experiences architecture becomes a form of therapy, allow the project to push the profession into interesting, new and positive areas of thought. This push to enhance architectural experience is a form of justification for the project.

HISTORICAL, SOCIAL, AND CULTURAL CONTEXT

Historical context

Similar projects using the combination of a therapy center and community hub, to create a healing environment that feels embedded in the community, to encourage socialization and improve general health of the surrounding area, all have been attempted before. For instance, one of the case studies done in the typological research, Bridgepoint Active Healthcare (2013) combined a physical therapy center with several public uses like, a public park, retail space, and public courtyard. All to boost community interaction with the patients of the facility. This idea is not new as the benefits of social interaction in therapeutic environment are well known. But new and not seen before is the attempt to make architecture an active tool in cognitive behavioral therapy process through open interactive sensory experiences. Where these experiences will be the start of healthy behavioral thinking as they provide the emotional and physical distance from ones reality through hyper-focused sensory experience that allows for self reflection and realization.

Social Context and Trends

On a broad scale the social context of the thesis revolves around the general population as one of the project goals is to ease the approach to seeking therapeutic help, through the exposure to experiences the proposed project would create. In general people still see a negative stigma from seeking mental health help, even though trends of recognizing the benefits of therapy are only increasing in today's day and age. The project is attempting to increase the awareness of positive mental health behaviors throughout an entire community, through its placement in urban environment the project can reach as many demographics of people as possible. The site being in close proximity to residential, offices, a large healthcare hub, train station, and couple of college campuses the buildings social impact will be at it greatest to instill change with in the community.

HISTORICAL, SOCIAL, AND CULTURAL CONTEXT

Historical Narrative

Cognitive behavioral therapy is the combination of many thought process seen throughout history. This provides cognitive behavioral therapy a substantial base of roots as its ideas stem from a strong foundation of centuries of thought. Beginning in its philosophical state as Stoicism in the 3rd century B.C. This was not a perfect one to one as we see it today. The base philosophical ideas were precursor thought processes that influenced many modern behavioral and cognitive theories. Take the ideas of stoic philosopher Epictetus, who believed "logic could be used could be used to identify and discard false beliefs that lead to destructive emotions" (John Mathews 2015). This line of thought would eventually in many centuries evolve into the three waves of cognitive behavioral therapy.

The first wave of cognitive behavioral therapy began with the behavioral therapy practices being develop in the early 20th century. In 1920 with work in behaviorism starting with the studies in conditioning or learned behavior done by most predominantly John B. Watson and Rosalie Rayner. These ideas of learning behavior eventually began to translate into a therapy with the first "behaviorally – centered therapeutic approaches [appearing] as early of 1924 with Mary Cover Jones' work dedicated to the unlearning of fears in children." (Wikipedia 2021). Which ultimately led to the development of behavioral therapy by Joseph Wolpe in the 1950's, using animal experiments to construct his systematic desensitization which is an early iteration of todays fear reduction techniques. During the 1950 and 60 many different new idea in behaviorism sprouted creating the first wave of modern cognitive behavioral therapy. As some of the research being done in this time period would start to involve cognition, ripples of the second wave begin to appear

HISTORICAL, SOCIAL, AND CULTURAL CONTEXT

The second wave of cognitive behavioral therapy started with two theories which had an emphasis on cognitive factors. The first and earliest cognitive-based psychotherapy was called, rational emotive therapy, known today as rational emotive behavioral therapy (REBT). Develop by Albert Ellis, who took inspiration and influence from Alfred Alder, as some of his psychotherapy began to address cognition "Notably, his idea of basic mistakes and how they contributed to the creation of unhealthy or useless behavioral and life goals" (Mosak HH, Maniacci M 2008). The second therapy to form the second wave, simply called cognitive therapy developed by Aaron T. Beck, where he details the idea behind the unconscious thoughts that he dubbed automatic thoughts. This work would solidify him as the father of cognitive behavioral therapy, which is develop from the merging of behavioral and cognitive therapies to form the third wave of modern cognitive therapy.

The third wave occurred in the 1980s and 1990s, with the blending of cognitive and behavioral therapies. "Pivotal to this merging was the successful treatments from panic disorders by David M. Clark in the UK and David H. Barlow in the US." (Mosak HH, Maniacci M 2008). This merge between the two therapies spiked popularity of the treatment approaches, labeling cognitive behavioral therapy not only as a therapy but also as a term to ally to all psychotherapies that address behavior and cognition. This is where cognitive behavioral therapy sits today as an effective broad from of therapy for a multitude of behavioral and mental conditions. With the introduction of the theoretical premise combining physical interaction with architecture to aid in its healing process, a fourth wave of cognitive behavioral therapy might spark.

SITE ANALYSIS

Figure 32

Boston, Massachusetts

CITY INFORMATION

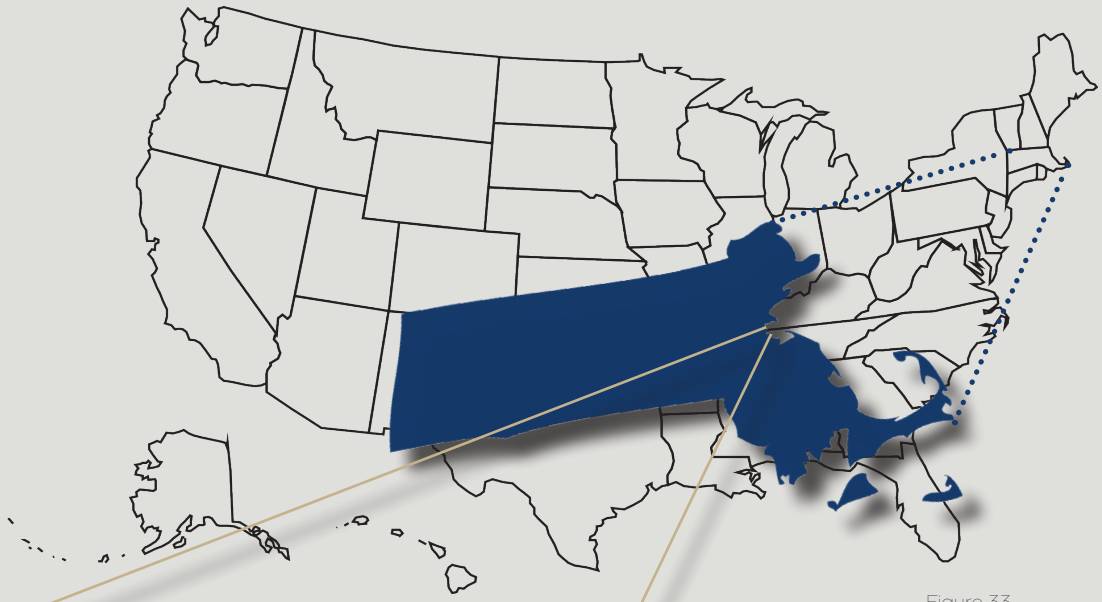


Figure 33

Boston, Massachusetts Demographics
Land Area: 48.28 square miles
Elevation: 49 ft

Male: 48%
Female: 52%

Population: 675,644

Living

Average household income: $71,115

Average per Capita Income: $44,690

Average House Value: $532,700

Residents

Average Resident Age: 32.6 years

Population Density per Square Mile: 12, 793

SITE INFORMATION

Figure 34

- Max FAR: 4 to 1
- Minimum Building Setback: 15 feet
- Maximum building setback: 15 feet
- Maximum Building Coverage: 100% of the area
- Landscaped Buffer Zone: 10 feet
- Rear yard maximum percent occup. by accessory buildings: 40

ZONING

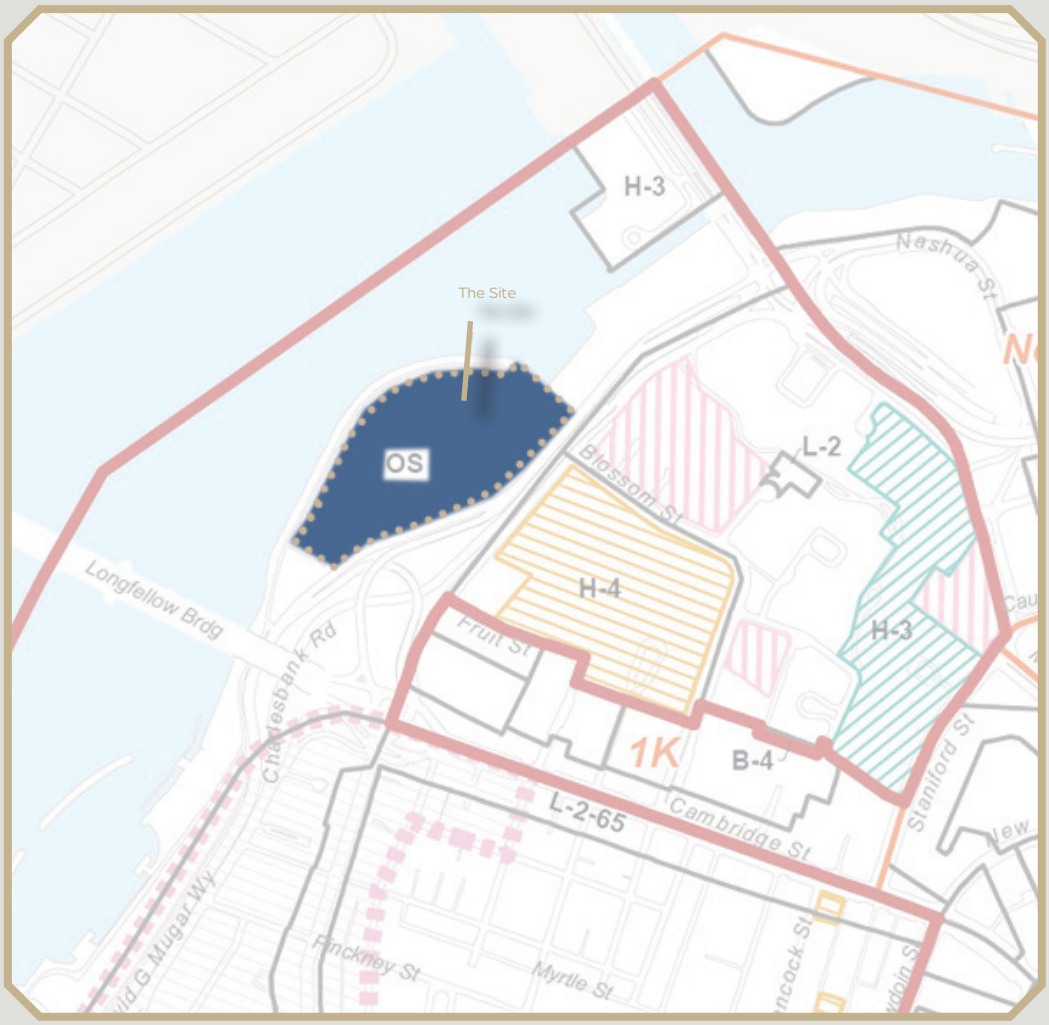


Figure 35

The site is currently zoned as OS or open space, this being a extremely limiting zoning condition. I would propose a zoning appeal to the Boston zoning committee to partially rezone the site into H–4, institutional master plan, the zoning distinction given to the Hospital across the street. This would allow for the project to fully benefit the community as the theoretical premise intended.

CLIMATE INFORMATION

Boston has a harsher climate than most places in the United States. It has warm summers but beside that the rest of the year is filled with cold winters and cloudy days. Temperatures throughout the year are in the range of 23 degrees Fahrenheit and 82 degrees Fahrenheit. Boston having a on average colder temperature creating outdoor space and thermal sensory experience propose an interesting design challenge.

Average Temperature:
51.4 degrees F

Annual low Temperature:
44 degrees F

Annual High Temperature:
59 degrees F

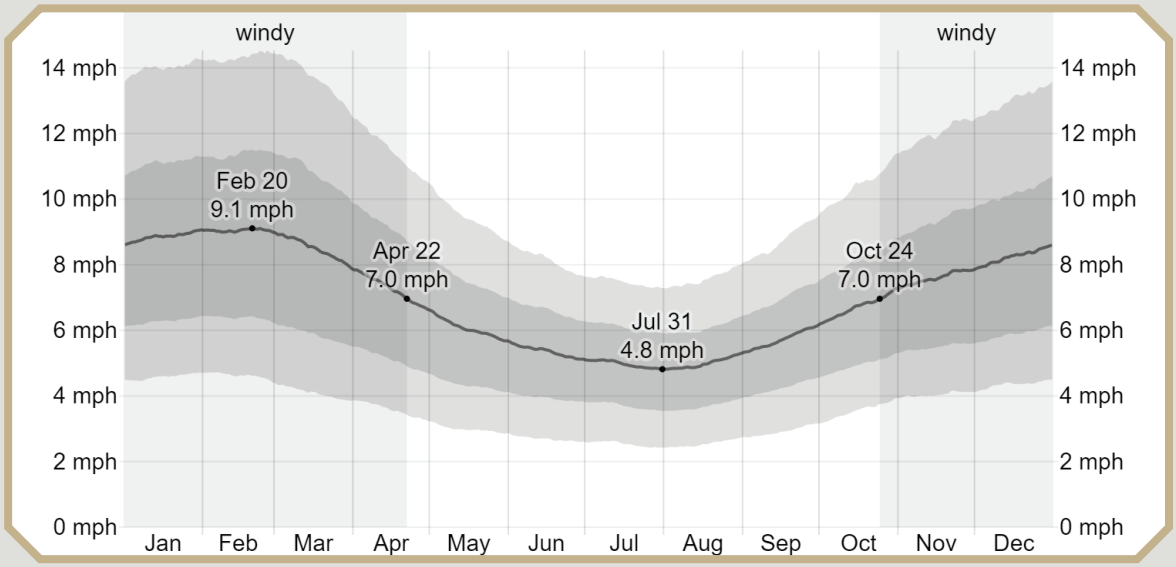
Average annual days of sunshine:
108 Days

Average annual precipitation:
43.56 inches

Average annual days of Precipitation:
120 Days

CLIMATE INFORMATION

Yearly wind speed



Yearly wind direction

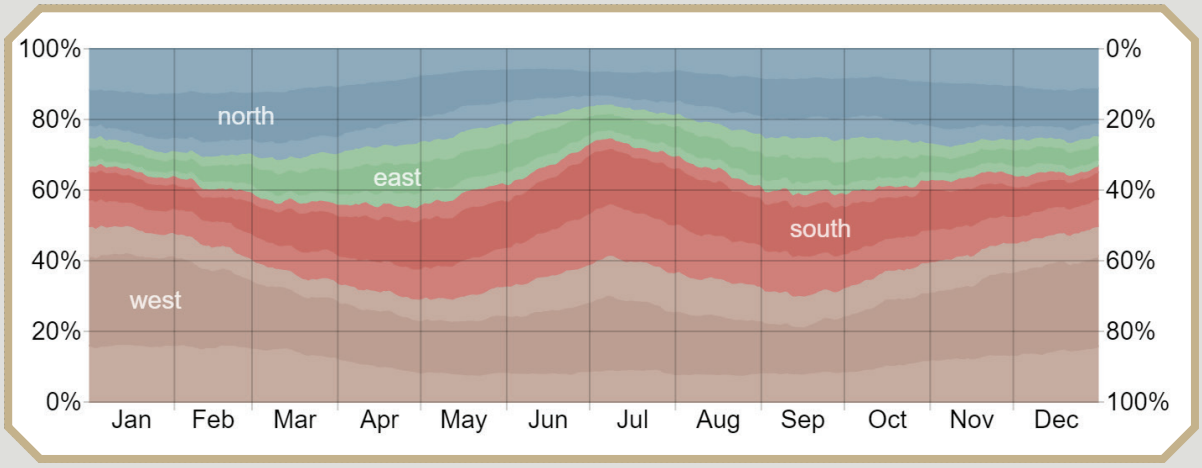


Figure 36

THE RIVER

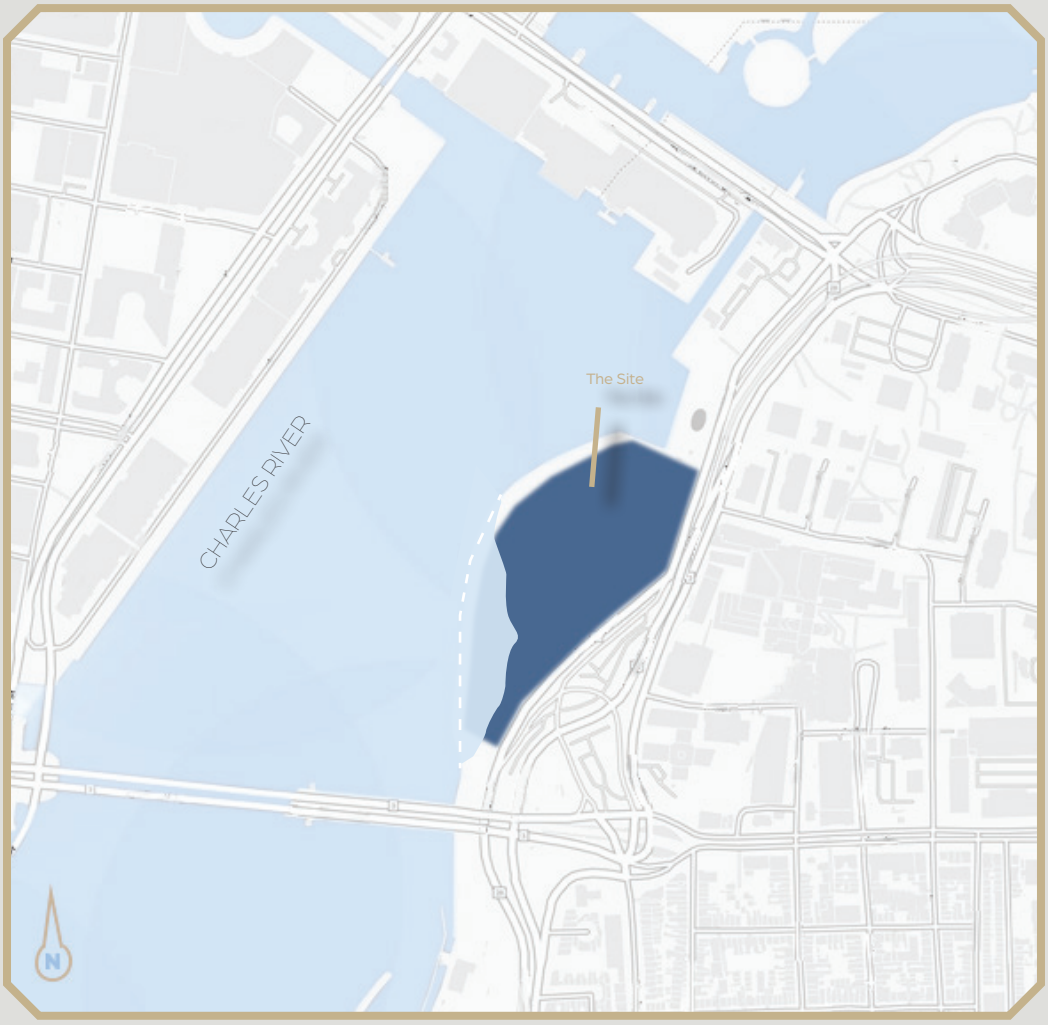


Figure 37

The Charles River flows throughout Massachusetts and comes to an end near the sight as it empties into the Boston Main Channel. The site being relatively low in elevation comes in close contact with the river. Creating potential flooding issues to the south of the site, in a climate like Boston where days of high precipitation are common. Giving the site a unique opportunity and challenge when it comes to designing.

TREE COVERAGE

Figure 38

The area of downtown Boston had a surprisingly large amount of tree coverage that created a grounded sense to the area. As the site is more so on the western outskirts of the downtown area more tree coverage becomes available as well as the proximity to a healthcare hub that wants to create a healthy environment to the area. Species of trees that are on the exterior of the site, include Little-leaf Lindens near the water and larger Norway Maples near the highway to the east.

CIRCULATION

Figure 39

The site gains many benefits to the existing circulation, but also one major setback that will need to be addressed. The benefits include proximity to major rail systems, the subway to the south and the Amtrak rail to the north. Increasing potential ease of access for visitors. The pedestrian and bike path that connects the site to the southern river walk and the mixed-use residential to the north-east provide another great connection to Boston proper and its communities. The major negative comes from highway immediately adjacent to the eastern border of the site, creating blockage between the site and the healthcare hub. Addressing this and reconnecting the two sites would be extremely beneficial to the project as a whole.

CONTEXT

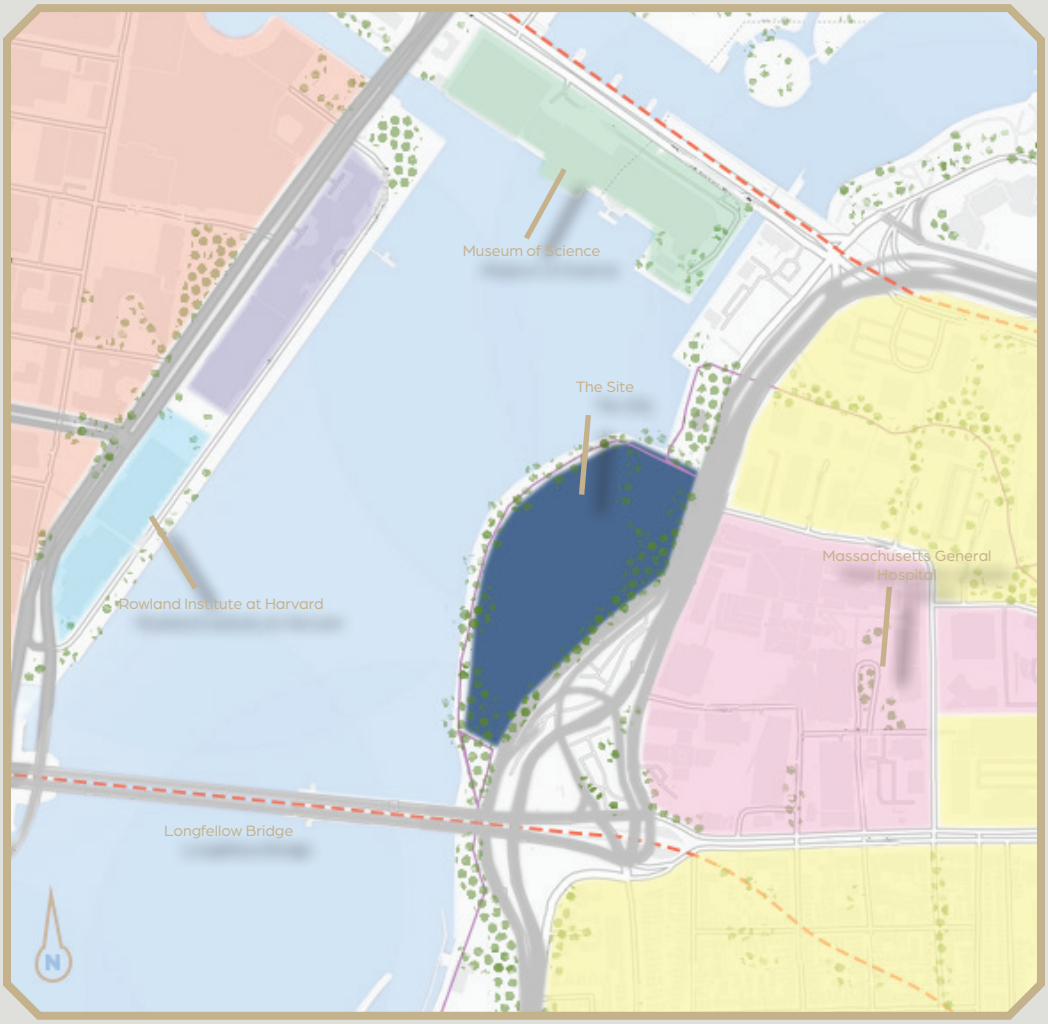


Figure 40

The site is packed into an urban context where it can benefit the most communities with the proposed therapy center. While still be located on the Charles River the site reach can draw in people from the nearby, residential mixed-use buildings, or the large medical district to the east of the site. The site's location between two crossing of Charles River could also pull people and communities from Cambridge across the river.

VIEWS

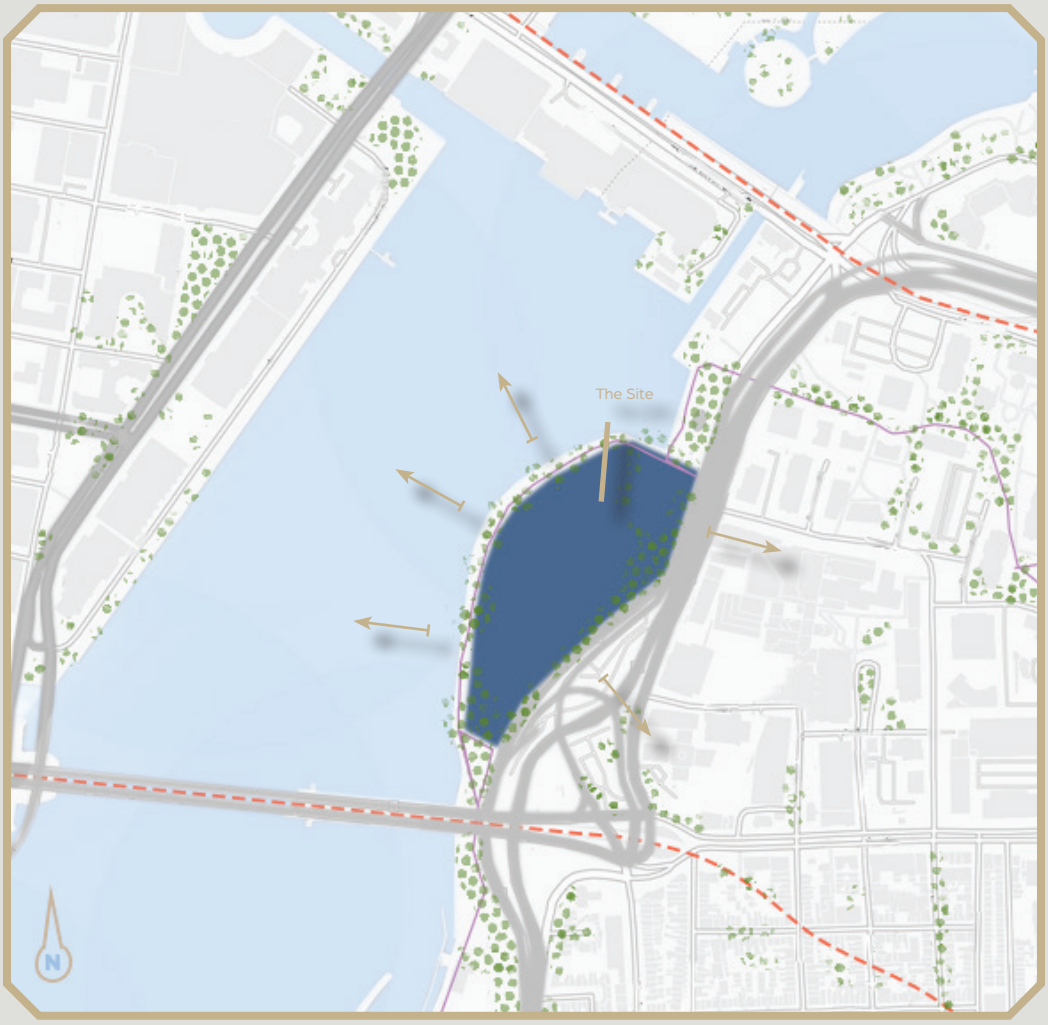


Figure 41

The site being consisting mostly of a large park, many easy and open lines of sight are available. Ranging from looking out over the water at Cambridge, or either bridge flanking the site. With a highway to the east of the site having a less desirable view on the ground, however if elevation could be achieved better views of downtown Boston could be provided.

SITE CHARACTER

The sites current character is one that fits the theoretical premise all too well. It feels like a separate part of the urban landscape while still providing many opportunities of connection Boston proper. Making the site have a perfect balance of isolation and inclusion that can ultimately resonate with a therapy center. The site in its own context feels like an expansive area that encourages movement through its openness and key feature like the river. All while providing a natural escape from an urban environment that should not be lost when designing.

Reconnaissance Grid

Figure 42

SITE CHARACTER

Figure 43

SITE CHARACTER

Figure 44

SITE CHARACTER

Figure 45

SITE CHARACTER

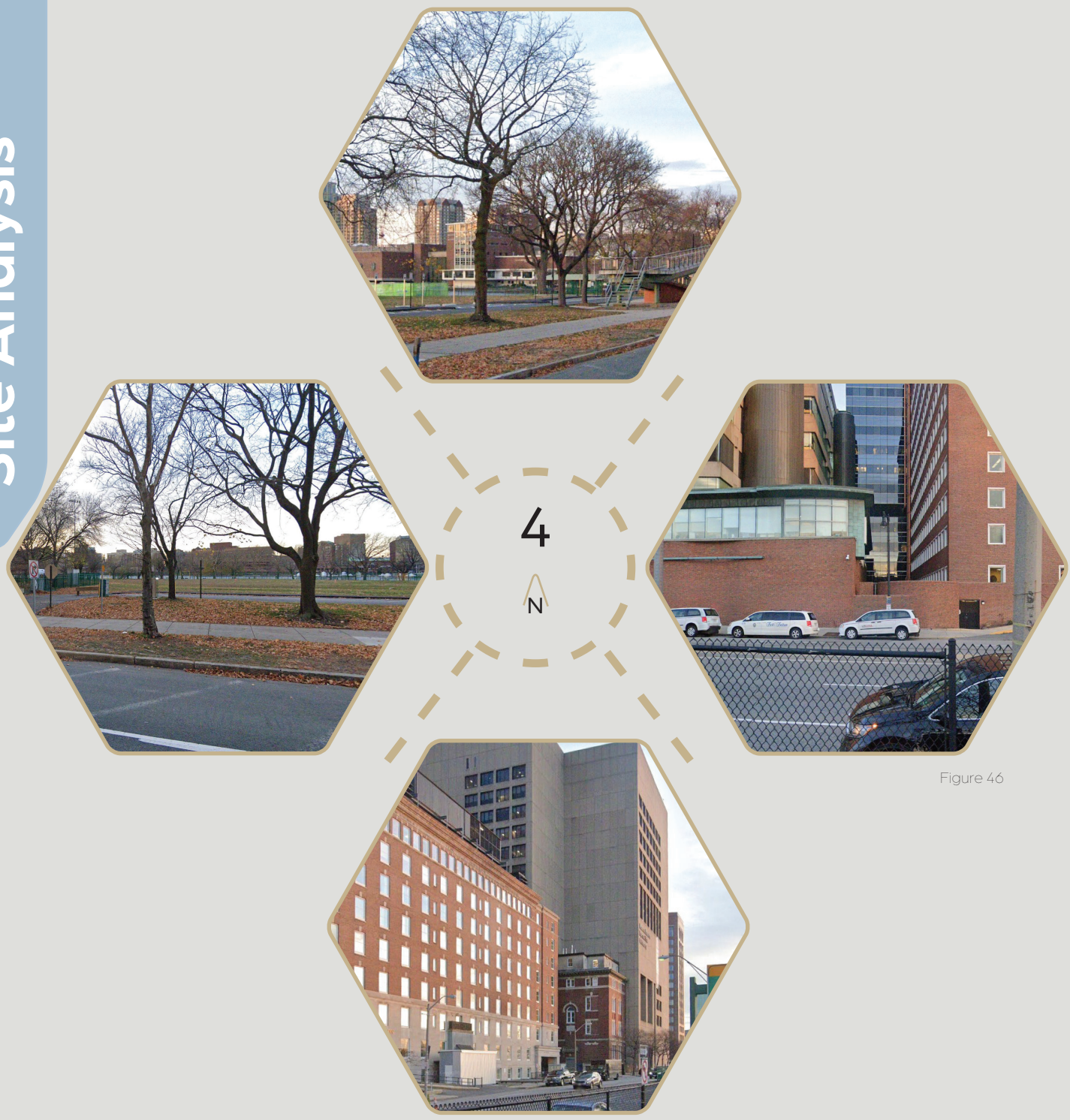


Figure 46

Performance Criteria

Space Allocation:

The project aims to use the site in the most efficient and responsible way possible. As the design aims to add community features that are accessible, but do not intrude heavily on the site. As the site is located on the river, the design program should appropriately be designed to limit access and city atmosphere. The space allocation will change throughout the design process, to achieve this. The overall performance will be rated and determined by myself, and my primary thesis advisor.

Energy consumption:

The energy consumption will be managed, as the project dictates many public spaces that will require power to be used to their fullest potential. The design will incorporate many ways of controlling the energy consumption and include ways of energy generation. Here the project will be judged on the estimated power use and power generation.

Psychological Impact + Behavioral Performance:

The ways visitors behave within the project and the impact to has on visitors, is crucial as the project aims to help provide a architectural solution to providing an introduction to behavioral therapy. The mind and behavior of people is incredibly difficult to judge as we are all individuals. Extensive typological and experimental research has been done to provide a way to create these spaces. As the design develops interviews that are not based in research will be conducted with friends, family, colleagues, and strangers to evaluate potential successes and failures.

Performance Criteria

Environmental Impact:

As previously mentioned, the site is located on a river, which requires proper understanding of the environmental impacts. The design will take special consideration of that site feature, like provide access and proper drainage control. Secondly the project will understand the urban environment it is in and incorporate feature to enhance and mold urban fabric. The success will be evaluated through LEED guidelines.

Code Compliance:

The project will be designed to all relevant building codes. The site being in Boston, Massachusetts where the state codes (780 CMR) are based on 2015 IBC, IRC, IEBC, IMC, and ISPSC, as well as 2018 IECC. Any issues or question throughout design process will be directed to NDSU faculty or code officials.

Cost:

The cost of the project will be considered, in a manner of potential cost but in a way that it will not interrupt design potential and goals. As the project needs to focus on new and innovative use of architecture and its ability to create a unique experience that provokes a certain response.

SPACE ALLOCATION TABLE

Space	Square Feet (SF)	Percentage(%)
Community Building Entry	500	1.4%
Black-box Theater	1,500	4.4%
Backstage	1,100	3.2%
Public Restrooms	750	2.1%
Offices (Community)	500	1.4%
Maintenance building	550	1.5%
Mechanical	1000	2.8%
Info-center	500	1.4%
Pavilion Cluster 1	13,500	39%
Pavilion Cluster 2	14,500	42%
Total	**34,400SF**	**100%**

Figure 47

SPACE INTERACTION MATRIX

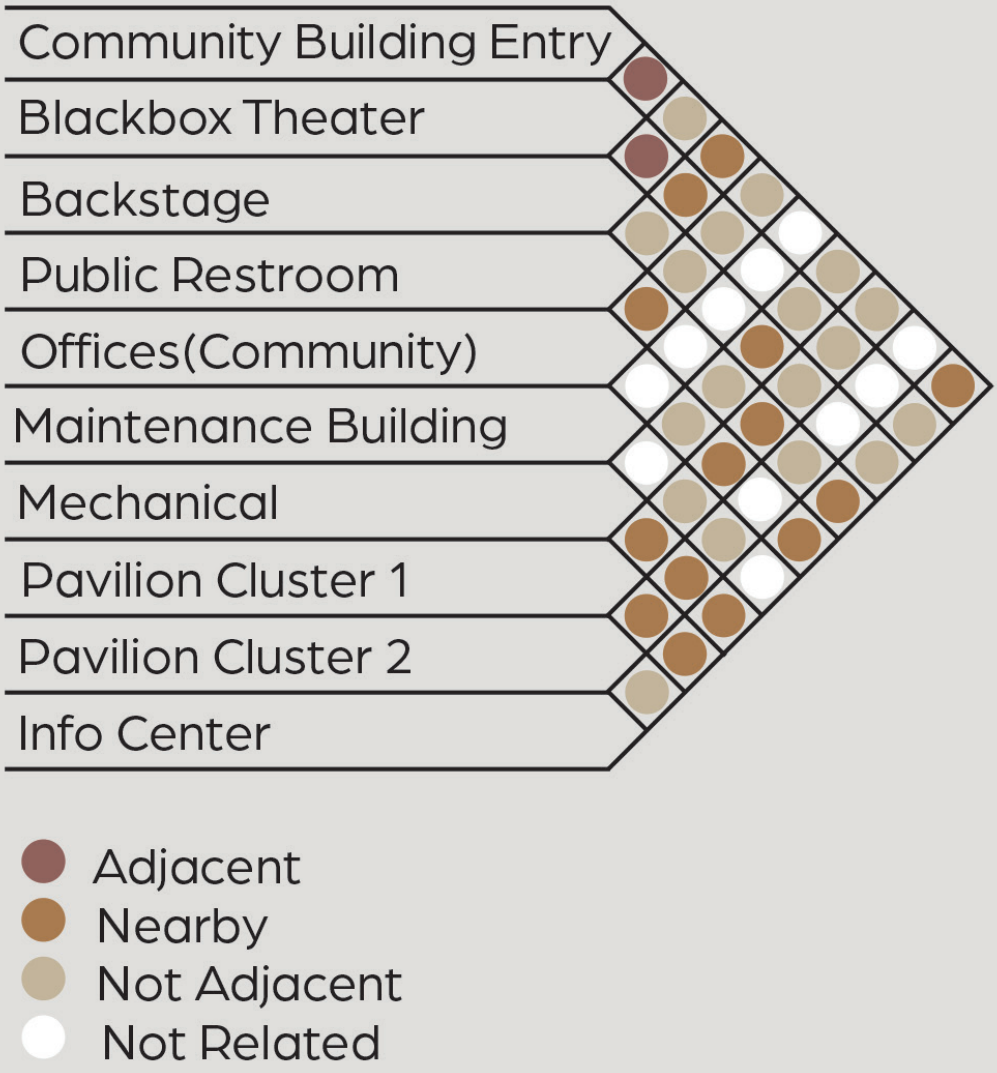


Figure 48

SPACE INTERACTION NET

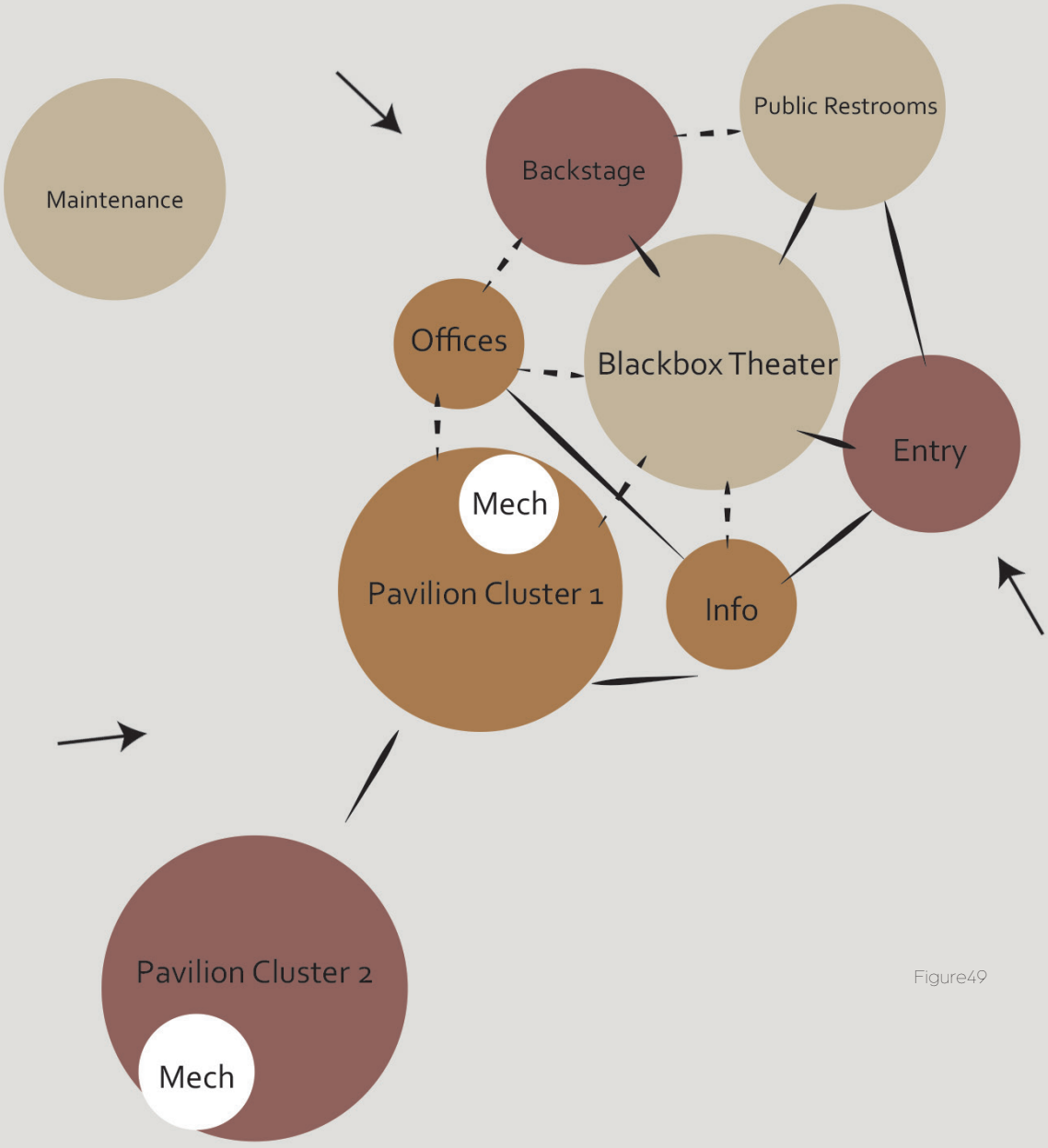


Figure49

Design Solution

Goals Development

The creation of design goals was used as a transition between research to design. Using the research to formulate goals that both highlight personal ambitions for the project as well as meaningful research points. The goals both serve as a reference material through out the design process, as well as a way to critique final design. So when creating these goals and future guidelines making a strong connection to the research was crucial. From the research on cognitive behavioral therapy, sensory design, and experience based installation art the following focuses were derived, Approachability, Healing Environment, Connection, Interaction, Innovation, and Sustainability.

Approachability

– Create a Comfortable space to come for treatment, work, community events, and experiences. By providing a clear entry that provides a moment before choosing experience.
– Welcomes all types of visitors, with access to plenty of public space
– Encourages and inspires all visitors to engage with people and architecture.

Approachability is a key goal from the research done on Cognitive behavioral therapy and the precedent research on healing architecture. Cognitive behavioral therapy is an effective at treating an incredibly wide range of mental illnesses. This alone validates the inclusion of an approachable project, as the methods and ideas of cognitive behavioral therapy can help so many people struggling whether they know it or not. There is also elements of approachability through out the case studies done on healing architecture. For example the Nuuk psychiatric hospital opens it first floor to nature making the transition from nature to institution more seamless and approachable.

Healing Environment

– Provide spaces that help both individuals and groups heal
– Create a variety of sensory experiences to enhance healing experiences
– Incorporate nature as much as possible to create separation for Urban environment
– Provide unique healing experiences through architecture, nature, community

With healing environment the importance of creating a space that accommodates both individuals healing as well as groups, come from the article “Using Group in Group Therapy” where the importance of both instances was validated. That same article also highlighted the need for a distance to be created one that is both mental and physical, justifying the need for separation from the urban environment that create the distance from the physical realm and use sensory experiences to create a mental distance needed for healing.

Goals Development

Connection

– Have a strong connection to the city and culture to increase potential community use.
– Have distinct flow of the many individual functions of the project, in having both strong connection and separation
– Create areas for visitors to connect with the site as well as socially

Connection is crucial as it what ties the experience to the people creating a connection to Boston as a city and a community, that can both connect people to healing opportunities and each other. From research done on the precedent study specifically Bridgepoint Active Healthcare and there use of community connection to provide an encouragement to patients and community to come together and heal. The bridgepoint facilities also have a distinct separation that help all function run smoothly. So capturing this balance of connection will be crucial to a successful design.

Interaction

– Has a plan that encourages interaction with both the architecture and community.
– Provides an opportunity to interact with therapeutic zones to everyone, groups or individuals, all ages, and any type of visitor

The interactive element of the installation artwork of Saraceno and Kusama, provide a glimpse into what a space can do to the human cognition. In creating a design that capitalizes on the experience making potential of architecture with intractability of these artwork to provide an experience to truly help change ones cognitions. Each interactive element should be accessible by most people to truly benefit the community and the wide range of capability cognitive behavioral therapy.

Innovation

– Uses new technology to re-imagine the therapeutic process of Cognitive behavioral therapy.
– Provides new innovative experiences through interactive therapeutic zones, connections to nature and community, and availability to all users.

The goal of innovation is derived mainly from the need for it with the theoretical premise, with the precedent research and the research on cognitive behavioral therapy as baseline into what is being done today, to push architecture further innovative sensory and interactive design needs to be utilized to create architecture that become the tool in therapy.

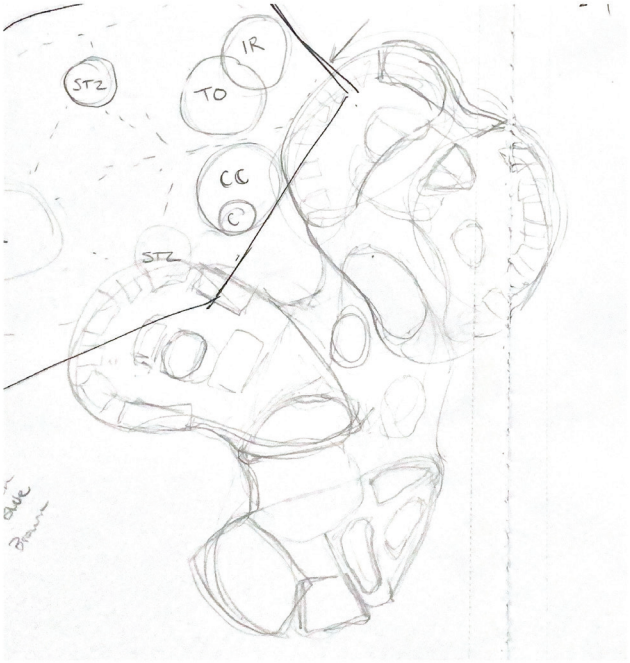
Goals Development

Sustainability

– Maintains natural aspects of the site through incorporation of nature throughout and a pubic park
– Uses common LEED and Passive principals, Daylighting, passive cooling and heating, and water collection. Hoping to achieve LEED platinum or gold without straying away from theoretical premise.

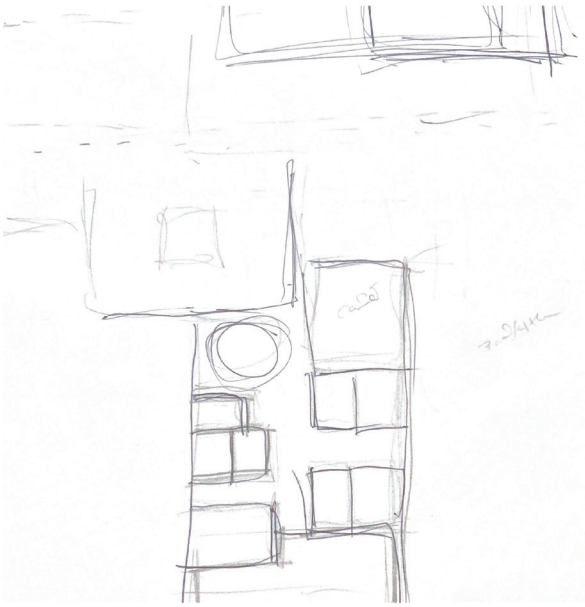
As a project that is both a site that is within a park and also located in a downtown area, sustainable design elements must be utilized to maximize the projects use both as a healing space and a space for the city. The daylighting practices of all the case studies showcases just of many viable solution to both engage passive principles and a connection to nature that all the researched healing contained.

Early Scheme Development



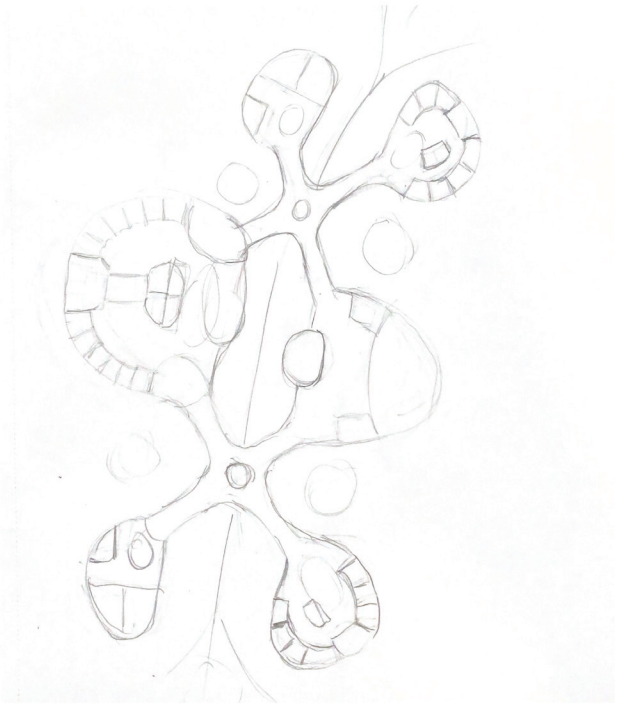
Early Pods Sketch

To begin with the schemes sketches were done primarily in plan and organizing the needs and spaces required



Early Stacked Sketch

Figure 50



Early Linear Sketch

Scheme 1: Pods

Scheme 1: Pods

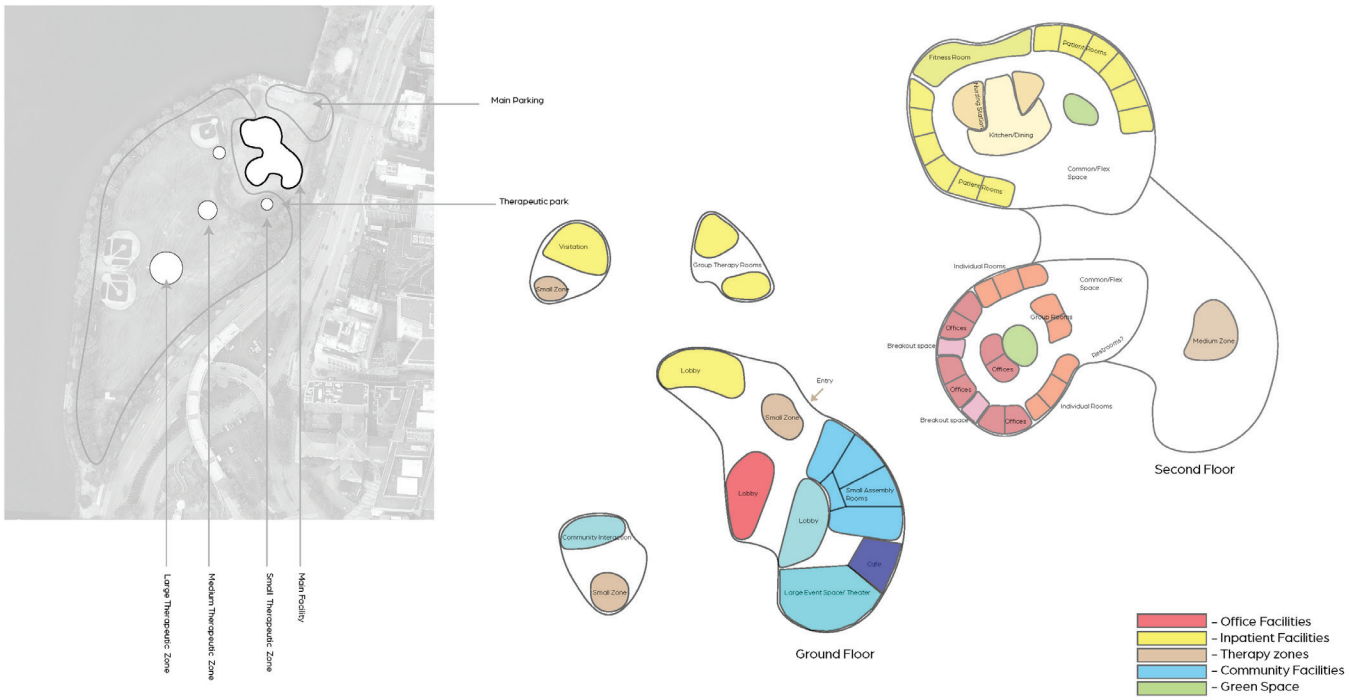


Figure 51

Using a system of clusters of similar uses into a form that separates them into pods that have unique interactions with each other through shared space. Allows for both the approachability of choice with it's central lobby leading into the clustered uses. With connections between nature and community through the integrated park link with shared healing space.

Scheme 2: Stacked

Scheme 2: Stacked

Figure 52

Organizing again in grouping based on use but operating them through a stacked form. That has distinct area for each use with little crossover besides a shared entry, green spaces, and some shared community space. The stacked scheme has less flow between uses but more efficient use within each area.

Scheme 3: Linear

Scheme 2: Linear

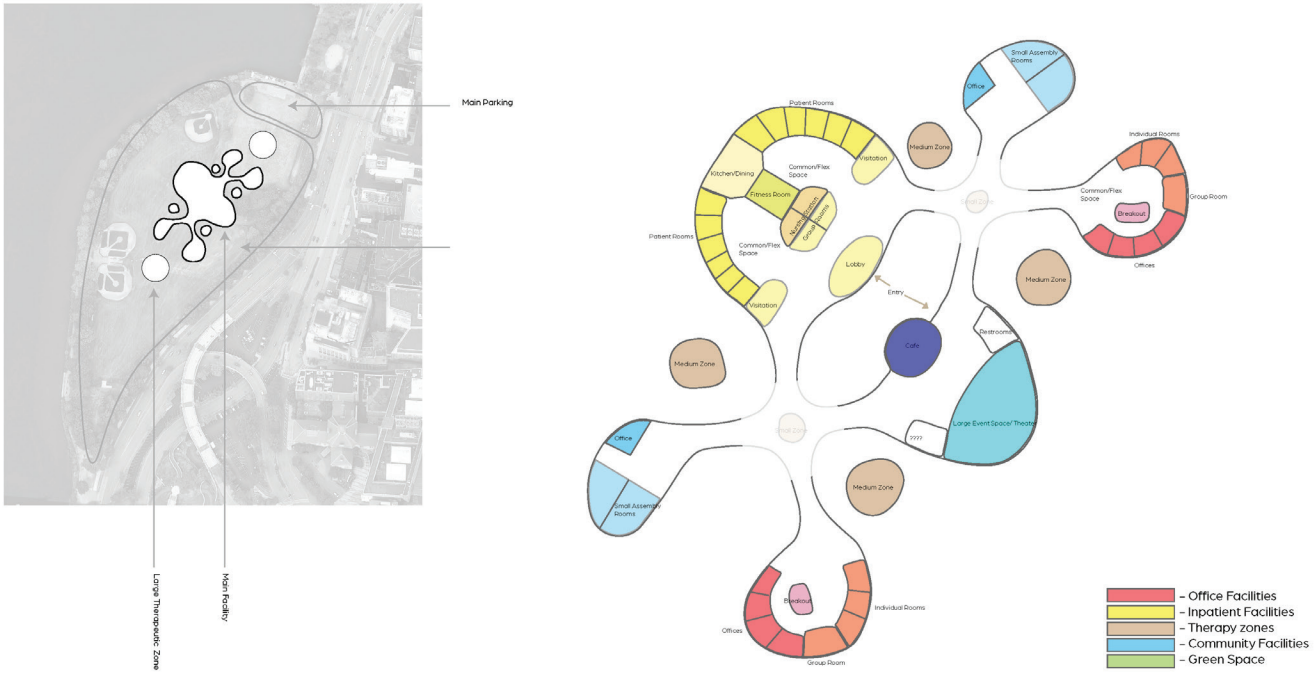


Figure 53

Scheme three uses a delayed entry to make entering the space a more connected experience allowing for understanding of the building before entering. It focuses of extreme connections though interwoven circulation that allows for a shared healing experience that is interwoven with nature, community and therapeutic experiences to provide a singular shared space.

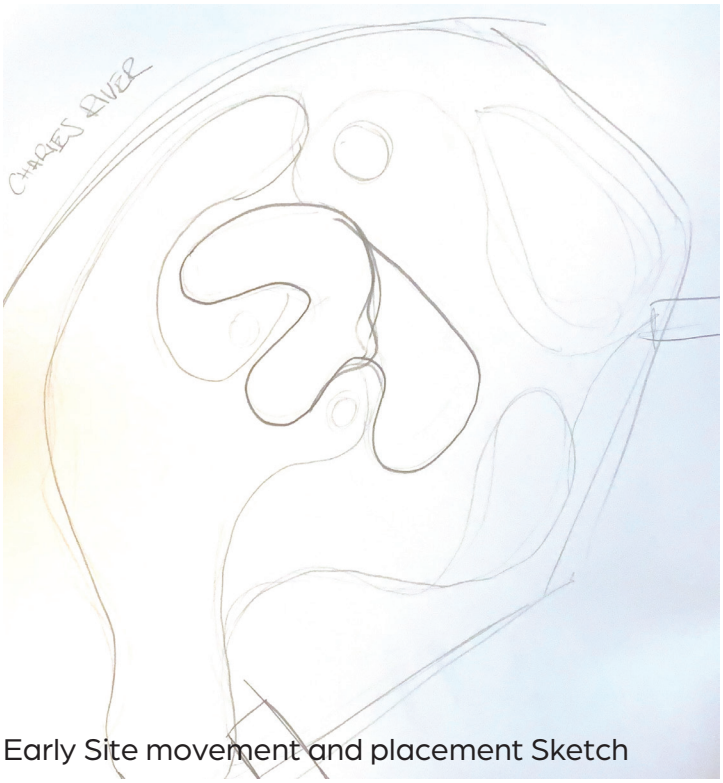
Scheme Evaluation

After getting student feedback on each scheme through the lens of our design goals. The process of evaluating which scheme was the best to peruse further into the design process. The feedback pointed to either the pods scheme or the Linear scheme. Ultimatly went with the pods scheme as it managed to balance both connection and the seperation of uses.

EVALUATION CRITERIA	SCHEME 1	SCHEME 2	SCHEME 3
	Pods	Stacked	Linear
Approachability - Create a Comfortable space to come for Treatment, Work, community events, and experiences. By providing a clear entry that provides a moment before choosing experience. - Welcomes all types of visitors, with access to plenty of public space - Encourages and inspires all employees on arrival	●●●●●		
Healing Environment - Provide spaces that help both individuals and groups heal - Create a variety of sensory experiences to enhance healing experiences - Incorporate nature as much as possible to create separation for Urban environment - Provide unique healing experiences through architecture, nature, community	●●●		●●
Connection - Have a strong connection to the city and culture to increase potential community use. - Have distinct flow of the many individual functions of the project, in having both strong connection and separation		●	●●●●
Interaction - Has a plan that encourages interaction with both the architecture and community. - Provides an opportunity to interact with therapeutic zones to everyone, groups or individuals, all ages, and any type of visitor (patient, employees, community member)			●●●●●
Innovation - Uses new technology to re-imagine the therapeutic process of Cognitive behavioral therapy. - Provides new innovative experiences through interactive therapeutic zones, connections to nature and community, and availability to all users.	●●		●●●●●
Sustainability - Maintains natural aspects of the site through incorporation of nature throughout and a pubic park - Uses common LEED and Passive principals, Daylighting, passive cooling and heating, and water collection. Hoping to achieve LEED platinum or gold without straying away from theoretical premise.	●●●●	●	

Figure 54

Pod Development Sketches



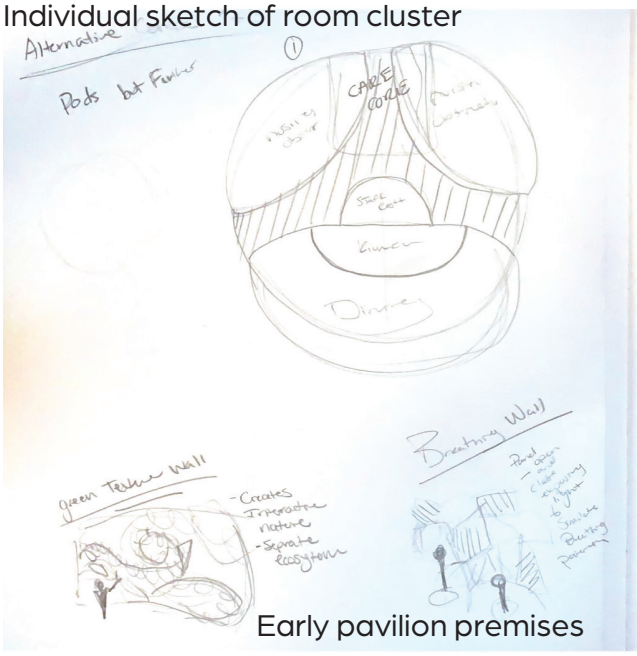
Early Site movement and placement Sketch

After the scheme presentation and feedback, designing a combination of scheme 1 and 3. Was the best option,

–(Top)Beginning to sketch site placement and movement plans
– (Bottom) Exploring new ways for the floor plans to work with a lack of traditional corridors.

Early site placement and pod floor plan idea

Individual sketch of room cluster

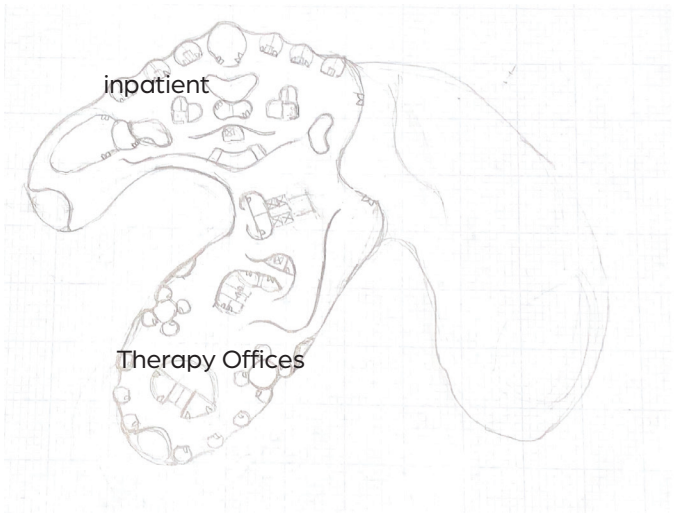


Early pavilion premises

clusters in floor plan sketch

Figure 55

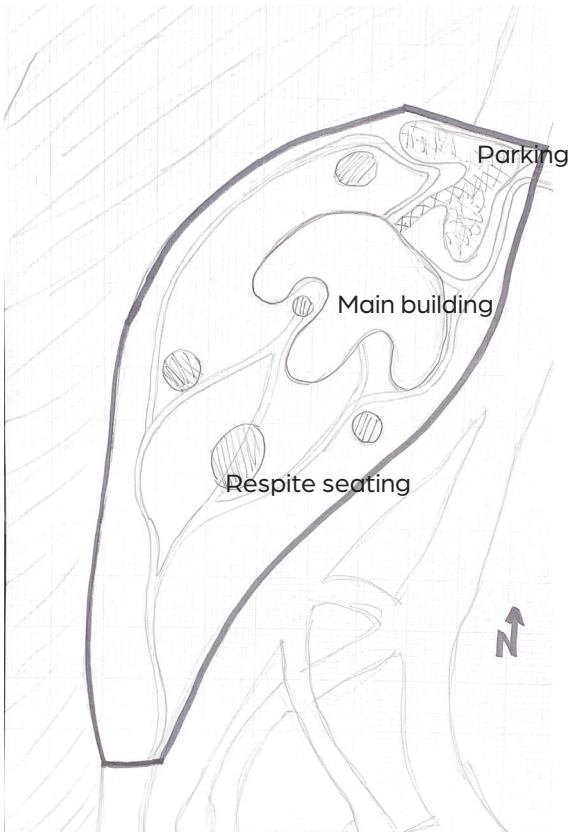
Pod Development Sketches



Level 2 Floor plan Sketch

Level 1 Floor plan Sketch

Figure 56



Further Site Concept

-Moving these sketched ideas into Revit, I made the decision to pivot my design to focus on the just the pavilions and therapeutic park. This was done to focus the project more on the premise and research that was done

Pavilion Design Sketches

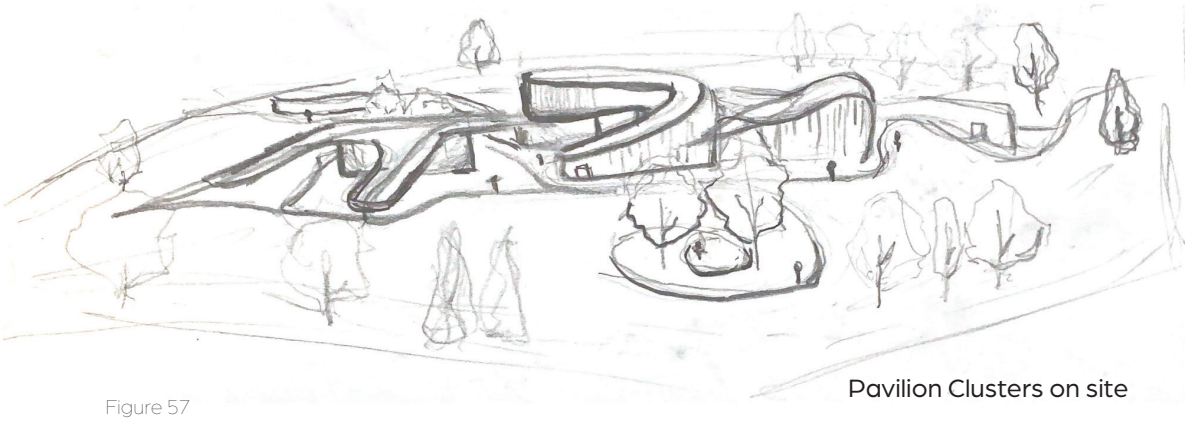
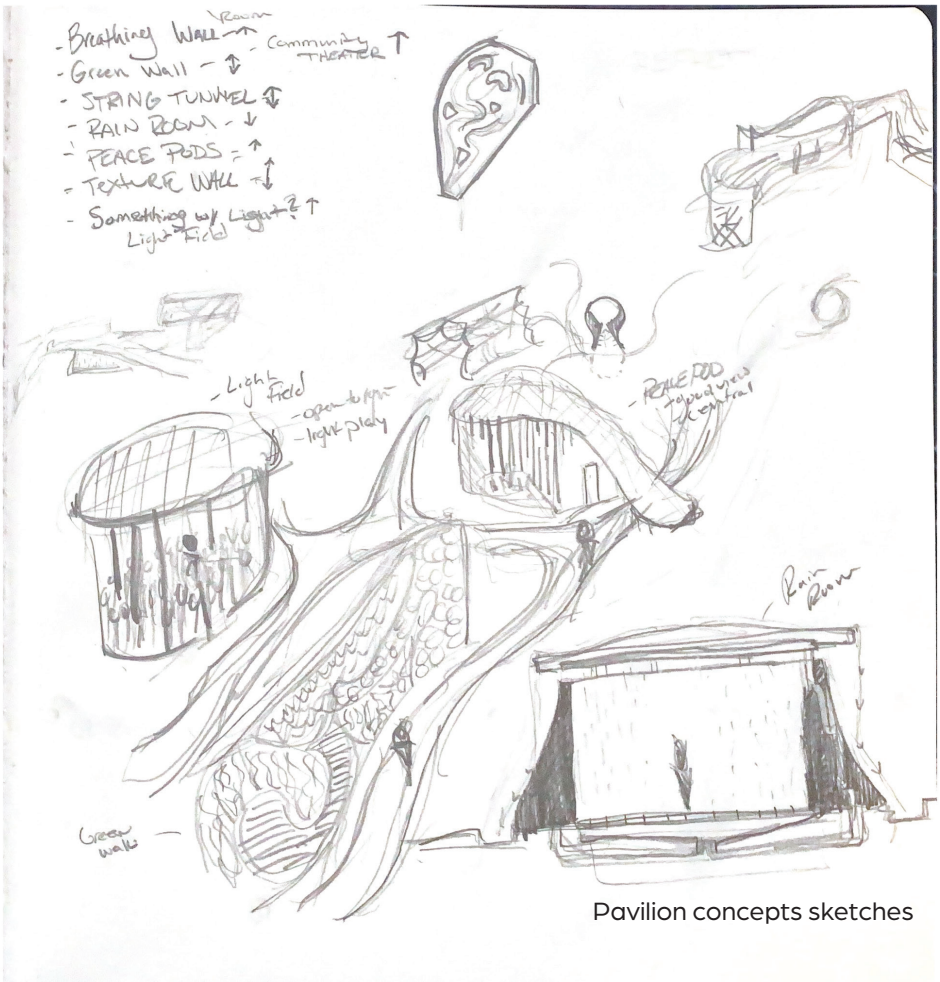


Figure 57

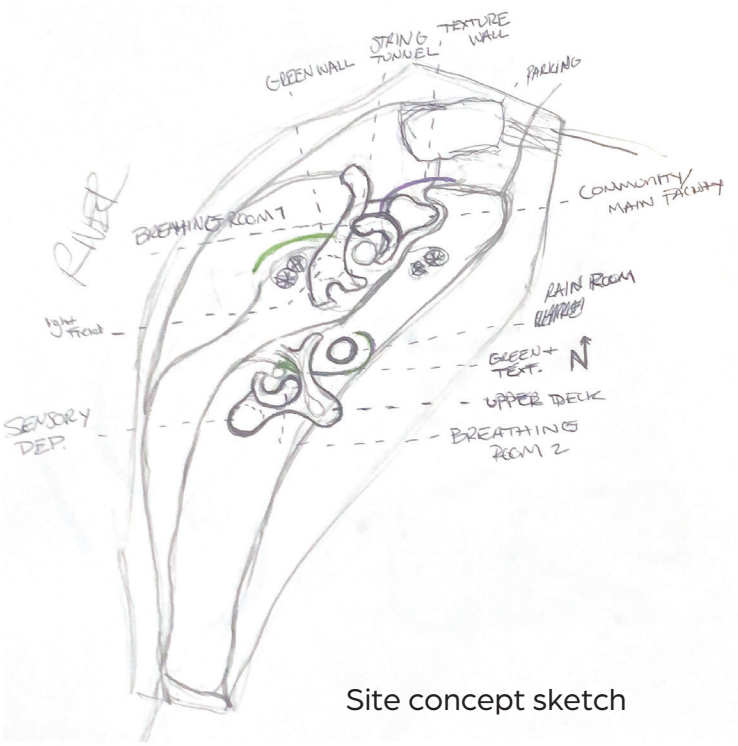
Pavilion Clusters on site



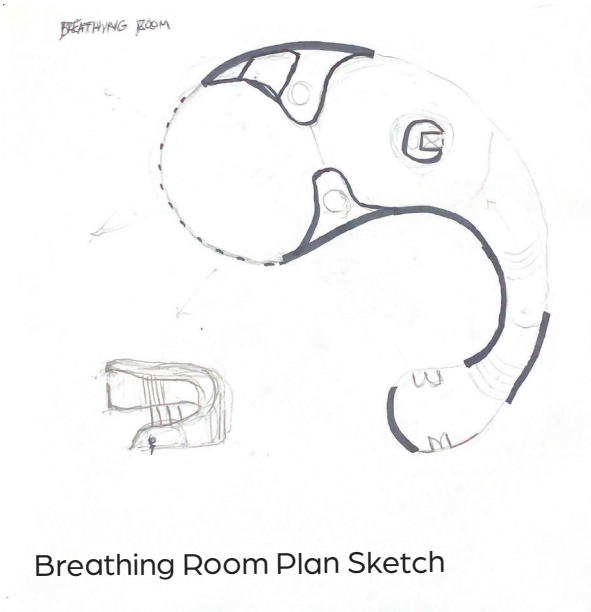
Pavilion concepts sketches

due to this change in design the project, it allowed for a rethinking of form that better fit the goals of approachability through a clustered pavilion.

Pavilion Design Sketches

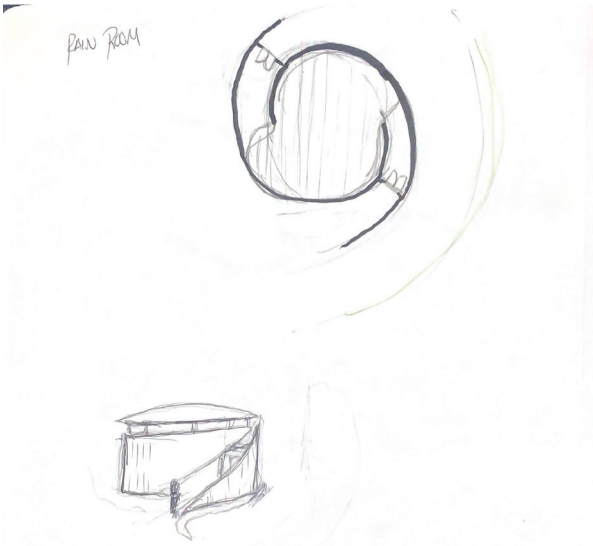


Site concept sketch



Breathing Room Plan Sketch

Figure 58



Rain Room Plan Sketch

Deprivation Room plan sketch

Design Solution

RESPITE PARK

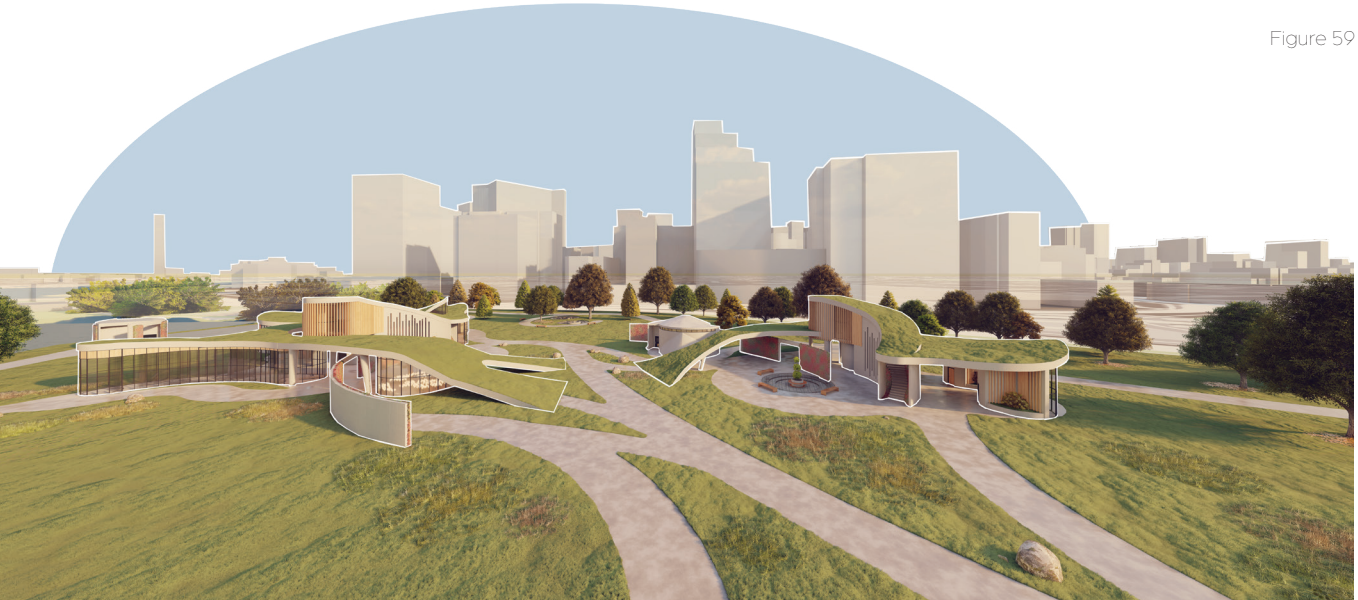
Changing Therapy with Community and Architecture

"Architecture is a social activity that has to do with some sort of communication, or places of interaction, and that to change the environment is to change behavior" – Thom Mayne

Architecture is more than just a group of walls defining space; Architecture is a blank canvas that is painted with strokes of human connection, interaction, and experience. It is in these gestures that architecture gains meaning and power. This power is to influence human thought and perception through experience and interaction. Using this influence to allow for a positive change in mental health is what this design response is founded on. Architecture can become an active tool in modern cognitive behavioral therapy, through the design of interactive social experiences.

Enter Respite Park, a project that changes ideas about modern cognitive behavioral therapy. Located on the edge of downtown Boston, Respite Park introduces new experiences to a wide range of community members. Through connected pavilion structures that house interactive sensory experiences and are interwoven with nature, people can experience a mental and physical distance from the everyday stressors which can heighten many mental health disorders. This separation allows for self-reflection and focus on the body and mind. Within this overall experience, both the self and the community would have access to a new form of modern cognitive behavioral therapy and greater wellness through innovative architectural response.

Figure 59



Project Program Overview

Respite park is unique project that sits on the line of public experiential art, and a therapy center for healing experiences and information, existing primarily in the public realm. Which creates flow of space that can be difficult to comprehend, what is public experience versus what is a private experience. Respite park is meant to be completely public that creates a shared space for mental healing, while providing individual experiences to who are in need of them.

The primary place for social connection would be in the community building that houses a theater and information center, where people can interact with each other and discuss shared experiences. The therapeutic pavilions house experiences that are tailored both to the individual and group use. As one explores the site to find the right pavilion for their needs, they will share a social experience unlike any other. Most of the pavilions when in use have a connection to people outside the experience, showing them in use is key to sharing with the experience with community while motivating others and creating more engagement with the pavilion themselves. This creates an experience unintended as many of the pavilions become a kind of performance art, that creates a new type of interaction with the community that strengthens Respite Park by creating a social dynamic separate it from a normal reality and moves it into a space where healing through experience is the primary focus.

Pavilion Plaza

Figure 60

Project Guidelines

Approachability

– To create a place that metal health healing becomes welcomed and accepted

Healing Environment

– Provide unique healing experiences through architecture, nature, community

Connections

– Have distinct flow of the many individual functions of the project, in having both strong connection and separation

Interaction

– Encourages interaction with both the architecture and community.

Innovation

– Provides new innovative experiences through interactive therapeutic zones, connections to nature and community, and availability to all users.

Sustainability

– Maintains natural aspects of the site through incorporation of nature throughout.

Site

The Site is located just northwest of downtown Boston. Where it is in the center of many separate communities, that can come together for mental healing and respite from the city. Some communities that Respite Park hope to inspire and create a special space for are the, Education community of MIT across the river, the residential community to the south that house a range of residents, the community of the Civic center where many city officials spend their day, and lastly the medical community immediately to sites east, which houses the Massachusetts General Hospital as well as other specialized facilities. The immediate connection to this medical hub through a pedestrian bridge strengthens the project as it can now directly impact patient and families from the hospital. Overall these communities come together in a place where healing and connecting are a primary focus.

Figure 61

Site

On site the user can engage with many features either entering from the parking and pedestrian bridge to the north, or from the south from the preexisting river walk along the Charles River. The site features a community building housing a black-box theater and infocenter. A total of five therapeutic experiences with the two pavilion clusters, and spread out respite seating area for quest to connect with the site and nature.

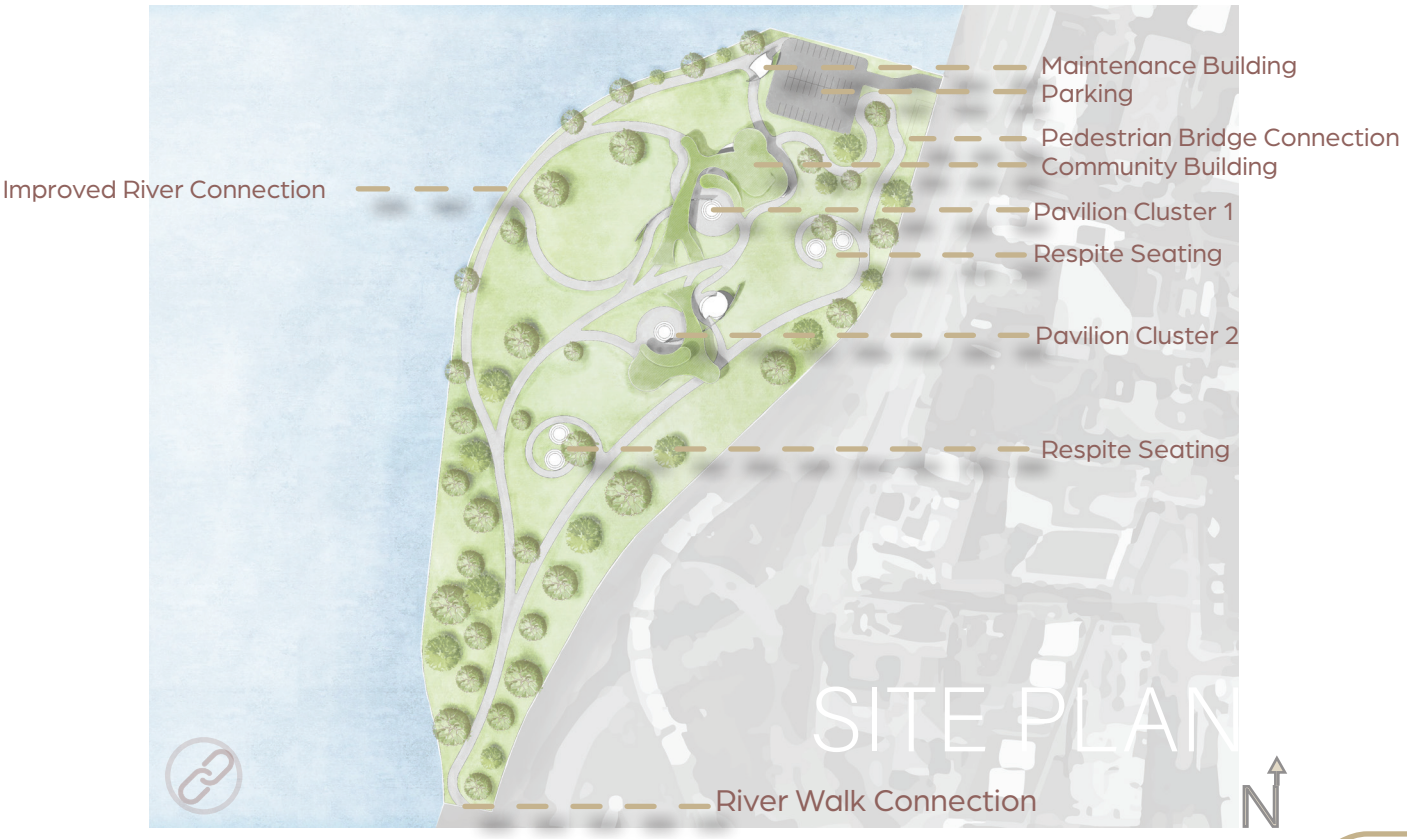


Figure 62

Site

The user can enter the site either from the north and the south. Coming from the north the user makes their way south meeting the entry to the community build where if they choose to enter they will find events and an infocenter on the park and cognitive behavioral therapy. From there they enter the pavilion experience that encourages exploration and discovery at you own pace through individual clustered pavilions that are connected under a large planted green roof. After that the user can choose to engage with the nature of the site at one of the respite seating areas.

If the user is coming from the south they are first greeted by the nature of the site which acts as a natural transition from urban to park space. Here they can chose to continue experiencing nature and head to the river connection or head to the pavilion and community building experience.

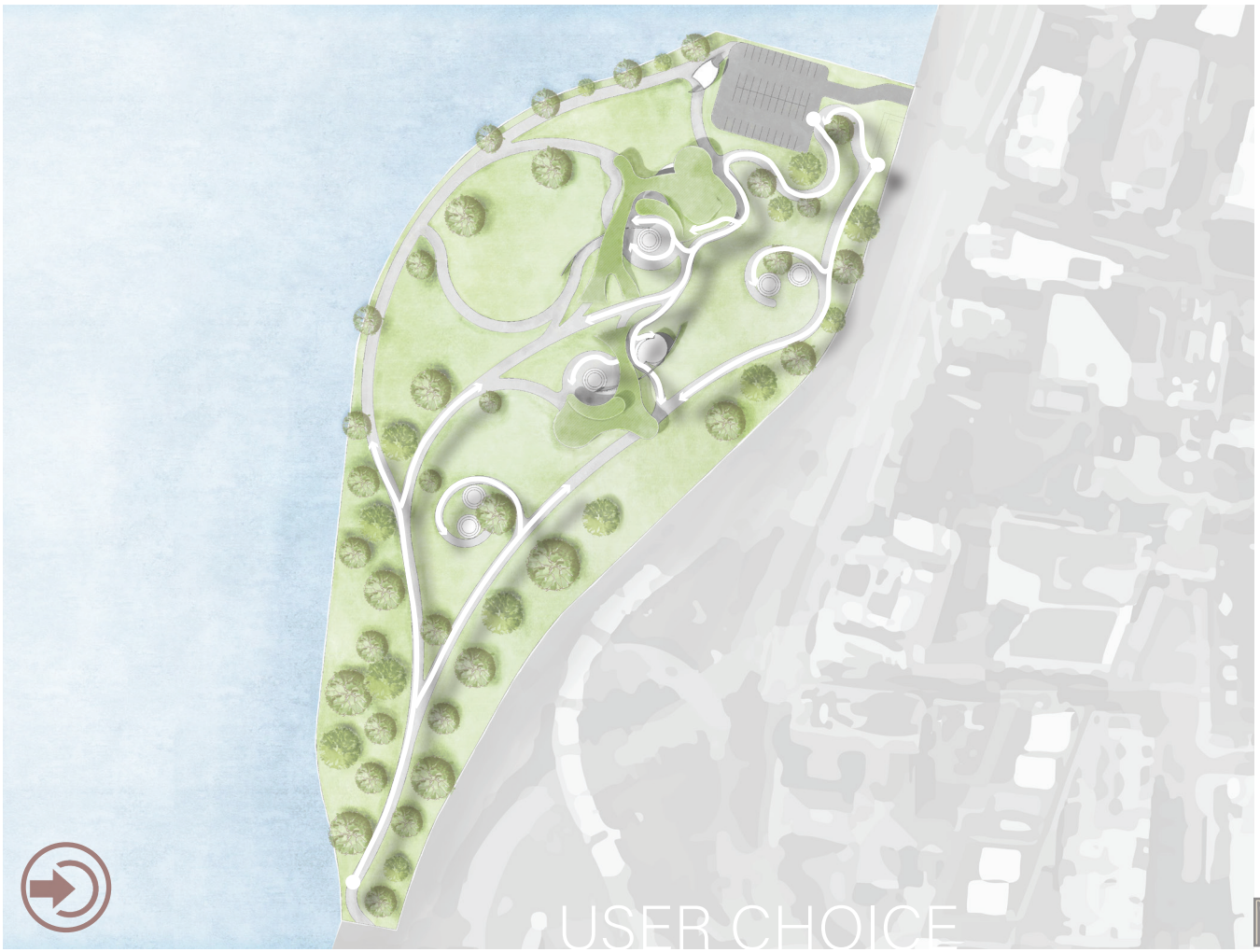


Figure 63

Floor Plan

Figure 64

Community Room

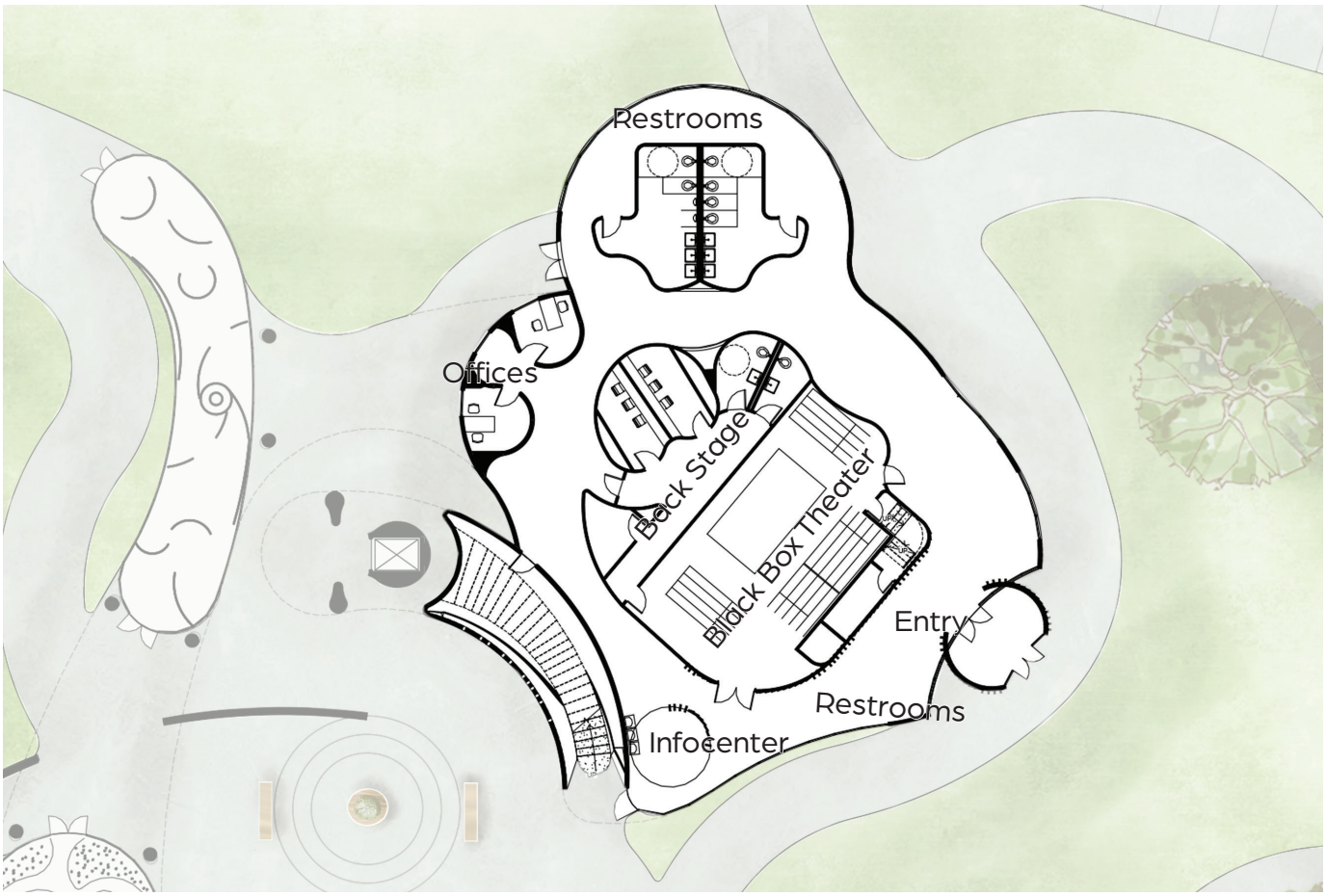


Figure 65

Therapeutic Experiences

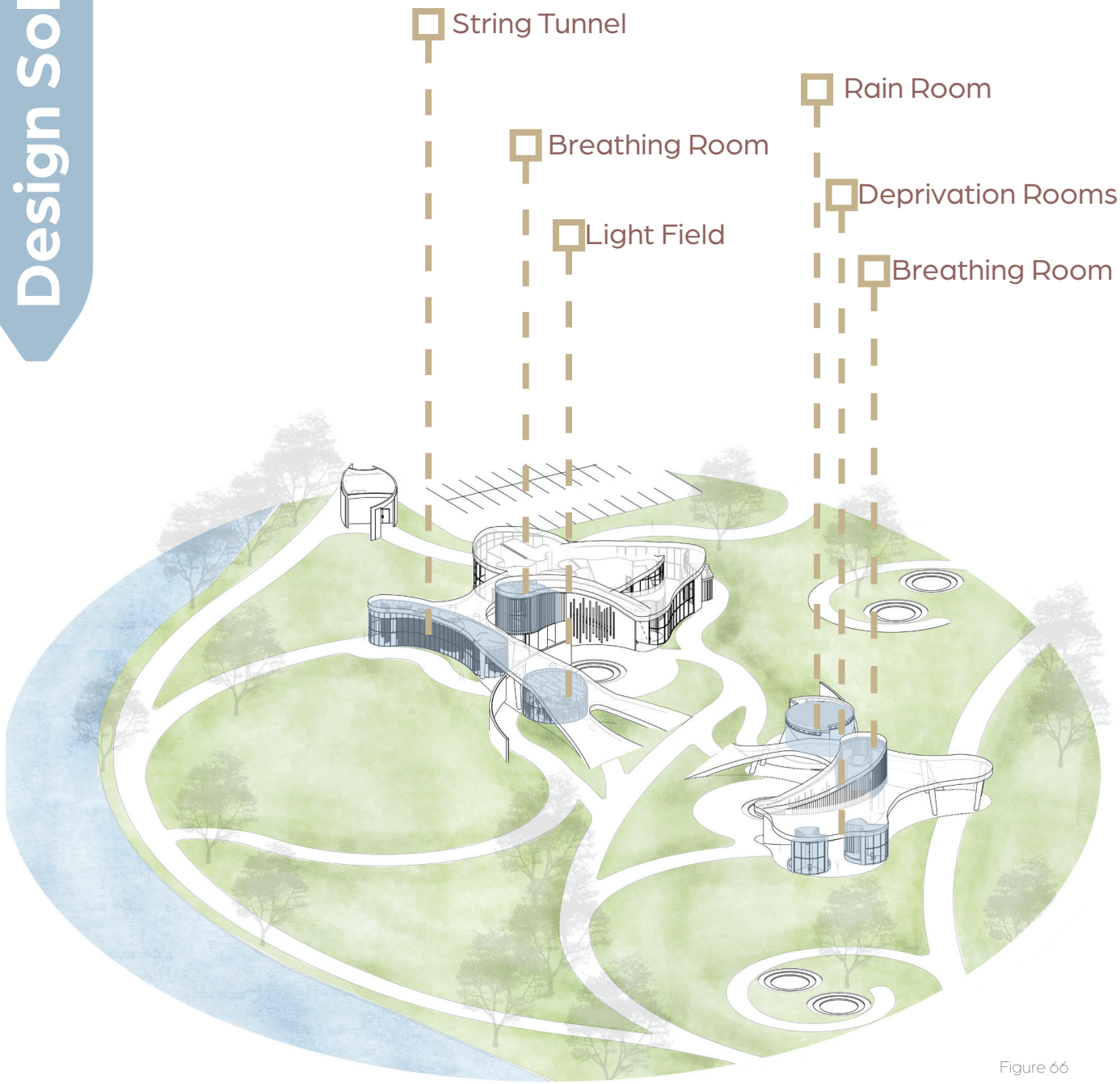


Figure 66

Breathing Room

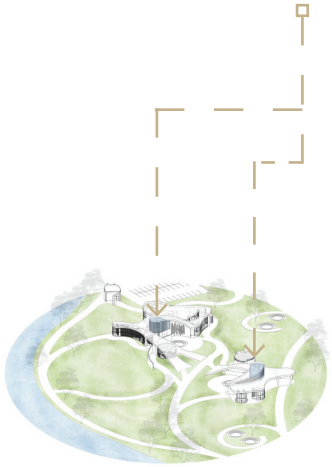
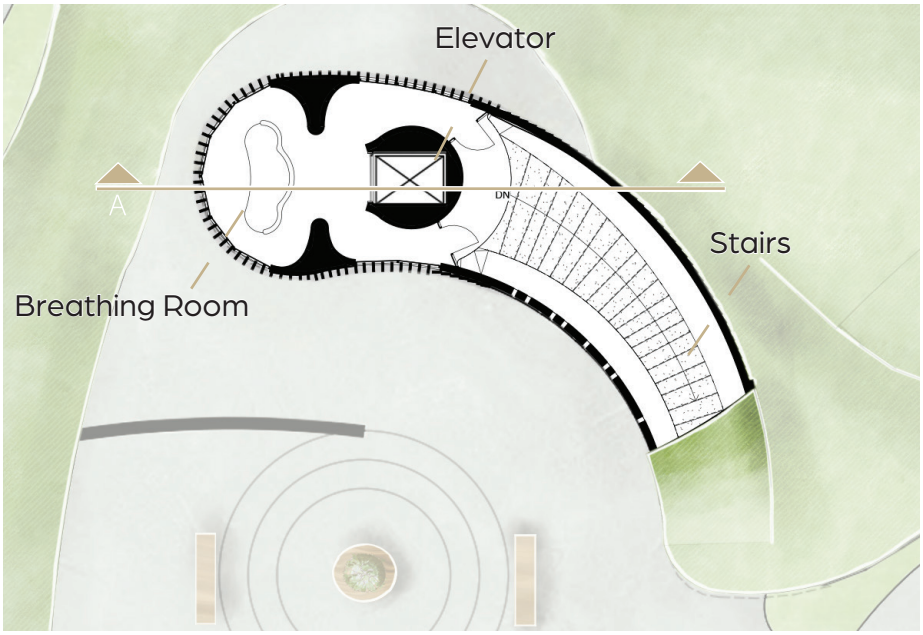


Figure 67



– The Breathing room is simple in premise it is a small space that helps the user get in touch with themselves through focused guided breathing and views of nature.

– The guided breathing is done with the help of the interactive facade that is active during pavilion use. As the facade opens and closes the users view to the world in proper timed meditative breathing.

– The facade also provides optimal daylighting and shading potential. This in combination with the green wall and open air staircase provide a basis for a sustainable pavilion.

Section A

Figure 68

Plaza View of Breathing Room

Figure 69

Breathing Room Interior (open)

Breathing Room Interior (closed)

Light Field

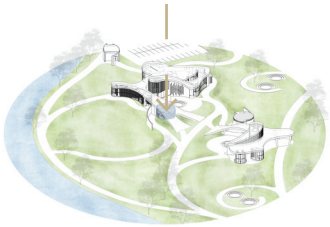
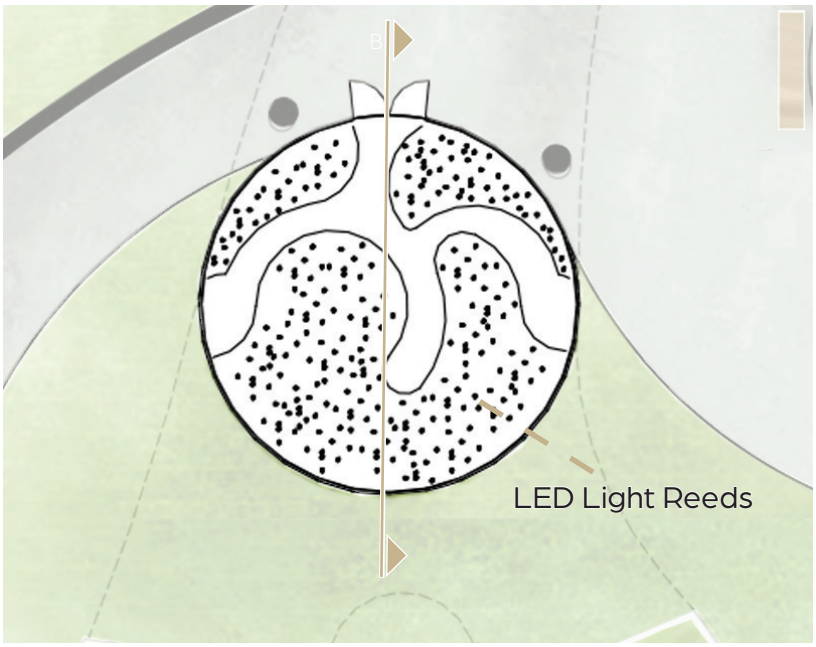


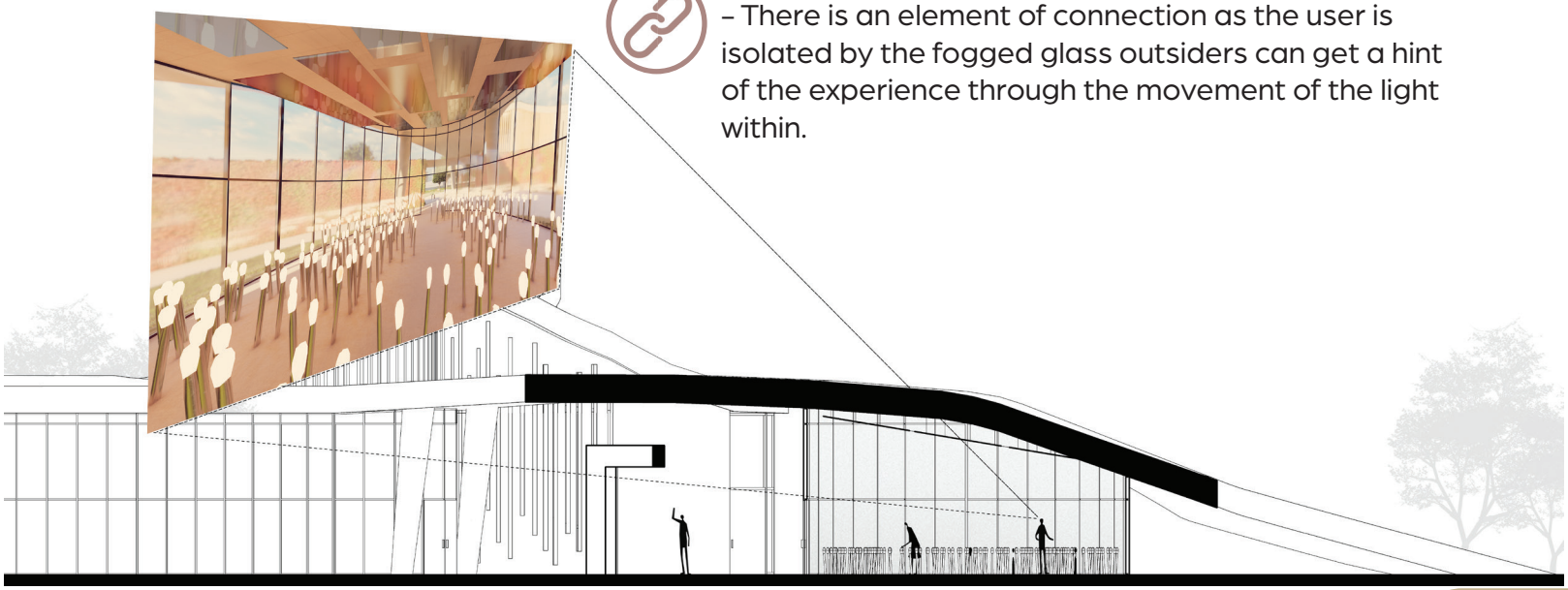
Figure 70



– Using light to create visual elements of control and play, makes a world where the user has total control and can contemplate things in life where they may less.

– The Light Field uses LED lights that act like grass in a field, that can be turned on and off with contact. The field is reflected by a mirror ceiling and encased in fogged glass, to created the isolated world of control.

– There is an element of connection as the user is isolated by the fogged glass outsiders can get a hint of the experience through the movement of the light within.



Section B

Figure71

Plaza View of Light Room

Figure 72

Light Field Interior

Light Field (Aria I)

Rain Room

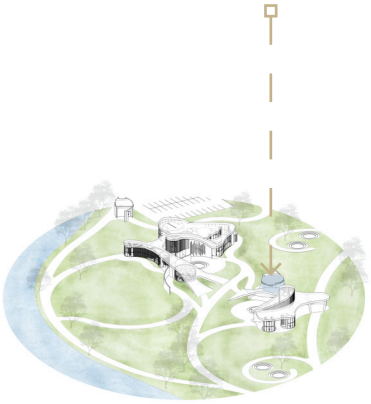
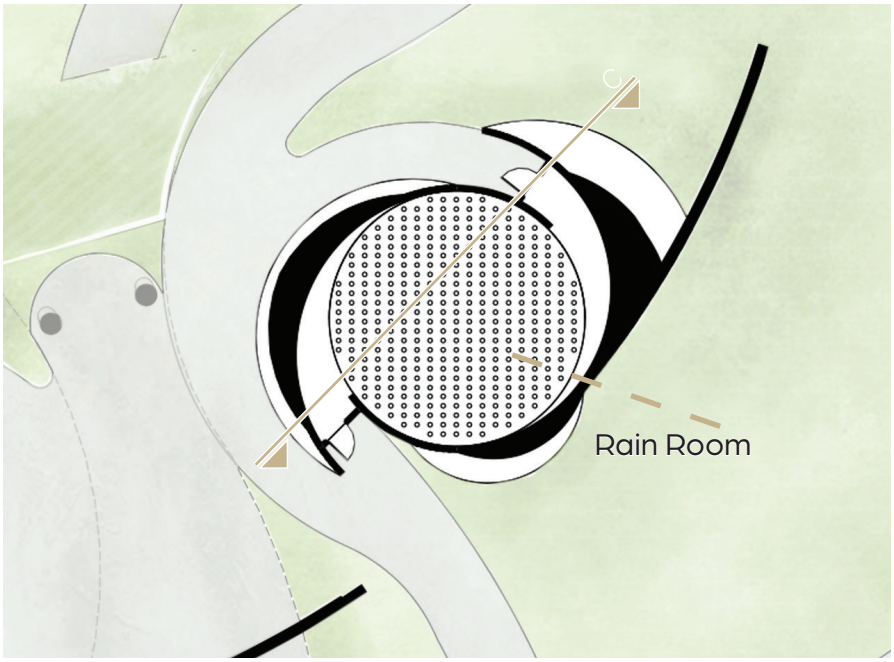


Figure 73



– The Rain Room is a surreal experience that uses simulated rain to create a feeling of isolation that is enhanced by the sound of falling water, to create a calming world distant from the real. Which gives the user time and space to self-reflect.

– With the use of motion sensors that detect a persons movement, the room can turn off the sprinklers above the user surrounding them in rainfall while keeping them dry as they move through the tranquil room.

– The Rain Room also collects rain water using its rounded roof and slanted walls, as well as recycling water it uses to be an almost purely renewable system

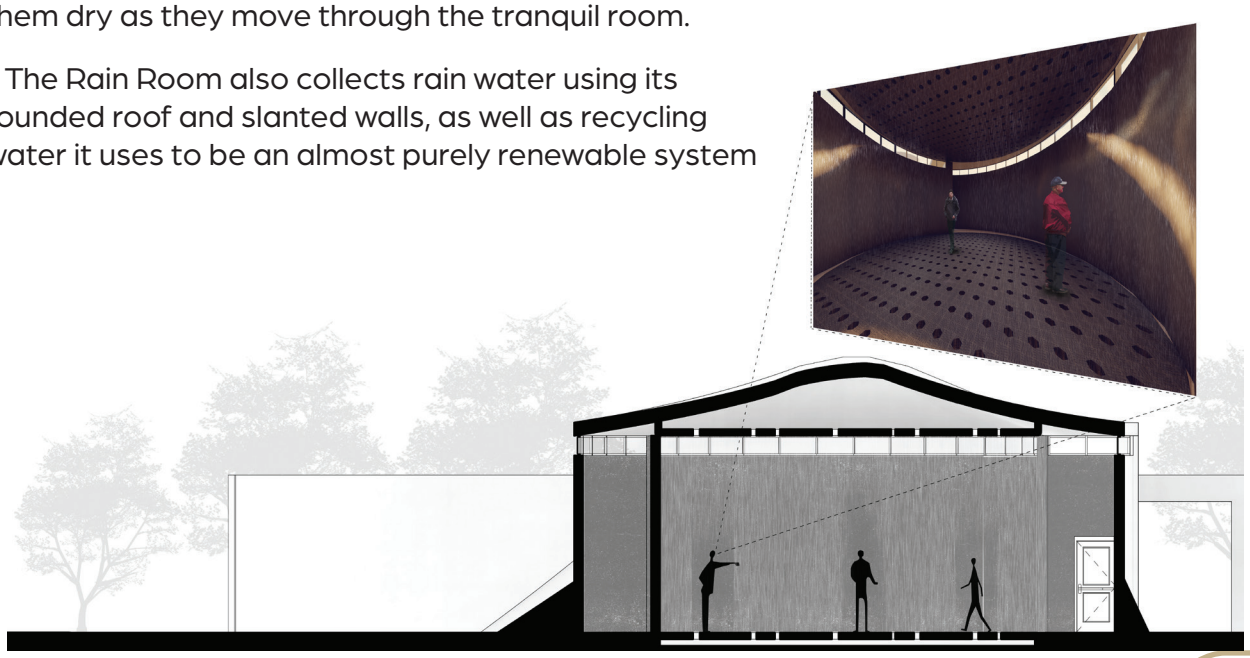
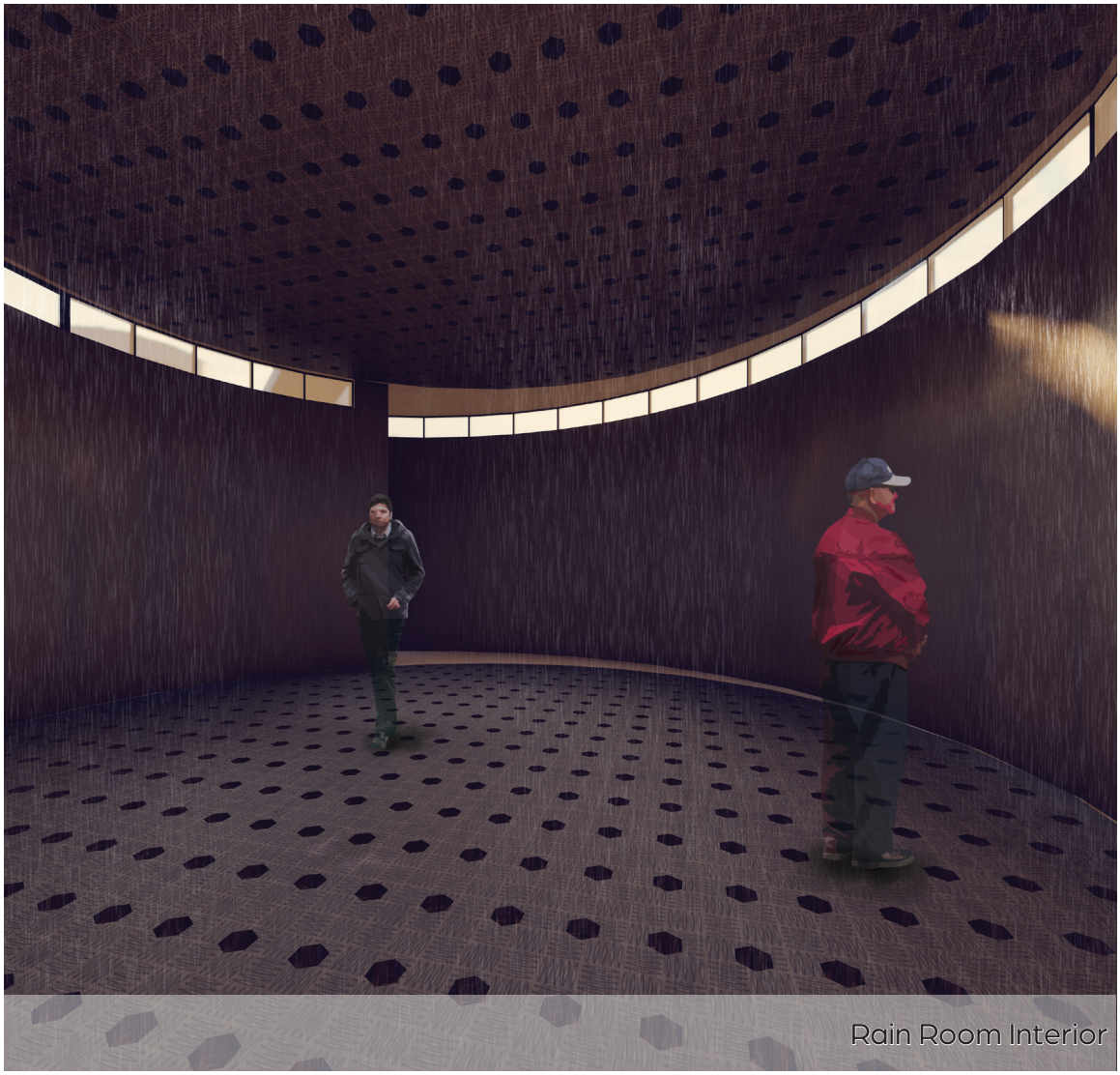


Figure 74

Section C

Figure 75 Plaza 2 View of Rain Room



Rain Room Interior

String Tunnel

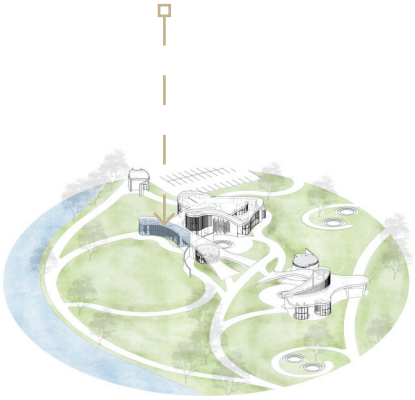
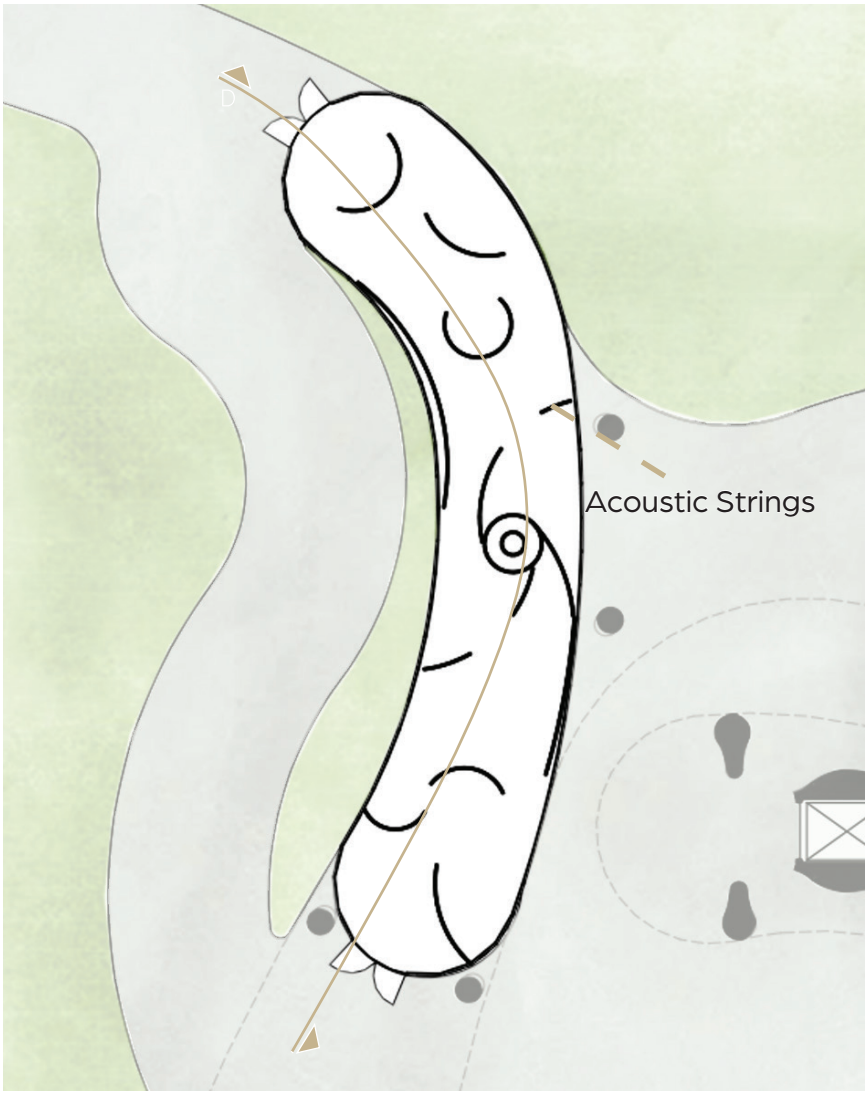


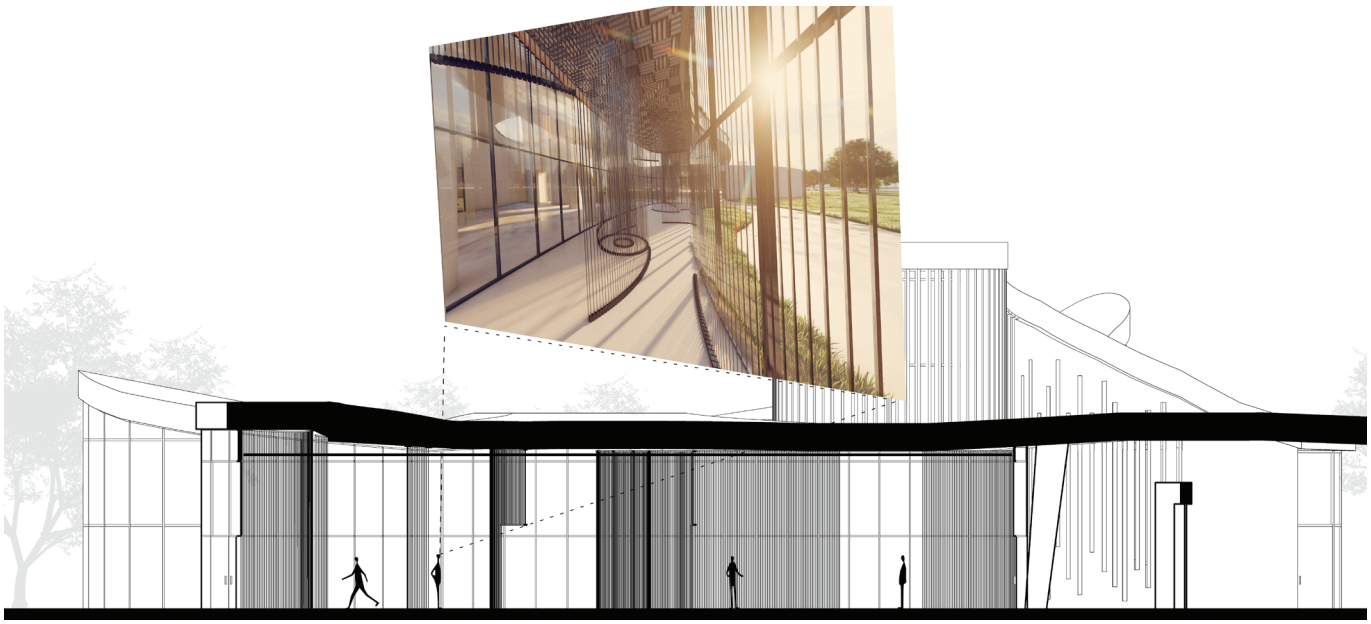
Figure 76



– The String Tunnel focuses on the social elements of healing using sound and music to connect users that are feet apart. Using user generated sounds to create a shared healing experience focused of connection and expression.

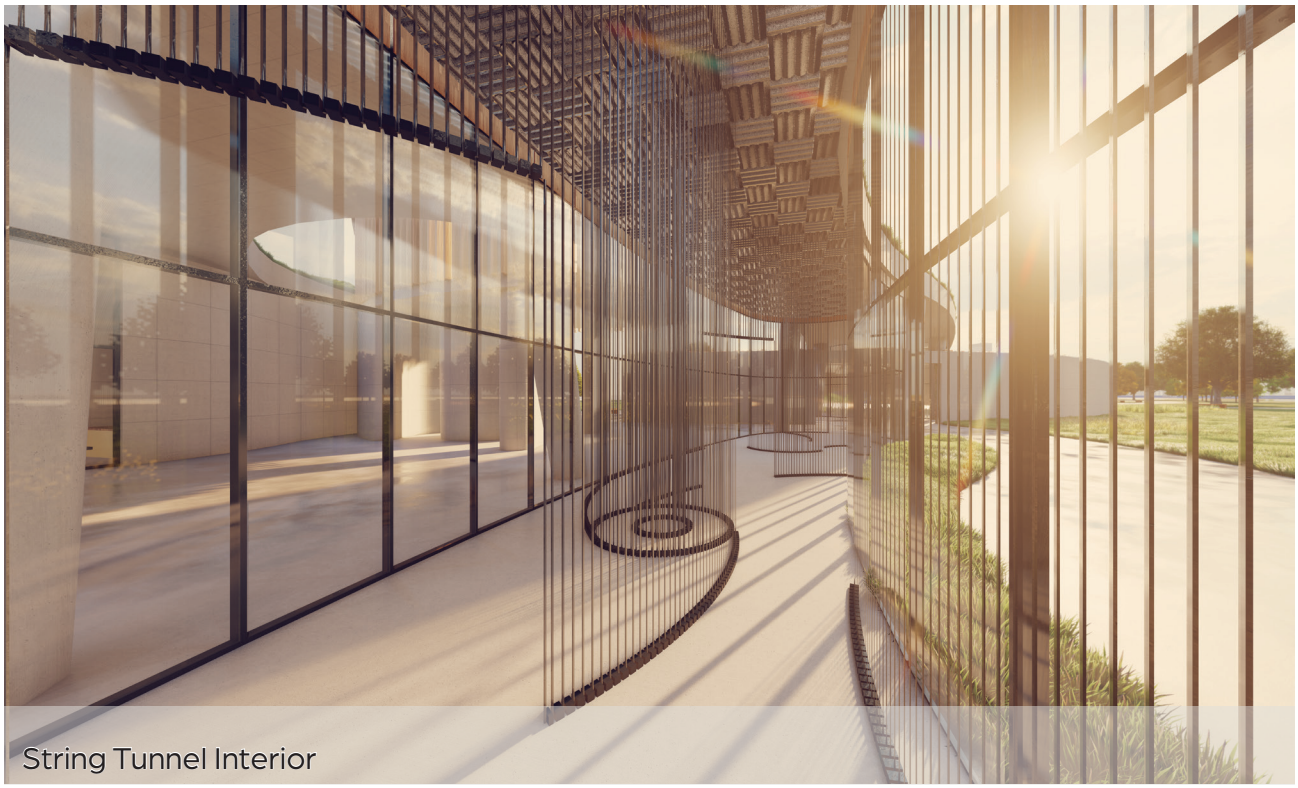
– The experience consists of many acoustic strings suspended floor to ceiling that create an interactive tunnel to experiment with the making and sharing of sound.

– The String tunnel's goal is to create easy first steps in sharing a healing experience with another person. As engaging in therapy as a group has many benefits.



Section D

Figure 77

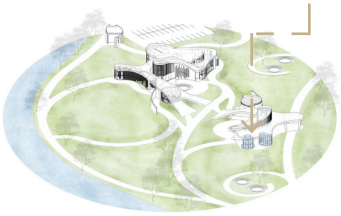


String Tunnel Interior

Figure 78

String Tunnel

Deprivation Room



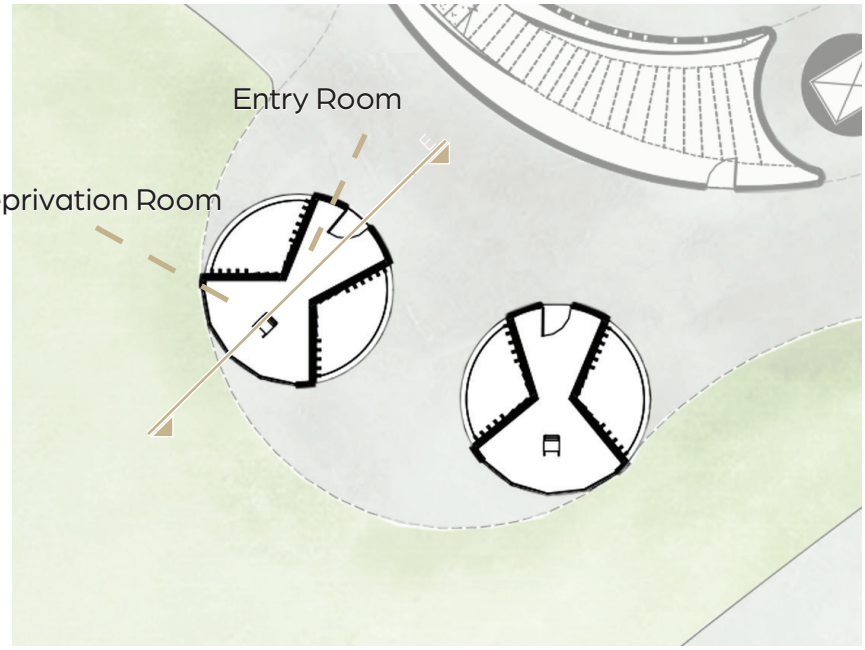


Figure 79

– The Deprivation Room focuses on the overload of senses than quickly transitioning into the deprivation of them. To effectively 'kick' the mind into a place of self-reflection by rapid isolation leaving the user solely with their thoughts.

– The Room is fitted with speakers that relays outside noise into the space this combined with the large window in front of the user, creates a focus on their surroundings. That is then quickly taken away through the use of electro-chromatic glass to blur the view as the speakers shut of leaving the user looking inward.

– The beginning of the deprivation experience hyper focuses the user on the surroundings create a profound connection to the site exclusive to this room.

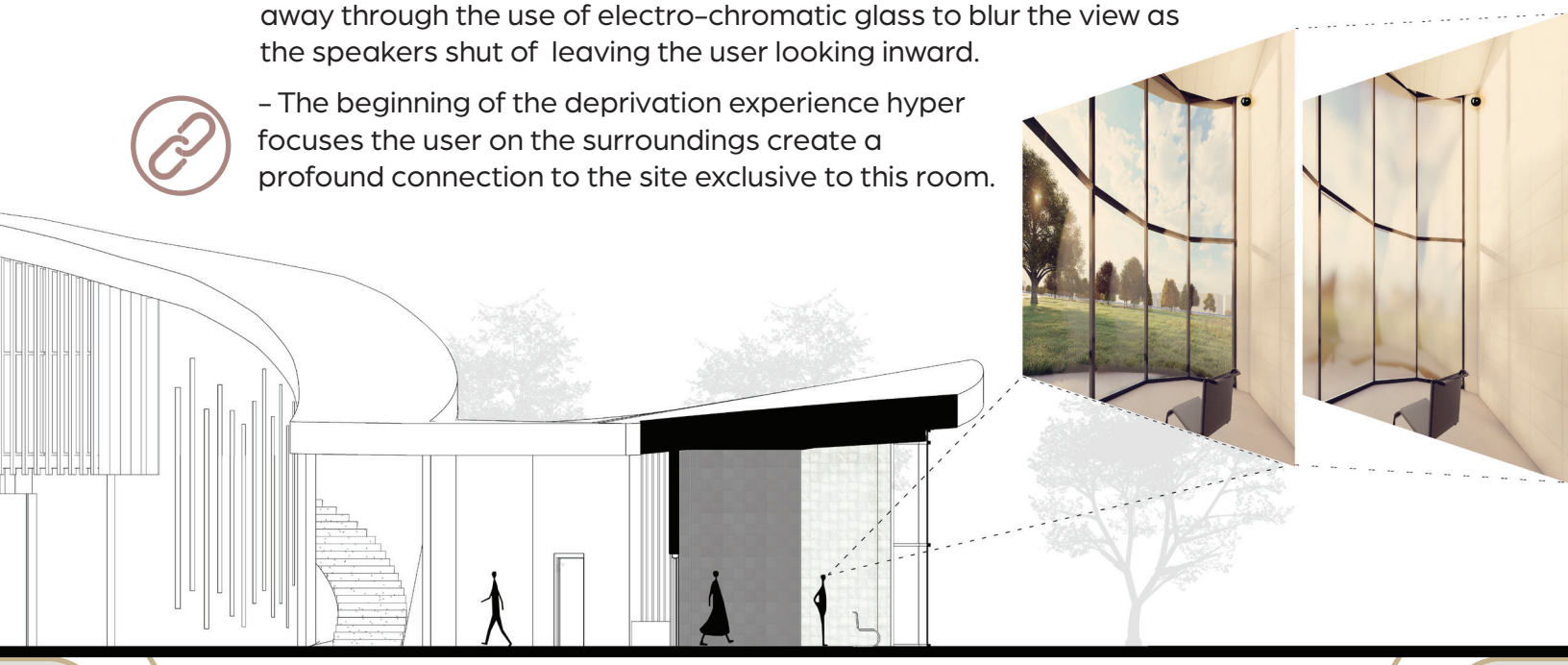
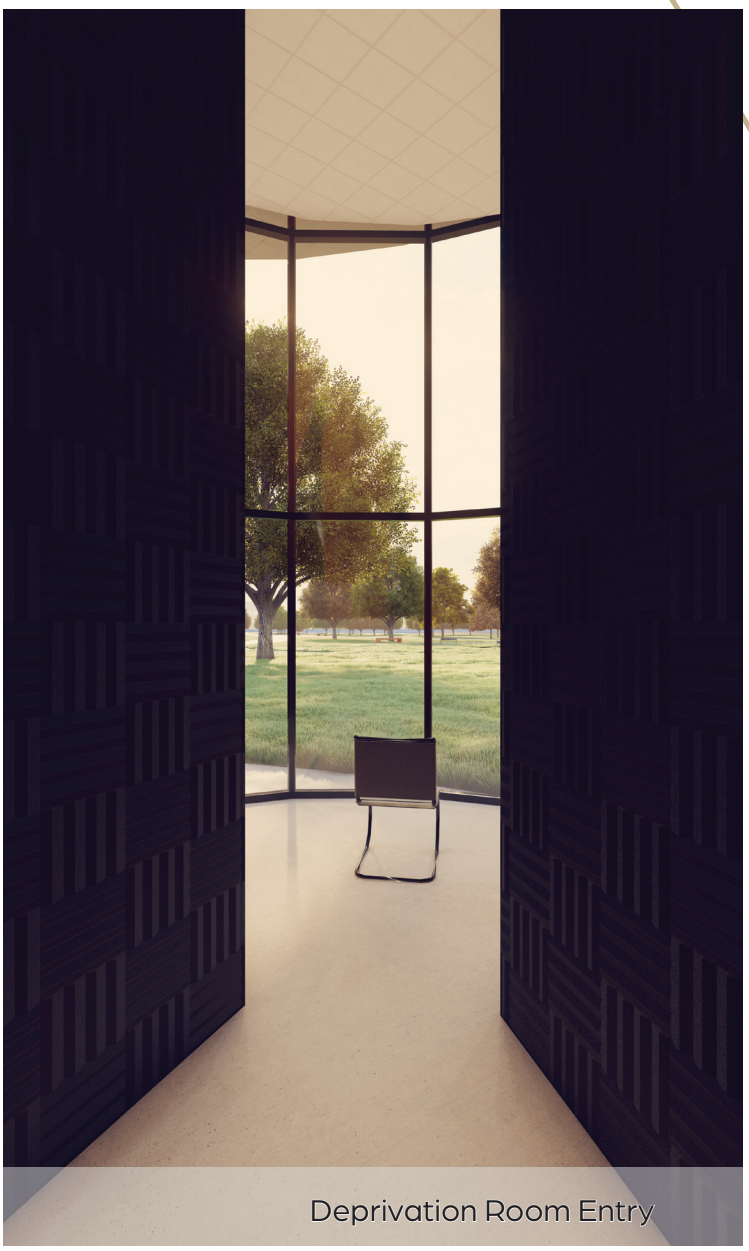


Figure 80

Section E

Deprivation Interior (Open 1)

Deprivation Interior (closed)



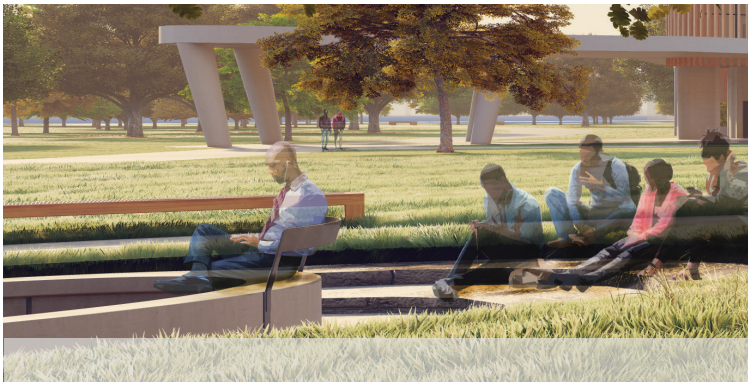
Deprivation Room Entry

Figure 81

Plaza 2 view of Deprivation rooms

Additional Features

Green Walls



Respite Seating

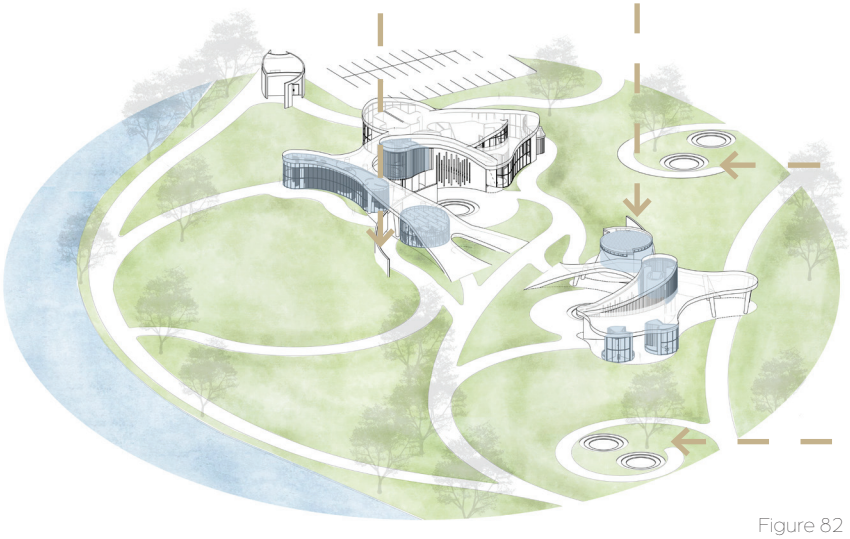


Figure 82

Response to Site and Context

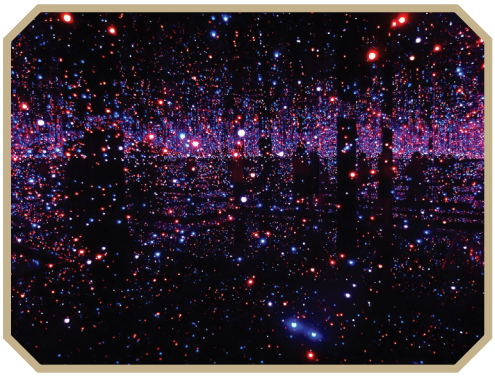
The design responds to the site and context in many ways, through adherence to both natural and man–made elements. Respite park's pavilion structures being located in the north of the site to avoid potential flooding to the south. As well the pavilion structures are connected through a planted green roof that helps mitigate the loss of green space due to the development. The design also focuses on the context of the project, as depicted, the surrounding area has many functions that can provide a variety of visors. Creating a design that is open to all visitors and welcomes them to the park with a variety of choices in how to approach healing. With easy to find entrances to the sight via car in the northern parking lot, or the connection to the pedestrian bridge that could help patient and families from the medical hub, and to the south where the park connects to the Charles River walk.

Overall respite park performs well in its connection to its context to help draw in visitors and respects existing site elements to not rid downtown Boston of one of its green spaces.

Response to Typological and Precedent Research

The Typological research that was done was originally for more similarly type project but as the design develop, the change to a public park with therapeutic experience pavilions to focus more on other research and the premise. The case studies chosen for precedent research still provide a benefit as they are more modern health facilities that provide a current baseline on what innovative and effective healing architectural environments, look, feel, and do to achieve a comfortable space. For example the Bridgdpoint therapy center creates a unique space that connects community and physical therapy through interwoven uses throughout the building. Also the Nuuk psychiatric hospital has a distinct connection to nature that envelopes the build and becomes it define feature. Overall the precedent studies were chosen for there current application of a healing environment so with the Respite Park the design could push these ideas even further.

Also the inclusion of Tomas Saraceno's and Yayoi Kusama's surreal installation art , provided a look on what an interactive experience looks and feels like to the viewer. Inspiring and showing how interactive designed space can help a person reach a point discovery. Leading to better design experiences for the pavilions themselves.



Response to Goals and Project Emphasis

With Respite park the design goals were the priority as they are derived from the research, on cognitive behavioral therapy, sensory design, and the precedent studies. As well as the pre-established emphasis that included many crossover with the goals. The design of Respite Park answers the goals of approachability, effective healing environment, connection, innovation, interaction, and sustainability.

Approachability

Respite park tackles approachability in many ways Through its choice oriented design that focus on the free flow layout of the pavilion clusters, therapeutic experiences design both for groups and individuals, and its connection to nature that encourages a break from the urban environment. All creating a more approachable site where users are encouraged to engage with all aspects of the park, where what they do and how the begin healing is their choice.

Healing Environment

The healing environment goal was adopted by the entire project with a holistic approach that ranges from Respite Park's connection to nature, through green walls the extend out in to the park, and designed therapeutic experiences that push the boundaries of modern therapy. Each pavilion was designed to highlight a way of healing by creating experiences far outside the normal reality to create the distance needed for self-reflection. While the hyper-focused interactive sensory elements help the mind achieve that same distance mentally, to help one find false cognition and get rid of them.

Response to Goals and Project Emphasis

Connection

Respite park finds it strength in its connection by connecting the communities that surround it to area that can provide an open and easier route to cognitive behavioral therapy. The site's natural connections to the city of Boston works in Respite Park's favor. As a strong river walk connection draws people from the southern residential neighborhood and train station up into the site. While to the north the pedestrian bridge welcome visitors form the medical hub to the east. Respite park also provides a unique connection to others and oneself through the therapeutic experiences that focus on finding a connection to ones cognitions as they disconnect from reality. While providing an indirect connection to the people around the park as they view pavilions in use creating a large pool of shared connected experience.

Interaction

The interaction of Respite Park shines primarily in the form of the therapeutic pavilions that provide a direct connection to the architecture through the varied uses. Such as, the timed breathing facade, the light field, the acoustic strings, and a moving wall of rain. Respite Park also provides a interaction with the other visitors as providing similar experiences increase social interaction that can lead to many beneficial healing interactions. Completing the goal of interaction is partially tied to the goal of innovation. As the interaction with in the pavilions rely on innovative technologies and thoughts of experience.

Response to Goals and Project Emphasis

Innovation

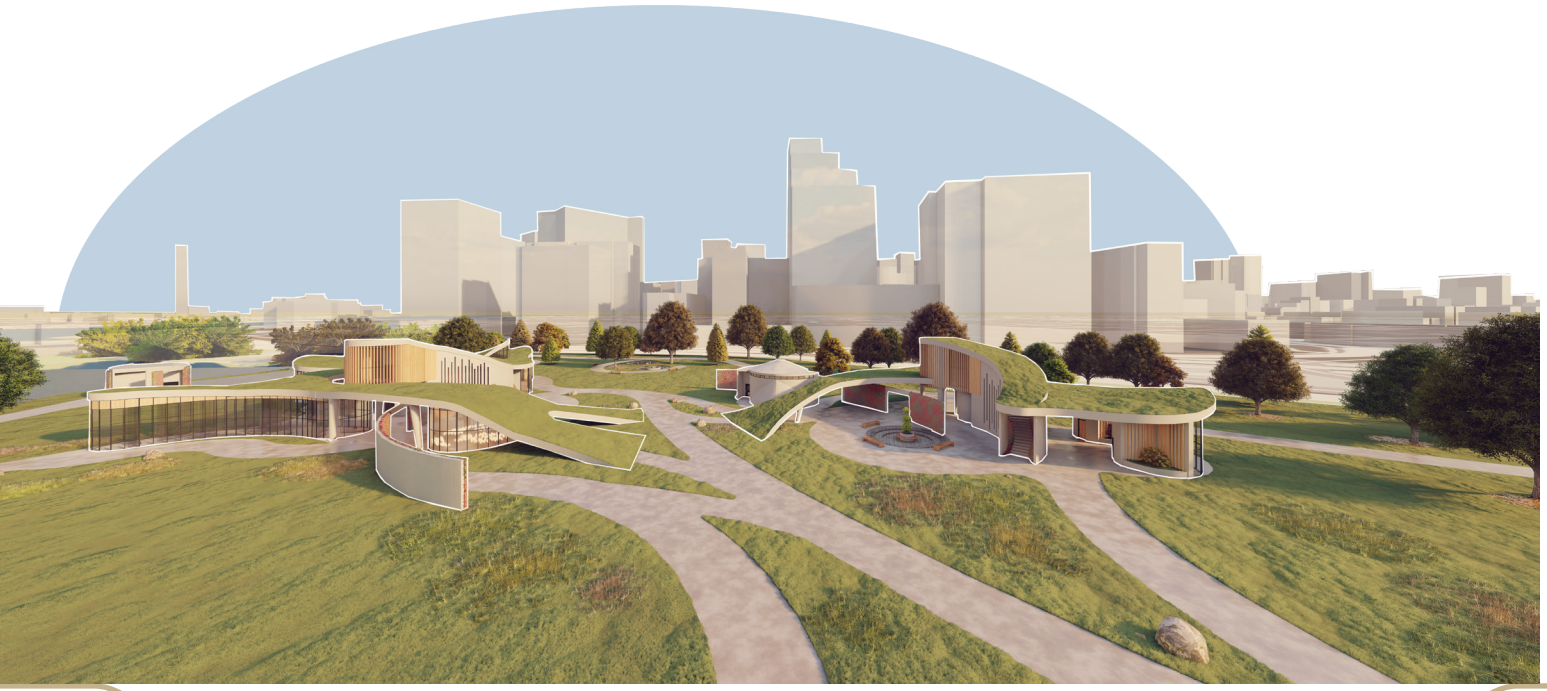
Respite parks achieves it's innovation goal , again like many other goals, through the experiences provided with in the pavilions. As these experiences push the boundaries on what is a normal experience. Each pavilion also uses newer technology in innovative ways like, timing facade movements with the breathing room, the use electro-chromatic glass and speakers to amplify and isolated in the deprivation room, the interactive playful lights in the light field, the movement sensing rain room, and the innovative hanging of acoustic elements in the string room. All to create a space unlike anything existing to today to help innovate therapy as a profession and change existing thoughts on seeking help when needed.

Sustainability

Lastly sustainability as a goal, Respite Park maybe fails to hit its max potential in regards to this goal. The basis of ideas on sustainability were thought of when designing elements such as, the community building and several pavilions providing access to proper daylighting practices. There is also a planted green roof which helps with the displacement of green area through the projects development, as keeping as much green space in urban environment is crucial. The pavilions also attempt to set up a good basis for sustainable ideas, like the rain room both having a water collection system and water recycling system to keep water flowing, Lastly including warping green walls that connect people directly to the sites natural elements and provides better air quality through there inclusion. With this basic idea of sustainable thought as a foundation for project, pushing it past this would be an option in the future.

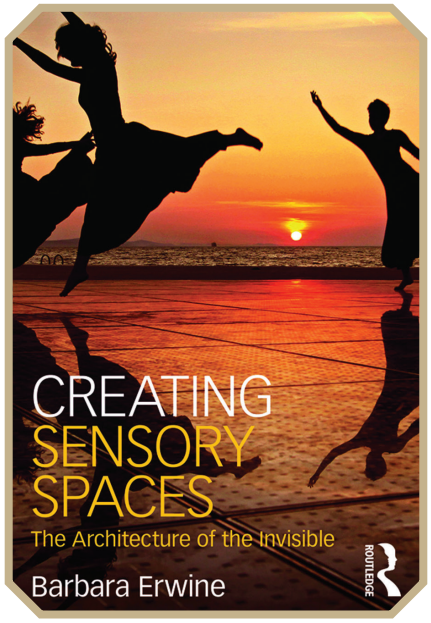
Response to Goals and Project Emphasis

The design of Respite Park put the goals in the forefront, that resulted in the creation of five therapeutic experience that each individually hit three or more goals, resulting in a successful design from the research. The goals were also achieved by the supplementary spaces like the community building and green wall areas each help to assist goal achievement. Respite park stands as an approachable, innovative, interactive healing experience that is grounded in connections to the community and it's sustainable ideas.



Critique of applied research methods

The research methods applied to this project are mostly quantitative and qualitative data that was gather on specific topics to establish a base for creating experimental experiences that wish to change human perception. The preliminary data gathered on cognitive behavioral therapy help establish that the principles discussed in CBT are both effective and wide ranging so that it can applied to architecture. Further data on sensory and interactive design was needed to apply these ideas of cognitive behavioral therapy to architecture. With all the research done a strong set of tools to reference when designing the therapeutic experience. The only thing that could have changed and been more effective would be a built prototype of the designs of the experience and see a human reaction to the space proposed, and judge potential changes there. Overall the research done allow conclusion to be drawn on how architecture can be used as tool in therapy.



Conclusion

Respite Park was created to find out an answer to the question, can architecture become a primary tool for cognitive behavioral therapy? Through research on cognitive behavioral therapy, sensory design, and interactive art installation, the basis on how to approach answering this question was formed. Combing the ideas displayed in the research articles, a set of goals to guide and judge the project was created. These goals were achieved by the design in a variety of ways through Respite Park's experiential based therapeutic spaces. That are designed to create a healing experiences for all using interactive and innovative sensory architecture. So to put it briefly Respite Park does begin to answer the question of can architecture the primary tool in cognitive behavioral therapy. Yes architecture can become this tool in cognitive behavioral therapy, as the experiences create a individual or group dialog with oneself and allows the opportunity to remove negative cognitions, which is at its core the premise of cognitive behavioral therapy.

Digital Presentation

Respite Park

Changing Therapy with Community and Architecture

"Architecture is a social activity that has to do with some sort of communication or places of interaction, and that to change the environment is to change behavior."

- Thom Mayne, Architect

Presentation

The Premise

The Change

The Who

Research

Presentation

"...feelings and emotional response are predicted on thoughts that are derived from cognitions, or the ways one perceives a situation"

– Robert Schachter, *Licensed Psycholgist NYC*

Cognitve Behavioral Therapy

"... is a form of psychological treatment that has been demonstrated to be effective for a range of problems including depression, anxiety disorders, alcohol and drug use problems, marital problems, eating disorders, and severe mental illness."

APA Divison 12, Society of Clinical Psycology

"CBT is an approach for which there is ample scientific evidence that the methods that have been developed actually produce change."

APA Divison 12, Society of Clinical Psycology

Presentation

Cognitve Behavioral Therapy

1924
Unlearning of Fear

1950's
Behavioral Therapy

1950's
Cognitive Therapy

1980's
Cognitive Behavioral Therapy

Cognitve Behavioral Therapy

"Observation and analysis provide emotional distence that allows for realistic assesment."

"The concept of replacing a thought is the most important."

– Robert Schachter, *Licensed Psychologist NYC*

Cognitve Behavioral Therapy

"The group os a microcosm of reality."

– Robert Schachter, *Licensed Psycholgist NYC*

Healing Architecture

Bridgepoint Active Healthcare

Healing Architecture

Bridgepoint Active Healthcare

Nuuk Psychiatric Clinic

Sensory Design

Space: The Architecture of the Invisible

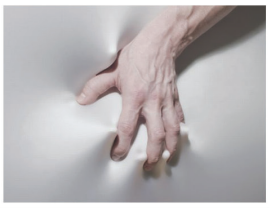
The occular centric profession is
"... prioritizing visual impact over engagement of the other senses."

– Barbara Erwine, Design and Research Consultant at UW

Light Space

"The quality and shape of light in a place sets its character. The flow of light spaces, as they change either gradually or abruptly, can draw us forward, make our hearts leap"

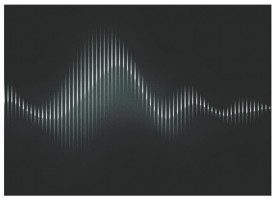
– Barbara Erwine, Design and Research Consultant at UW



Somatic Space

"We don't register a simple feeling of 'touch'. Instead, we experience an intricate combination of stimuli"

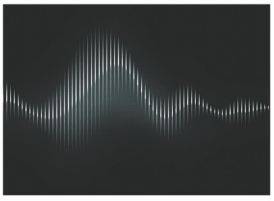
– Barbara Erwine, Design and Research Consultant at UW



Acoustic Space

"Sound may be invisible or only unconsciously perceived, but that doesn't make it any less of an architectural material than wood"

- Barbara Erwine, Design and Research Consultant at UW



Presentation

Interactive Design

Tomas Saraceno

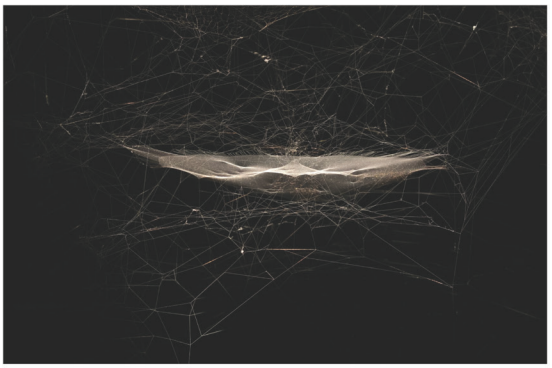
Yayoi Kusama

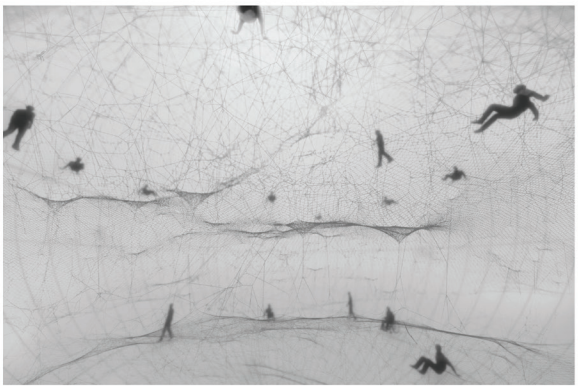
Interactive Design

Tomas Saraceno

" And they exist in what Saraceno prefers to call the Aerocene era in which interspecies-cooperation and clean air are required"

-Roberta Smith, New York Times



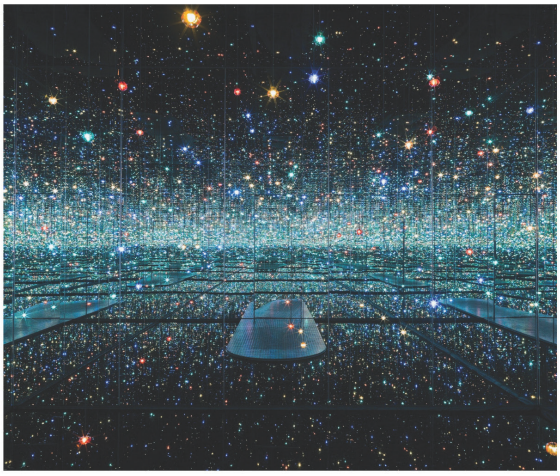


Interactive Design

" I fight pain, anxiety, and fear every day, and the only method I have found that relieved my illness is to keep creating art"

-Yayoi Kusama

Yayoi Kusama



Project Guidelines

Approachability

Healing Environment

Connection

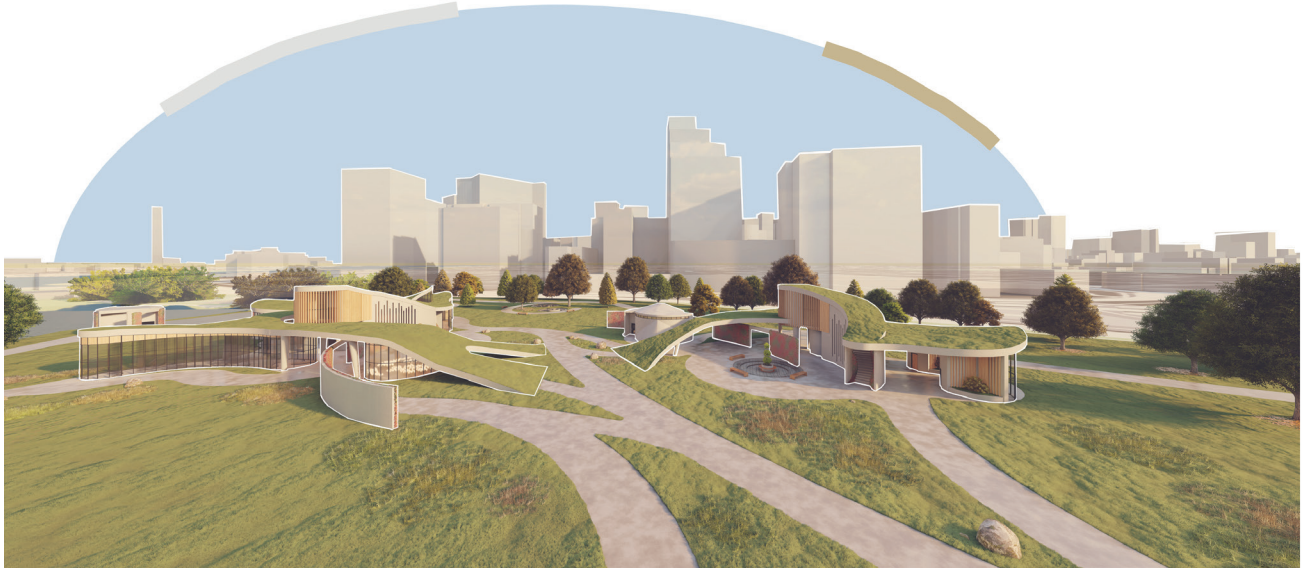
Innteraction

Innovation

Sustainablility

Design Response

Program



CHARLES RIVER
MASSACHUSETTS ROUTE 28
LONGFELLOW BRIDGE
BOSTON MA
N

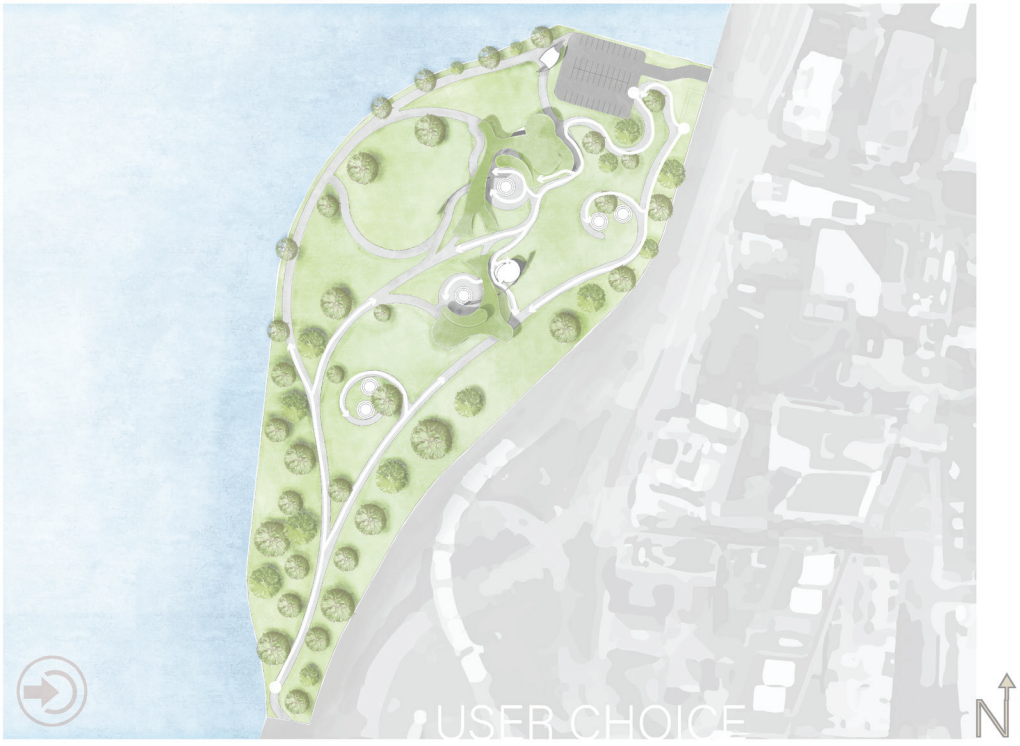
EDUCATIONAL
CHARLES RIVER
MASSACHUSETTS ROUTE 28
LONGFELLOW BRIDGE
BOSTON MA
N

CHARLES RIVER
MASSACHUSETTS ROUTE 28
LONGFELLOW BRIDGE
BOSTON MA
RESIDENTIAL
N

CHARLES RIVER
MASSACHUSETTS ROUTE 28
LONGFELLOW BRIDGE
BOSTON MA
CIVIC
N

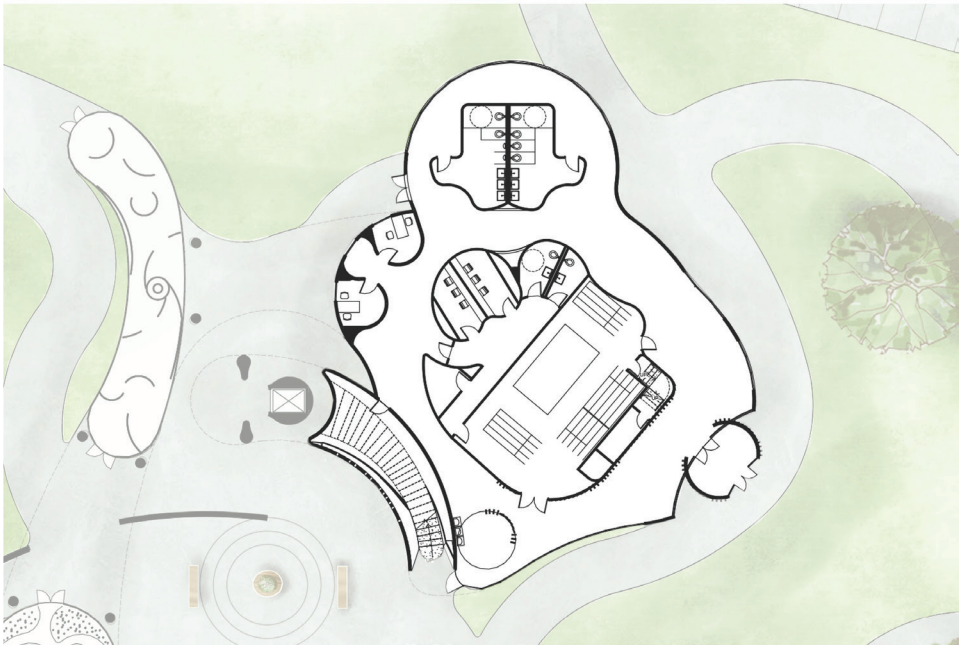
MEDICAL
CHARLES RIVER
LONGFELLOW BRIDGE
BOSTON MA
N

Maintenance Building
Parking
Pedestrian Bridge Connection
Community Building
Improved River Connection
Pavilion Cluster 1
Respite Seating
Pavilion Cluster 2
Respite Seating
SITE PLAN
River Walk Connection
N

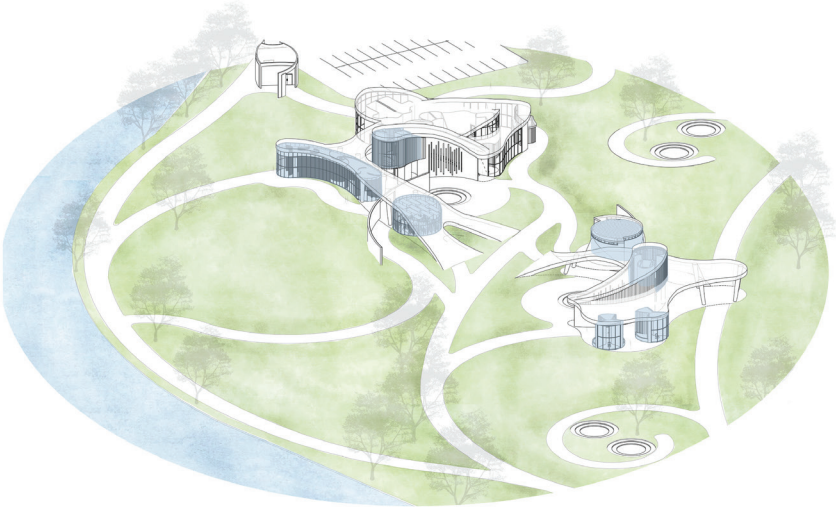

USER CHOICE
N

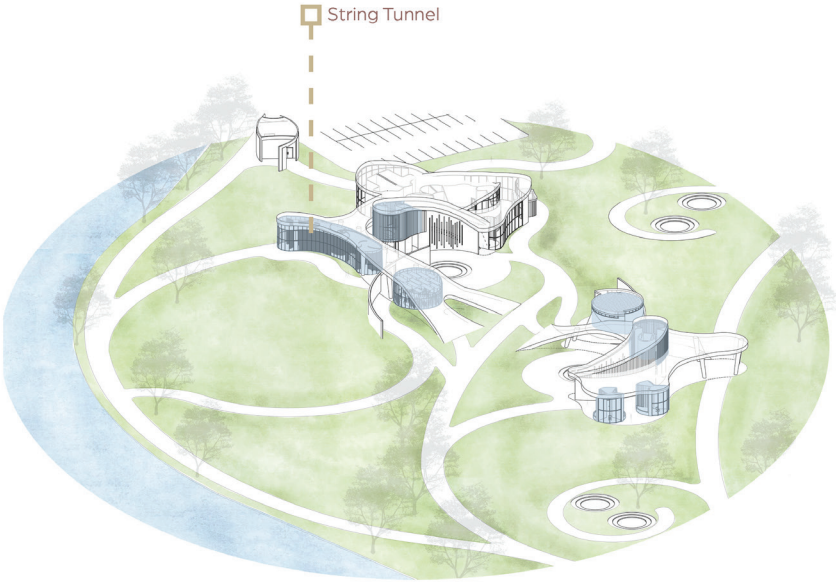
KEY
1 Entry
2 Infocenter
3 Blackbox Theater
4 Green Room
5 Storage
6 Dressing Room
7 Offices
8 Mechanical
9 Restrooms
10 Lighting Room
11 String Room
12 Breathing Room
13 Light Field
14 Rain Room
15 Deprivation Room
16 Green Wall
FLOOR PLAN
N

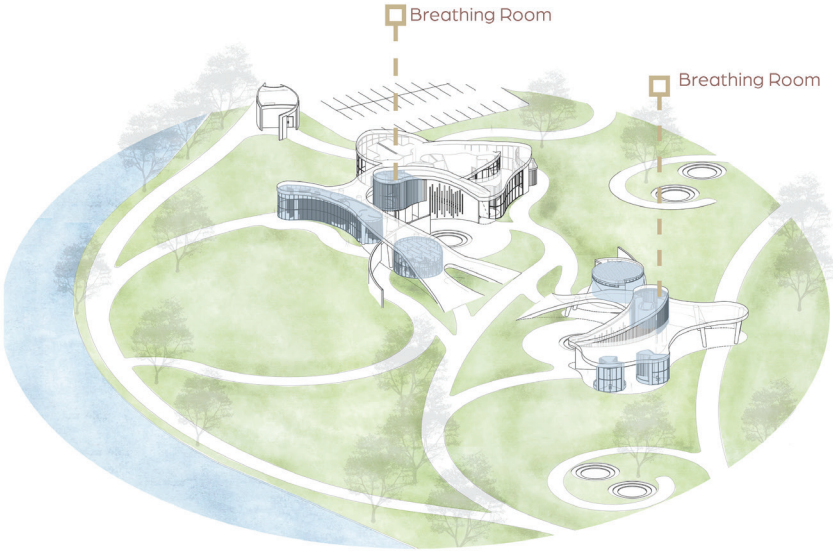
Community Building

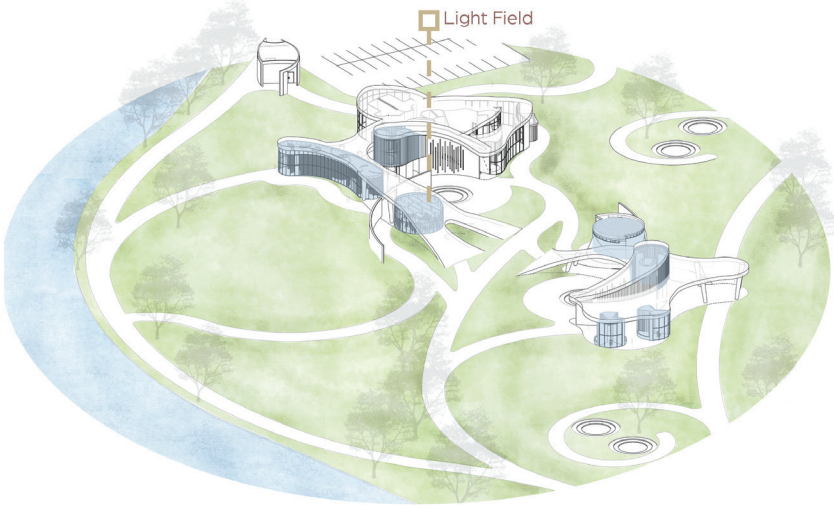


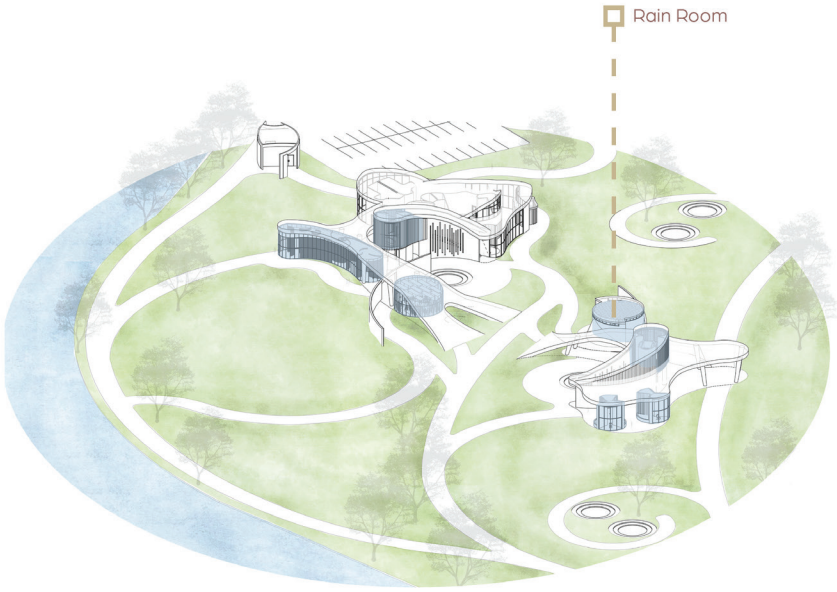
Therapeutic Experiences

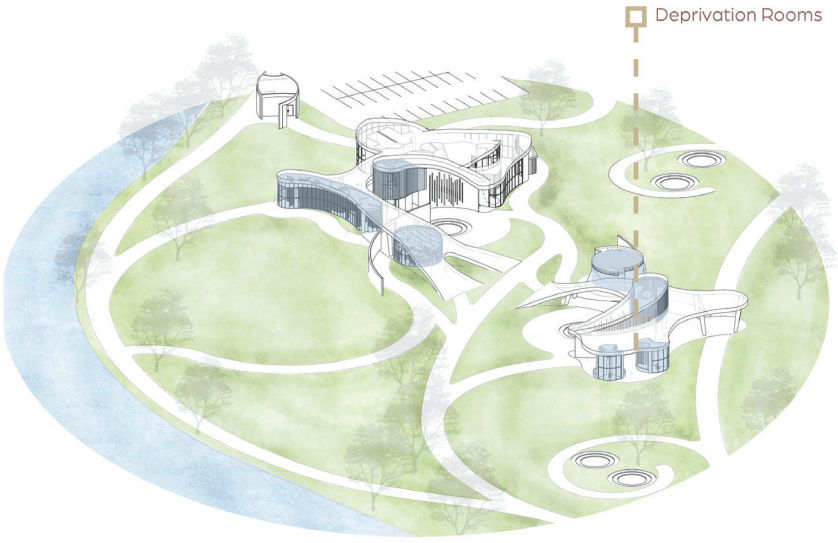




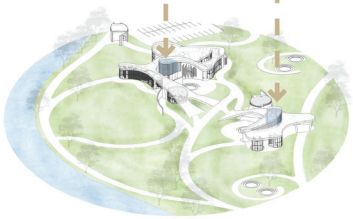

Breathing Room
Breathing Room

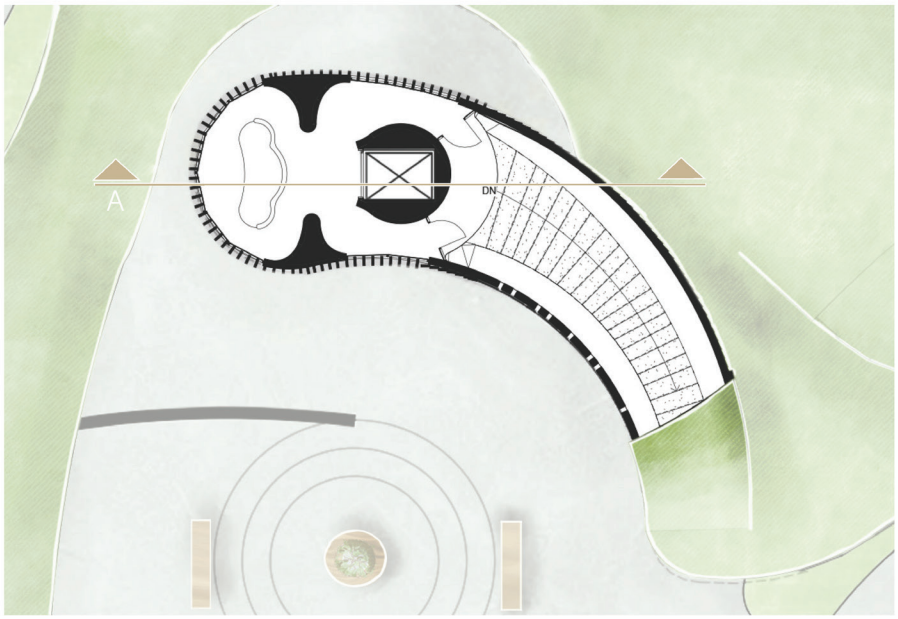

Light Field


Rain Room

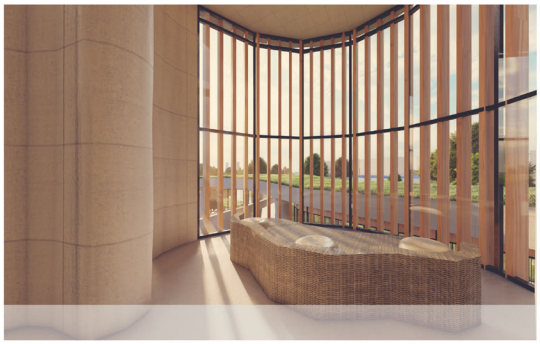

Deprivation Rooms

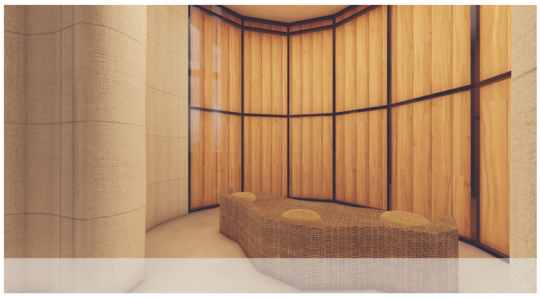
Breathing Room



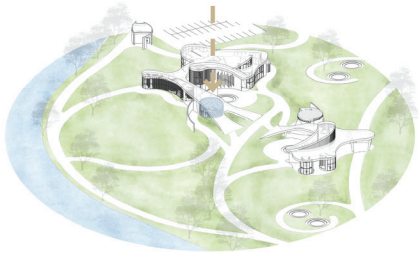


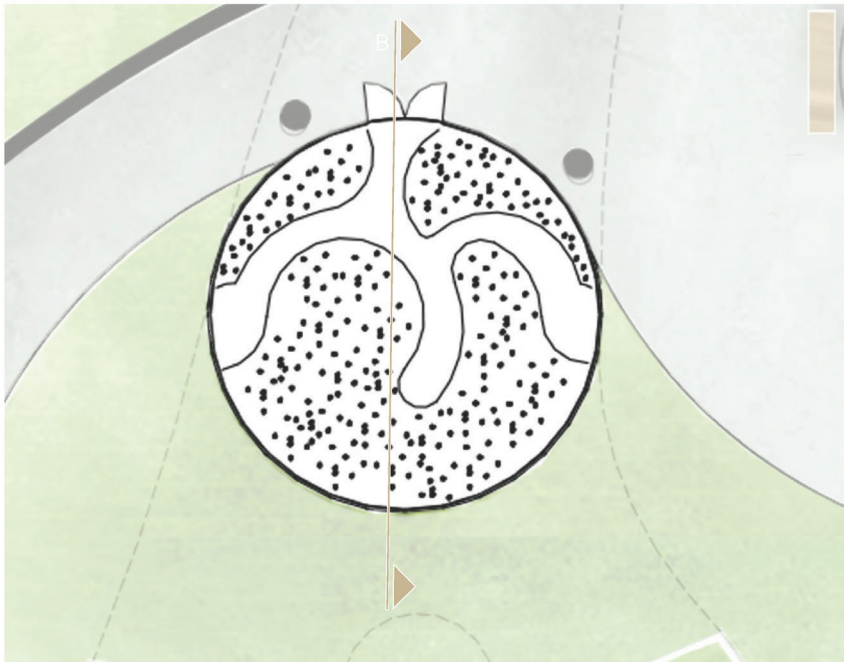
Breathing Room



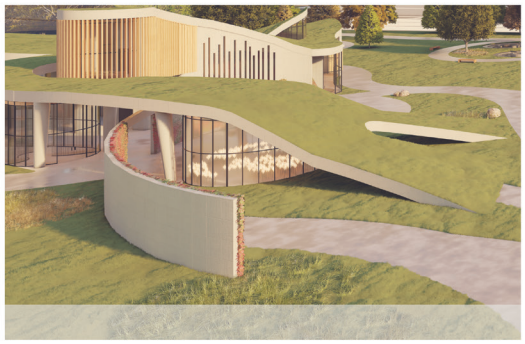


Light Field

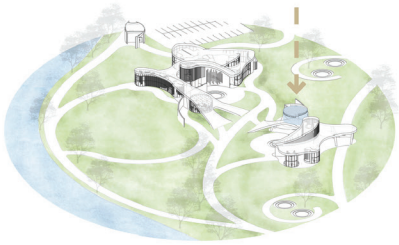


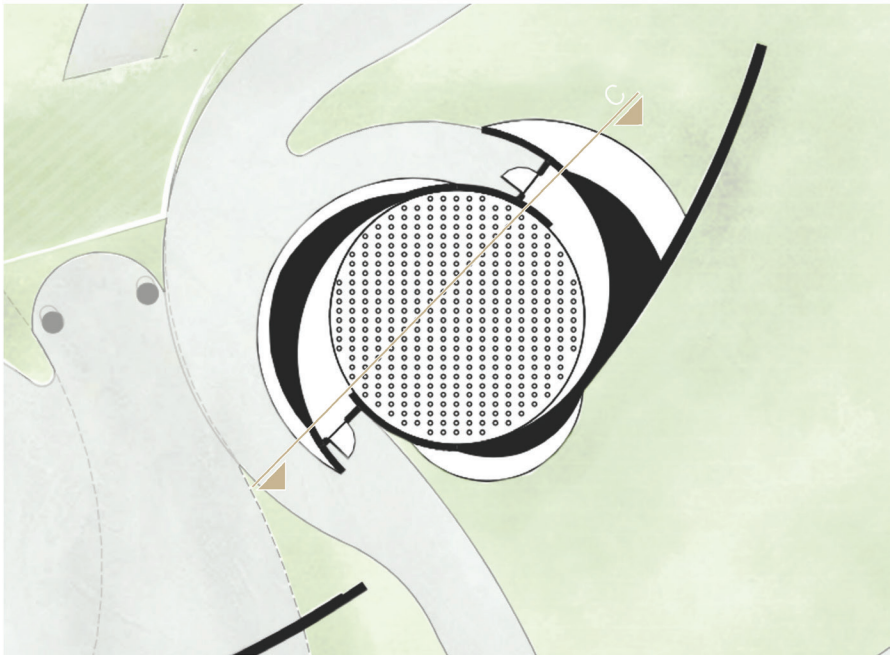


Light Field

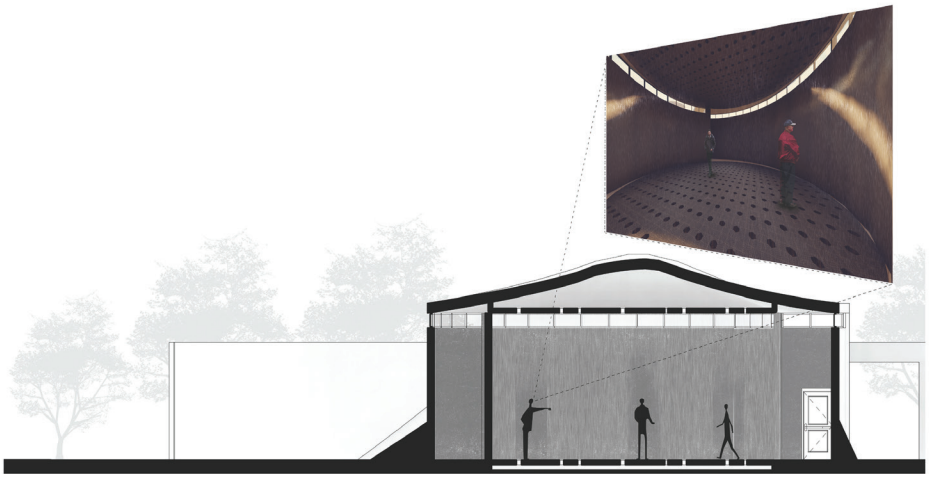


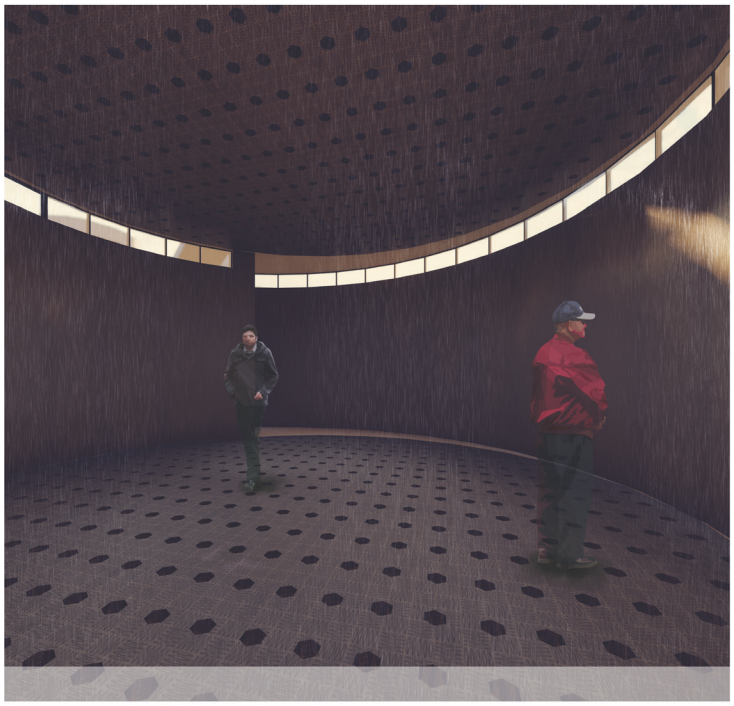
Rain Room



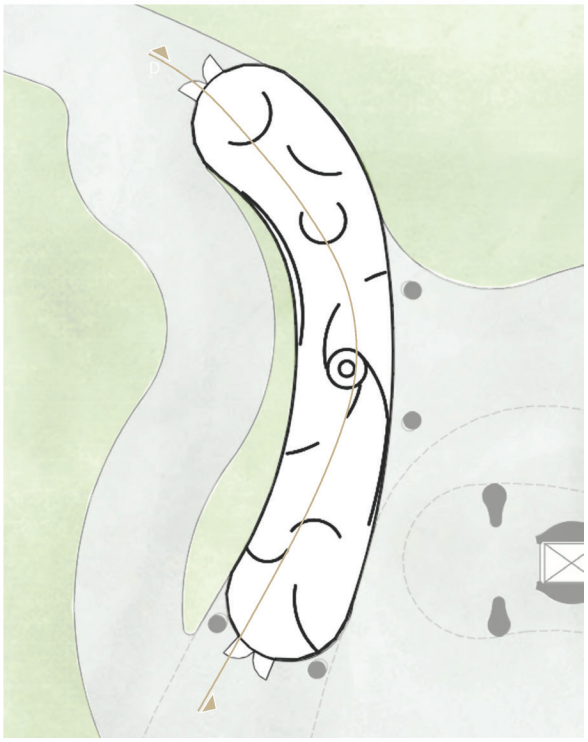


Rain Room

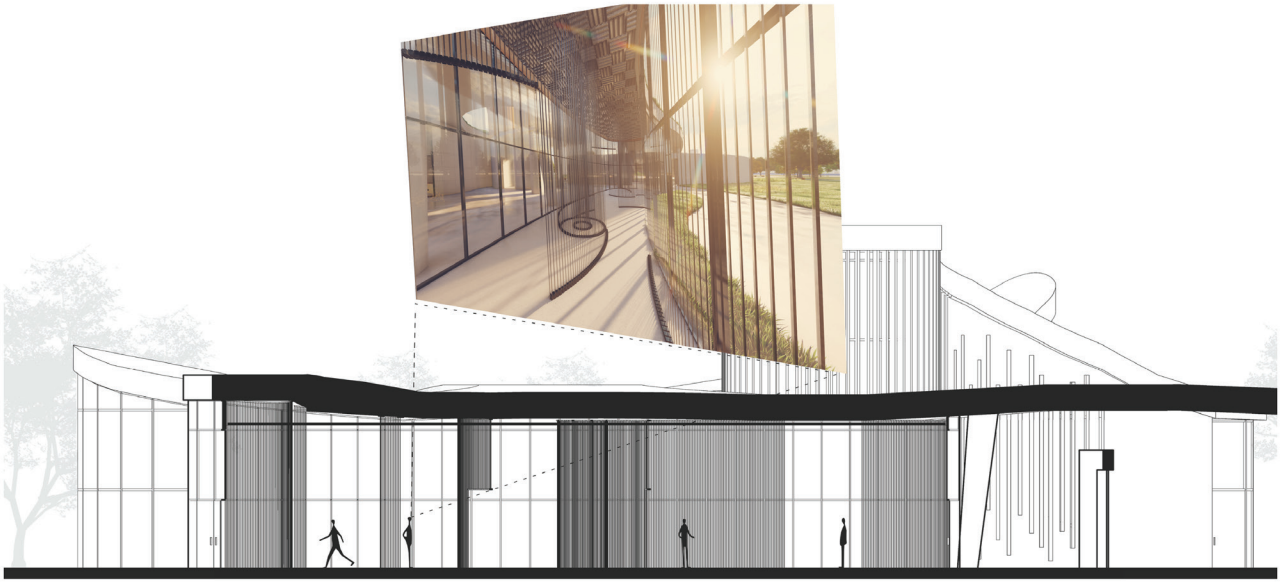


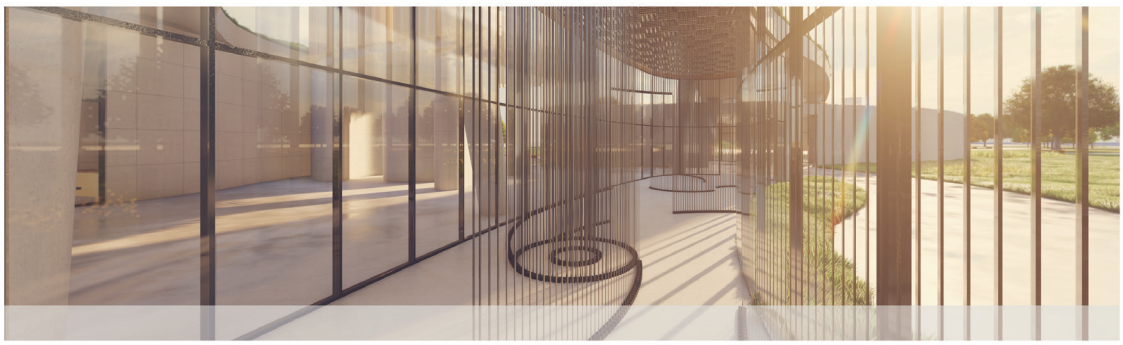


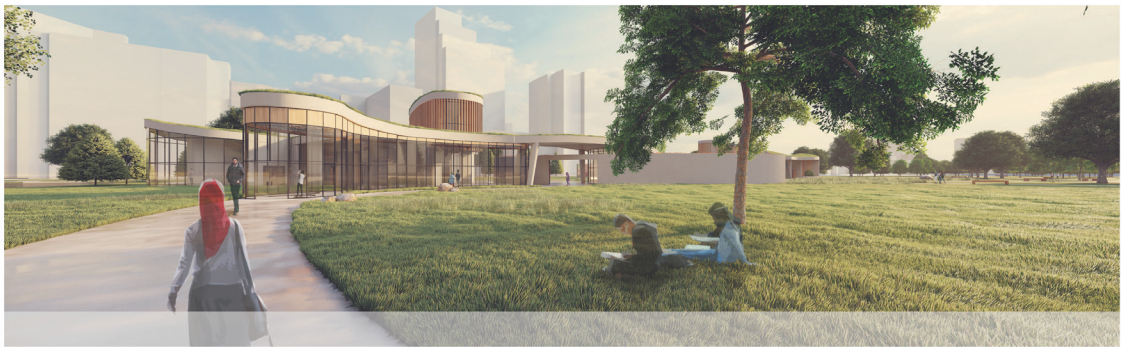
String Tunnel



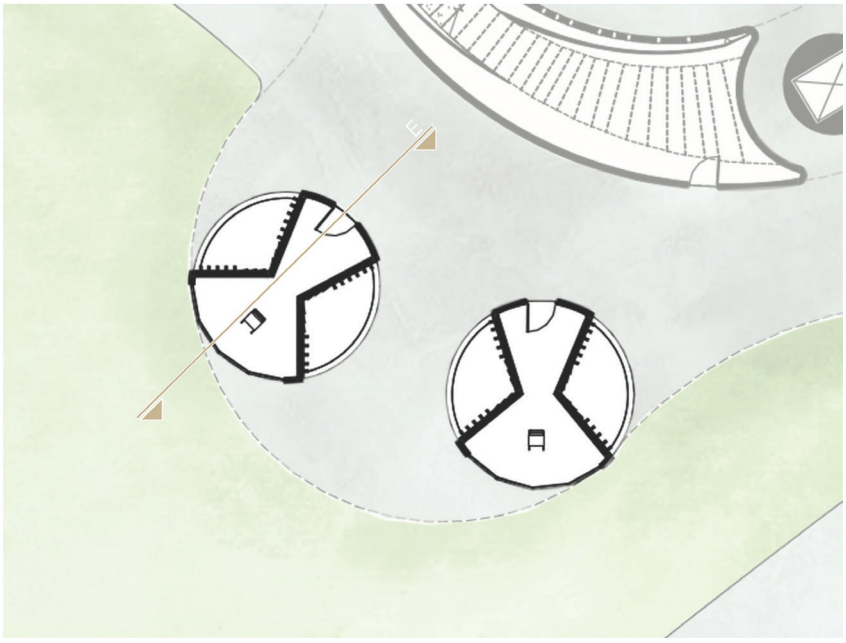
String Tunnel



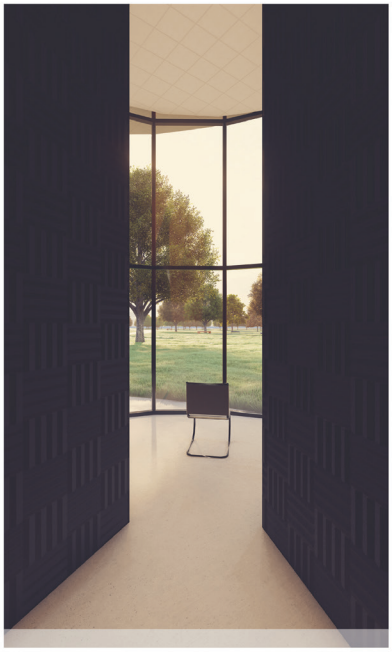




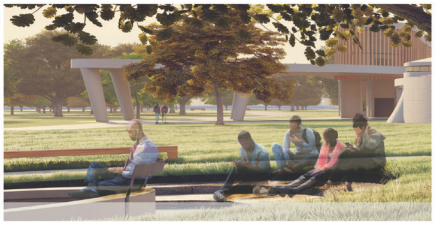
Deprivation Room

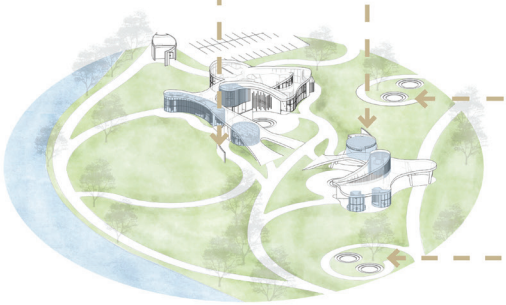


Deprivation Room

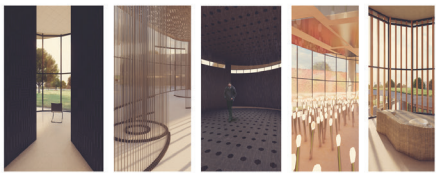


Green Walls

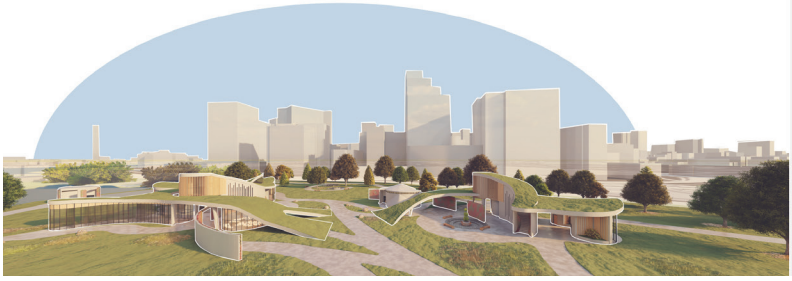




Respite Seating



Questions and Feedback



Project Installation

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Appendix

PERSONAL IDENTIFICATION

JARED M. HALLMAN

Hometown | Elk River, Minnesota

[redacted]

PREVIOUS STUDIO EXPERIENCE

2ND YEAR

Fall: Cindy Urness
Meditation Retreat | Fargo, North Dakota
Site response and conceptual design
Boat House | Jamestown, North Dakota
Site response and program development

Spring: Charlott Greub
Small Dwelling | Marfa, Texas
Design on small scale, Relation to context
Mixed-use Apartments | Moorhead, Minnesota
Design with a group, Relation to context

3RD YEAR

Fall: Regin Schwaen
Visitors center | Cooperstown, North Dakota
Design for historical preservation
Art Museum | Nekoma, North Dakota
Masonry design, site development

Spring: Bakr Aly Ahmed
Home for the 21st Century | Fargo, North Dakota
Residential design for future
Steel Competition | Bismark, North Dakota
Design of civic building with community engagement

4TH YEAR

Fall: Amar Hussein
High Rise | Miami, Florida
Multi-story comprehensive mixed-use design

Spring: Kristi Hanson
Medora Master Plan | Medora, North Dakota
Master plan scale, design with nature

5TH YEAR

Fall: Lance Josal
Amtrak Bullet Train Station | Fargo, North Dakota
Urban connection, large mixed use design