



PROMOTING WELL-BEING THROUGH EMPATHETIC DESIGN

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Drexel University 2023

ACKNOWLEDGMENTS

I would like to thank my amazing advisor, Deb Ruben, for her encouragement, enthusiasm, and guidance on this project. She pushed me to shift my perspective and to go back to my research to strengthen my concept. Deb is an incredible mentor, and I am incredibly honored to have been her advisee this year.

To my mother and sister, Julia, you inspire me. You are the strongest women I know. Seeing your journey through motherhood invigorated me and my project and allowed me to understand motherhood on a deeper level.

To Kyle, your love and support throughout my time at Drexel means the world to me. I could not have done it without your encouragement.

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PROJECT INTRODUCTION



Empathetic design is a design strategy that aims to understand the lives and experiences of users through immersion and then apply that understanding of the user throughout the design process. It is a form of human-centered design that uses empathy that focuses on understanding and being aware of others' experiences. Empathetic design is the process of projecting into another person to understand them fully.

This thesis explores how to incorporate empathetic design practices to promote well-being. The project is grounded in concepts of comfort, connection, and belonging.

These ideas led to the design of a mother's center called The Nest. The Nest is a community center for mothers. It is a nurturing environment for mothers that aims to bring mothers together in a healing environment that gives them space to focus on their well-being.



See their world



Connect with users

EMPATHETIC DESIGN



Understand their
feelings



Communicate your
understanding

WHAT IS EMPATHETIC DESIGN?



DISCOVERY

Entering and observing the user's world.



IMMERSION

Wandering around in the user's world to understand.



CONNECTION

Resonating with the user to achieve emotional resonance and find meaning.



DETACHMENT

Leaving the user's world to implement what was learned and design with the user's perspective in mind.

HOW CAN EMPATHETIC SPACES PROMOTE WELL-BEING?

CONNECTION

When people connect and engage with each other it fosters and sustains communities and cultural identities. The bonding of people and place improves well-being by allowing people to feel supported, cherished, and valued by others.

COMFORT

Places that people are attached to become a safe haven where people can retreat to and gain emotional and physical relief, which promotes well-being.

BELONGING

Being part of a community can give a sense of purpose, belonging, and security. By understanding the user designers can create connected communities with strong connections built on trust and support.



LITERATURE REVIEW

Introduction

The Butaro District of Rwanda was one of the last two districts in the country with no doctor or hospital in 2008. This spurred the Rwandan Ministry of Health and Partners In Health to commission MASS Design Group to build a 150-bed hospital with inpatient and outpatient services. The primary architect Michael Murphy learned about the problems hospitals were causing their inhabitants as he immersed himself in the community and the country's health centers. Murphy says he wanted to create a building that healed. Murphy learned that interior hallways made people sicker by spreading airborne disease, so he flipped the hallways outside. Mechanical systems rarely worked, so he designed a hospital with natural ventilation. Views of nature can radically improve health outcomes, so Murphy gave every bed a view of nature. Through layout, patient and staff flow, and natural ventilation, the Butaro Hospital



Figure 1 Butaro District Hospital

design addressed significant health problems. By understanding, speaking with, and learning local techniques, MASS Design Group was able to use the regional practices and the local workforce's skills to build a hospital that healed patients and the surrounding community after the Rwandan genocide. They trained and hired thousands of locals to help excavate, construct, and oversee the project. MASS Design Group practiced empathy in the design of the Butaro Hospital by understanding the users' needs and skills and utilizing them in the design through materiality and layout. This project is an excellent example of how empathy--understanding the lives and experiences of others—can be used to improve design outcomes for health and wellbeing. This literature review will discuss several aspects of empathetic design, specifically in relation to issues of wellbeing.

Empathy and Well-being

Well-being is commonly understood as a holistic concept that includes physical, mental, emotional, and social health and happiness. Seligman measures well-being in five ways, defined as the PERMA model:

- Positive emotion
- Engagement
- Relationships
- Meaning
- Achievement

This model's elements are measured both subjectively and objectively to determine well-being. According to Seligman, positive emotions include joy, hope, interest, compassion, pride, love, amusement, and gratitude. Engagement is the loss of self-consciousness and the absorption into an act. The relationships Seligman refers to in the PERMA model refer to feeling supported, cherished, and valued by others. Meaning in this model comes when we belong or serve something greater than ourselves. Seligman says achievement comes with a sense of accomplishment, and perseverance allows people to attain goals.

Grigoriou says that well-being is when there is a feeling of wellness and happiness in mind, body, and spirit. They note that well-being is affected by physical, emotional, and interaction issues and say that wellness occurs when there is clarity and ease in these aspects of one's life. Grigoriou notes that well-being is an experience, so an interior space can support well-being, but not provide it. Empathetic design draws upon these understandings of well-being to support the communities they serve.

Empathetic Design

The word empathy is derived from the German word *Einfühlung*, meaning "in feeling" and refers to "an act of projecting into another person to understand them

fully," according to Grigoriou. Van der Ryn sees human-centered design as the starting point for empathetic design. He says human-centered design "must consider the needs of the end user, including physical and emotional health, and the connection to others and nature." Kouprie and Sleeswijk Visser say that empathetic design is when designers look to understand the lives and experiences of users to ensure that it meets the user's needs.



Figure 2 Sympathy vs. Empathy

Denson notes that scientists have begun to understand how humans empathize and how it shapes human nature in recent years. Empathy differs from sympathy according to Kouprie and Visser. They say sympathy is when you identify with the other and are concerned for their well-being, whereas empathy is understanding the other person. Lipps describes sympathy as becoming and empathy as staying beside. In figure 2, the viewer identifies and becomes the acrobat when sympathizing and staying beside with a deep understanding when empathizing. Kopec and Denson suggest that understanding rather than relating to the

user is more important to design. They say that in empathetic design, shadowing the user is an important tool for understanding their experience.

Koskinen and Battarbee note that there is "an imaginative projection onto another person's situation" in empathetic design. They say that in empathetic design, the designer relates to the user through an emotional connection so they can understand the user's situation fully. Kouprie and Visser define three main steps required for empathetic design: 1) research, where designers are immersed in the user's perspective; 2) communication, where the designer steps back and allows the users to communicate their needs; and 3) ideation, where the designer takes all of this information to create a concise design that meets all programmatic needs. These stages allow the user to feel they belong in the empathetic space. Kouprie and Visser say that in empathetic design, the empathizer, or designer, is stepping into the empathee's life when looking for a deep understanding and out of the empathee's life when looking to take knowledgeable action.

Kopec and Denson suggest that as a participatory design practice, empathetic design allows users to engage in the design process to make the project fit their needs. The users are the experts of their lived experiences, and designers can learn from them in their aim to create a space where they fit in. By involving users in empathetic

design practices, designers allow users to feel a sense of belonging.

Belonging

Baumeister and Leary identified that belonging is a universal human need that is ingrained in us. Allen suggests that belonging is a perception people have regarding their social connections or places. We experience a sense of belonging when we feel deeply connected with social groups, places, or experiences, according to Allen. Sensory experiences can also contribute to a feel of belonging. Allen notes that scents, textures, and sounds can link us to a place or experience where we feel we belong and trigger a sense of belonging.

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Kopec and Waxman argue that people are looking to be part of a connected community with strong connections built on trust and support. This is because being part of a community can give a sense of purpose, belonging, and security. Kopec and Waxman state that strong community bonds can help people live less stressful lives

because they can rely on others for support. This allows people to handle stressful situations better and improves their overall well-being. Jacobs found that when cities are designed to increase social interaction, people feel safer and are less likely to move out of the community because of the sense of belonging they have in their communities. Waxman says that successful spaces are alterable by their inhabitants, which allows users to feel comfortable and like they belong in the space. Waxman encourages designers to consider how to encourage connection and allow for casual encounters with others in their community. She believes that spaces that encourage chance encounters enhance the users' well-being. This type of connection can increase users' sense of belonging and comfort.

Comfort

Waxman notes that it is important not to over-generalize the inhabitant's needs. She says that designers should make spaces that fit each location's climate, culture, and history. According to Waxman, when designers genuinely understand the characteristics of a place, creating a comfortable space becomes more manageable.

Manzo and Devine-Wright say that when people can control their surroundings, they feel more secure. Waxman says privacy and territorialization allow people to have more control of their surroundings,

whether that is spatial, visual, auditory, or informational. Claiming spaces on a short- and long-term basis allows people to territorialize their spaces. Wise suggests that people create territories by accumulating objects and experiences that draw on one another to create a space of comfort. Control or claiming spaces, can help form place attachment, an emotional bond that forms between people and their surroundings. These attachments create meaning, inform people's identities, and promote community.

When people connect with a place, they start to feel like they are part of the place, and their identity becomes attached to that place. This is a type of bonding that is central to the human experience. Places that people are attached to are looked at as a safe haven, according to Scannell and Gifford. They note that these territories are where people can retreat to gain emotional and physical relief. When people have an attachment to the places and people around them, their quality of life is enhanced because of the sense of comfort that they give. Manzo and Devine-Wright say that strong engagement with place allows people to take ownership of space and be comfortable in that space. A home is a space of comfort. According to Wise, a home, or culture, is not simply where we come from or something from which our identity arises, it is a part of who we are. A sense of comfort and attachment to a place

shape our place-identity.

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Place Attachment and Place Identity

Our identity comprises habits that lead us to identify with specific environments. Proshansky, et al found that places, specifically those we grow up in, lead to specific attitudes, values, and beliefs that build our identity. Altman and Low note that place-identity is part of self-identity—places we identify with lead to attitudes, values, and beliefs that build our identity. Altman and Low agree that the environments we grow up in contribute significantly to self-identity and lead us to look for specific environments as we age.

Place attachment is the "bonding people and place." Altman and Low say that place attachment can give a sense of security and stimulation and link people together. According to Altman and Low, place attachment fosters and sustains communities and cultural identities. Waxman says people describe places that make their communities unique when discussing communities, they love. Seamon explains that places are where our lives unfold and our routines occur. These routines strengthen our bonds with places.

Conclusion

Denson says, "Architecture is not about geometry or aesthetics, but about affirming our existence and emotions as we interact with the material world." This is what

empathetic design aims to do. The stages of empathetic design allow the designer to create a space where the user feels a sense of comfort and belonging. These feelings can also lead to attachment to place. Empathetic design is not a prescriptive process, but rather is a framework for designers to understand their users. The deep understanding of users empathetic design fosters allow designers to create spaces that support well-being.

PRECEDENT STUDIES



Butaro District Hospital

Designer: MASS Design Group

Year: 2011

Location: Burera District, Northern Province, Rwanda

Size: 6,000 sq. m.

Program: 150-bed hospital with in and outpatient services

Clients: Rwanda Ministry of Health, Partners In Health

Users: Local residents of the rural Burera District- mostly farmers and craftsmen

Approach: A 150-bed tertiary hospital with in and outpatient services that employs natural cross-ventilation to mitigate airborne disease transmission.





Empathetic Design

- Michael Murphy attended a speech by Paul Farmer humanitarian doctor from Partners In Health (PIH). Organization that has been building medical facilities in impoverished countries such as Haiti and Rwanda. The organization did not work with architects and Murphy saw a need.
- Murphy spent six weeks working with PIH on various projects in Rwanda during a summer fellowship. The design team continued to visit and speak with community members during the design process.
- MASS Design used his experience to understand the communities feelings and meanings to understand their needs and create a space that mitigates and reduces the transmission of airborne illnesses, one of the largest problems with the current clinics in Rwanda.
- Murphy and his team worked with medical experts to create a space that understands the community's needs and uses design strategies in plan, circulation, and ventilation to solve the major design problem for the hospital.





Ways Youth Transition Hub

Designer: BENT Architecture

Year: 2020

Location: Melbourne, Australia

Program: Home and support network for children who are at risk of homelessness

Clients: Victorian Department of Health and Human Services (DHHS) for Ways (non-profit)

Users: Young people on the brink of homelessness

Approach: Create a neighborhood-like complex of accommodations and communal facilities.





Empathetic Design

- Every decision for this project was guided by the needs of those who will live here and the staff who will manage it.
- The architects got to know the client, what they were looking for, and the issues they faces at other tactilities.
- The space is trauma informed. For example, the front entry to each unit is private and has a timber bench against a wall, which allows users to join the common area, while being against a brick wall. This gives users a sense of protection and has a tactile quality.
- The center is built with well-being in mind. The dwellings improve personal well-being through the use of natural light, good ventilation and various degrees of privacy.



INTERNAL ELEVATION (SOUTH)

Lulu's Casita

A cafe where little ones can play & the parents can stay.

Name: Lulu's Casita

Location: 6 Cricket Ave, Ardmore, PA 19003

Size: 4,000+ square-foot facility

Users: children, adults, nannies

Program: Lulu's Casita is a 4000+ square foot indoor playground geared toward children aged 0-5. The casita environment has been carefully planned with a wide variety of activities so that your child can play freely in a safe and stimulating environment, simultaneously catering to the parent's needs.

Membership:

- Daily admission \$12 first child, \$8 each additional child
- Monthly Membership: \$80 per month
- Six-month Membership: \$70 per month/6 months
- Annual Membership: \$60 per month
- Dual Membership: (West Chester & Ardmore) \$85 per month

Activities: Indoor plants, kid height mirrors, mobiles, magnetic boards, children's artwork, dress-up area, talking tube, giant imagination blocks, swing, slide. The social activities encourage community, creative thinking, taking turns, sharing toys and learning how to problem solve.



Events: story time, Music Circle, Tiny Tot Dance Jam, Private Parties, Friday BYOB & Pizza Night, Park events

Materials: chalkboard, wooden paneling and stairs, LVT, foam flooring, carpet

Colors: blue foam flooring, neutral walls, and carpet

Furniture: minimal, some sofas and chairs in the reading nook, tables and chairs in the café area.

What's working well: the sense of community, different play areas, consideration of the user's needs

What could be improved: the space is not a designed space, so it could use more of a cohesive look, but it still functions well.

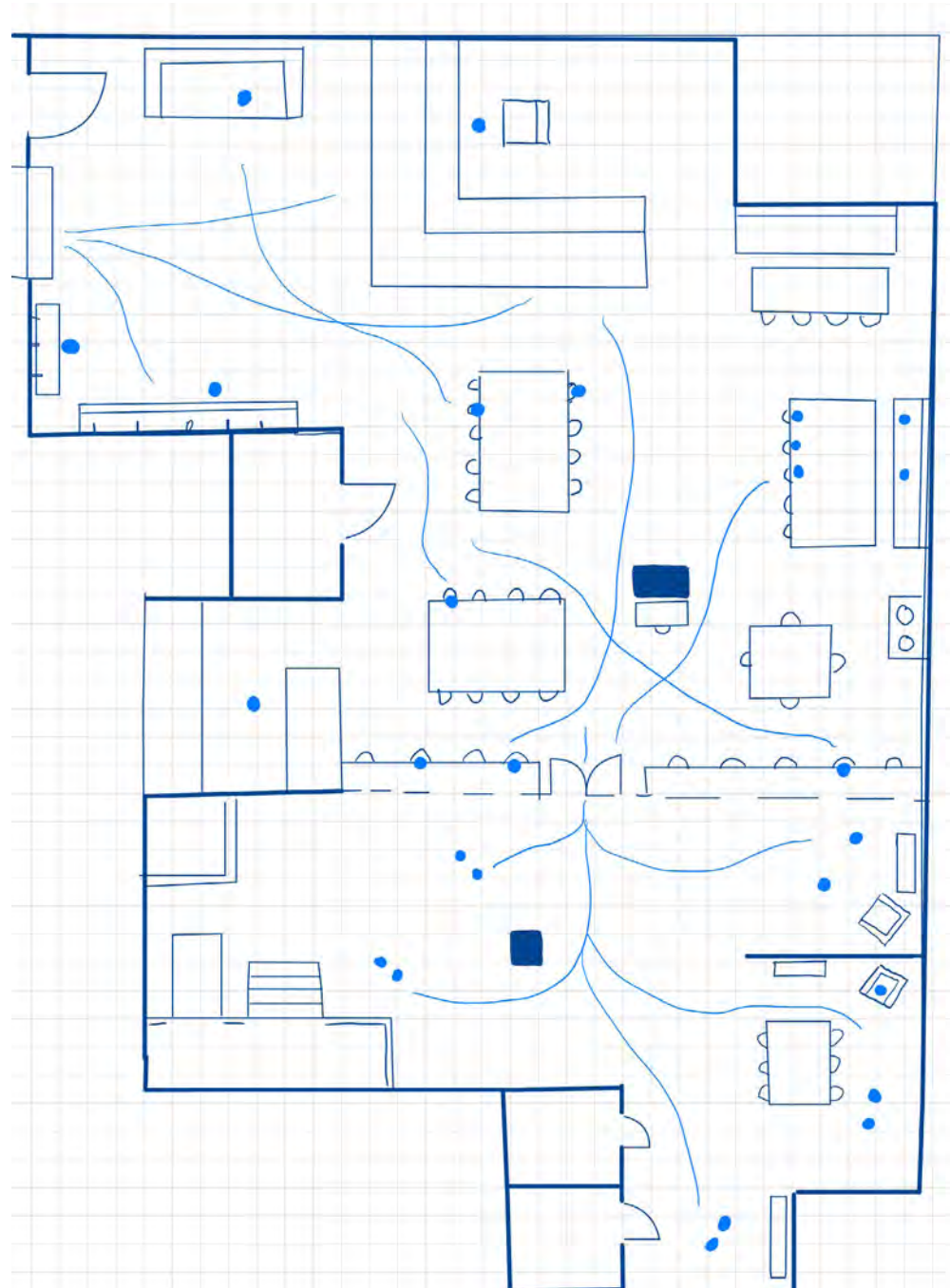


Lulu's is an indoor children's playground and cafe. They cater primarily to children ages 0-5. One of the owners, Vivi, was inspired to open this space by her experience in spaces as a nanny. She felt that there were no spaces for children and caregivers. During her experiences, she noted what she liked and did not like. For example, she put a highchair in the restrooms because she had experienced the struggle of having to use the bathroom with a young child. She said that she then implemented that into Lulu's.

Lulu's Casita has been open for ten years and has a new location in West Chester. The space feels warm, inviting, and accepting. While sitting in the cafe, I noticed she greeted many guests in English and Spanish and checked them in. She said she wanted the space to feel like you were going to a friend's house.

I visited in the morning, and she said it was slow, with about fifteen people, but it picks up between 10 am and nap time and again in the afternoon. She said it is typically very busy when there is no school, or it is rainy. They have open programming during the week and private birthday parties on the weekends. Some programming examples are bilingual story time, tiny tot dance parties, and arts and crafts projects. There was also a children's author there to read a book when I was there.

Vivi says that Lulu's is different because they cater to parents too. She said that sometimes parents of older children come and connect to the wifi and work while they watch their children play. Vivi said their interest in bringing diversity through books, toys, music, and more makes them unique. She noted that Lulu's is a partner in the community and often does events with local businesses.



Community Health & Literacy Center

Community Health & Literacy Center has a pediatric health clinic, community health center, library, recreation center, and community fridge/pantry. They cater to all ages within the community but focus on children in their programming. Vi Nguyen-Ngo from CHOP showed me around the Health and Literacy Center and told me about each organization and how they work together.

The Center's clinics have well visits, sick visits, vaccinations, testing, psychological services, and infant massages. The library has story time, job training, after school programming, private study rooms, homework help, and healthy hangouts. Healthy hangouts are where good health and wellness habits are taught. Vi from CHOP shared that she has run a hand-washing activity during the library's after school program. The Recreational Center has after school programming, arts programming, summer camp, and Girl Scouts.



Behind the Bar is another program the Center has where children can play instruments and produce music in the computer lab. A program that will be returning this spring is Thrashing Thursdays, a pop-up skate park in the playground of the Center.

The partners at the Center meet every month to discuss what is going on in their space as well as to discuss collaborative events. Some programs that the partners work together on are a Halloween parade with a healthy habits lesson, Zumba, outdoor story time in the park, a farmers market, and a health fair. Vi mentioned that the Center recently received a grant where CHOP worked with the library to discuss issues like bullying through storytelling. After story time, the book read was given to everyone at the event. These are just a few examples of how health and literacy work together to create a rich space for their community.



Community Health and Literacy Center Calendar October 2022						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
2	3 4:30 - 6 PM Beyond the Bars Music Lessons	4 4 - 5 PM Hula Hoop Jam	5 11 AM Baby/PreK Storytime at DiSilvestro 6:15 - 7:30 PM Girl Scouts	6 5 - 7 PM Thrashing Thursdays Skateboarding	7 1 PM PA Career Link Job Assistance	8 12 - 3 PM Hispanic Youth Career and Resource Fair at DiSilvestro
9	10 4:30 - 6 PM Beyond the Bars Music Lessons	11 4 - 5 PM Hula Hoop Jam	12 11 AM Baby/PreK Storytime at DiSilvestro 6 - 8 PM TATTOO 6:15 - 7:30 PM Girl Scouts	13 First Day of Hispanic Heritage Month 5 - 7 PM Thrashing Thursdays Skateboarding	14 1 PM PA Career Link Job Assistance	15
16	17 4:30 - 6 PM Beyond the Bars Music Lessons	18 4 - 5 PM Hula Hoop Jam	19 11 AM Baby/PreK Storytime at DiSilvestro 6:15 - 7:30 PM Girl Scouts	20 5 - 7 PM Thrashing Thursdays Skateboarding	21 1 PM PA Career Link Job Assistance	22 1 - 3 PM Fall Fest at DiSilvestro
23 Rain date 1 - 3 PM Fall Fest at DiSilvestro	24 4:30 - 6 PM Beyond the Bars Music Lessons	25 4 - 5 PM Hula Hoop Jam	26 11 AM Baby/PreK Storytime at DiSilvestro 6 - 8 PM TATTOO 6:15 - 7:30 PM Girl Scouts	27 5 - 7 PM Thrashing Thursdays Skateboarding	28 1 PM PA Career Link Job Assistance	29
30	31 4:30 - 6 PM Beyond the Bars Music Lessons			Purple: Library Event Green: HC 2 Event Blue: CHOP Event Orange: DiSilvestro Event	All building events are subject to change. For up to date information, please refer to DiSilvestro's Facebook page or go to freelibrary.org/southphiladelphia for their events.	



Community Health and Literacy Center Events Calendar from October 2022

“KEY INFORMANT” INTERVIEW

Derrick Ingram, Associate Executive Director of the Havertown YMCA

Derrick previously worked in manufacturing and logistics, but seven years ago he began as a Member Services Representative at the at Havertown YMCA's front desk. Since then, he has worked his way up to his new role as Associate Executive Director. Working at the YMCA has been Derrick's favorite job. His favorite part of working at the YMCA has been seeing the impact that it made upon him and community members. His moto to his team is to never underestimate what being a member means to people. Derrick noted that he enjoys mentoring younger team members because the role is member facing and it teaches team members to hone their communication and de-escalation skills.

Derrick said that empathy is at the core of what the YMCA does. In recent years they have been trying to bring more empathy to their day-to-day operations by expanding and adding more seating options in the lobby gathering space and understanding the importance of wellness in both mind and body. Community members have told him how the physical and social aspects of being member of the Havertown YMCA have impacted their mental health. He even had a member who struggled with mental health issues pull him aside and share that the YMCA prevented them from committing suicide. Experiences like this changed Derrek's outlook on what he does and make it such an impactful job to him.

His day varies based on members needs come up, but he typically starts by speaking to the staff and providing the team with updates on the branch and programming. He speaks with the 15 other Philadelphia YMCA branches, addresses member's concerns, and analyzes retention and member data. He also works with local businesses to both support the Y's initiatives and local businesses.

Derrick says that the Havertown branch is unique because of how large it is as well as how diverse its members are in

income, religion, family dynamic, and location. Members come from neighborhoods such as Overbrook, Havertown, Broomall, and more. Forty percent of the Havertown YMCA's members are families, and the rest are individuals and seniors. The Havertown branch has a variety of children's programs including swimming, basketball, gymnastics, soccer, t-ball, and arts and humanities classes. Their programs are an additional fee, but financial assistance is available.

Derrick sees this diversity as a major strength of the Havertown branch, but it does cause them to have to cast a wide net to meet different needs of the various members. The as a leader of the branch, Derrick looks to ensure that all members feel safe and comfortable. He noted that it can be challenging to break down walls, but that it is worth it to ensure that all feel welcome. One way that the Havertown YMCA does community outreach is through a block party that they host once a month. It is a great way to bring local businesses, food vendors, and artisans.

When asked about the hardest part of Derrick's job he said ensuring quality was one of the most difficult aspects. He aims to ensure that all members receive the same quality no matter if they are paying full price or receiving financial assistance. Since reopening after the COVID shutdown there have been fewer staff which makes ensuring the quality of membership more difficult, but he noted that he does not believe the quality has decreased, just that all members cannot receive as individualized of a membership experience.

In the future, Derek would like to work with the community to develop more programming and make a deeper impact on mental health. He says that the last few years as well as the COVID-19 shut down showed him the importance of this. For employees, he would like to increase career development opportunities and create spaces for employee engagement.

An online survey of mothers was conducted to better understand needs of the users. The survey was shared with friends and family, and on social media.

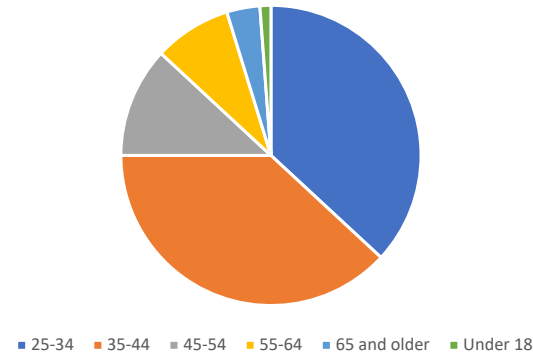
- **Number of respondents:** 84
 - Majority from the Northeast Pennsylvania region- a region Scranton resides in.
- **Activities respondents were most interested in:**
 - Reading, Exercise, Cooking, Home Improvement
- **Spaces respondents enjoy gathering in the most:**
 - Home/Friends Homes, Outdoors, Restaurants, Coffee Shops
- **Largest obstacle to self-care for respondents:**
 - Time, Lack of Childcare, Guilt, Money
- **Some comments from respondents:**

“Just having a space for women to decompress after work or being with the kids all day would be amazing. Especially if there was a place to take the kids to have some fun too but where we don’t have to watch them the whole time.”

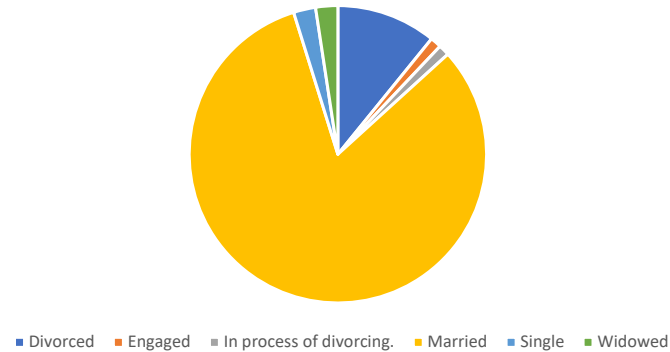
“Childcare availability would of been the #1 barrier (to self-care) when my kids were younger.”

“Please include room for all ages in your space. There is much that different generations can learn from each other that will help make our world a better place.”

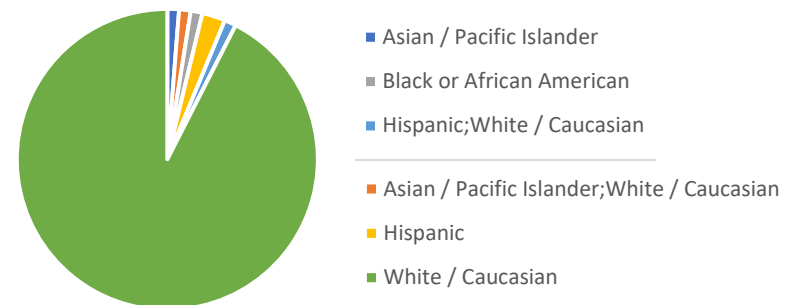
What age range do you fall within?



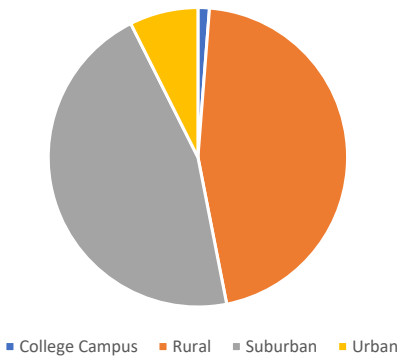
What best describes your marital status?



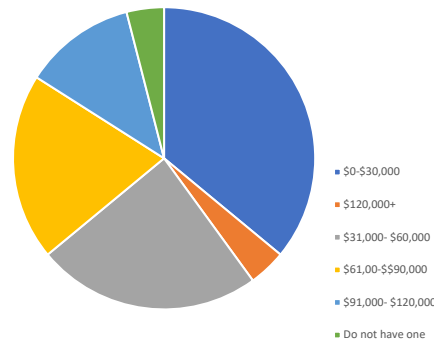
Which race or ethnicity best describes you?



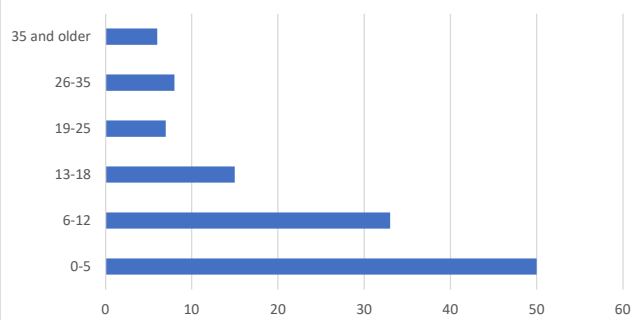
What best describes where you live?



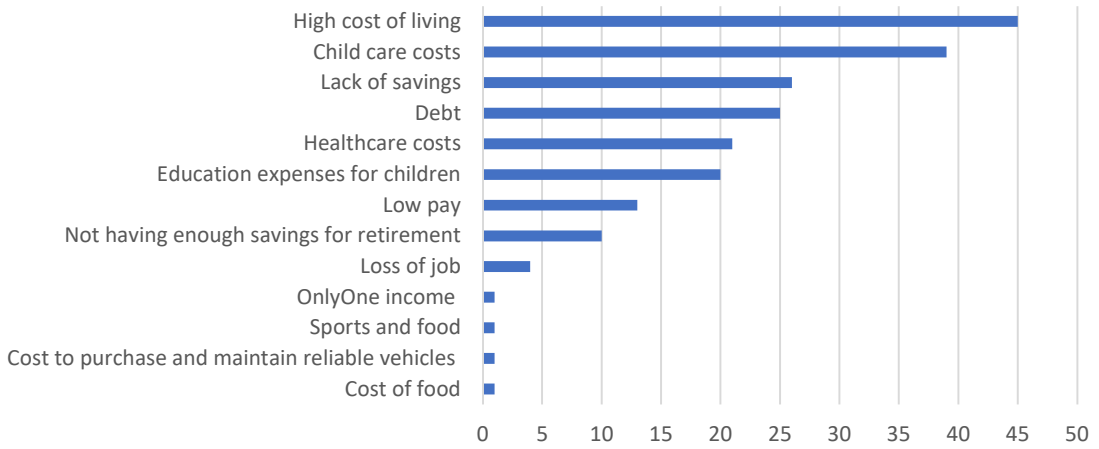
Which of the following best describes your personal income last year?



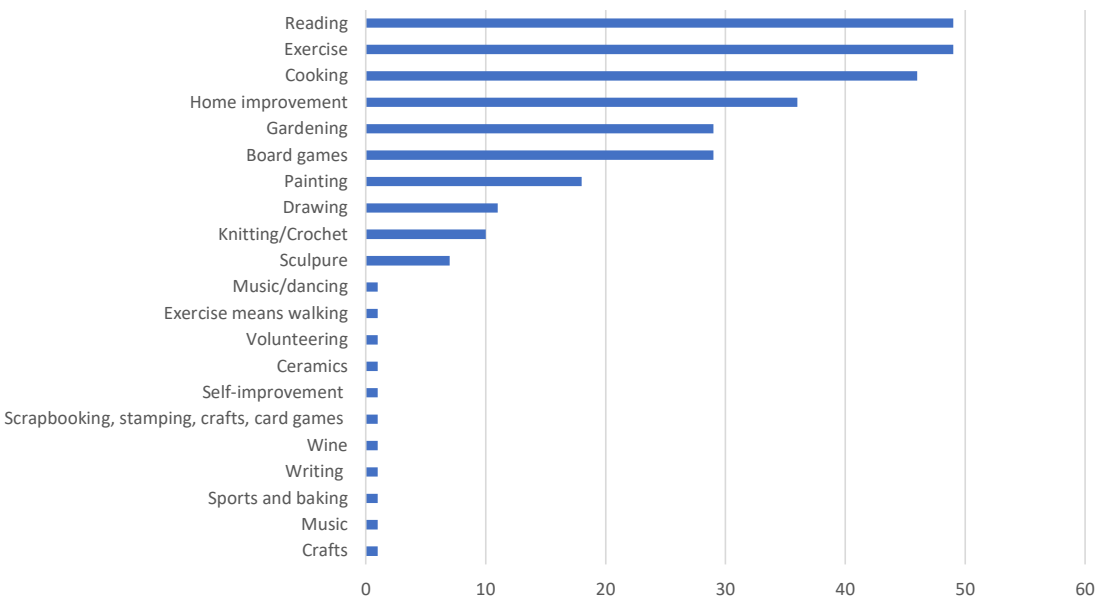
How old are your children? Check all that apply.



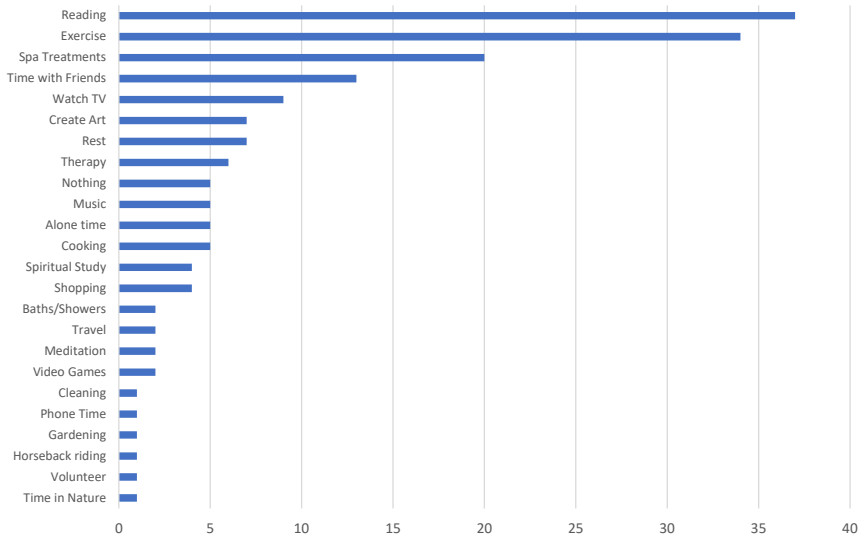
What is/was the largest financial struggle you face/faced as a parent? If your children are adults and left home, select all that applied when your children lived at home with you. Please select all that apply.



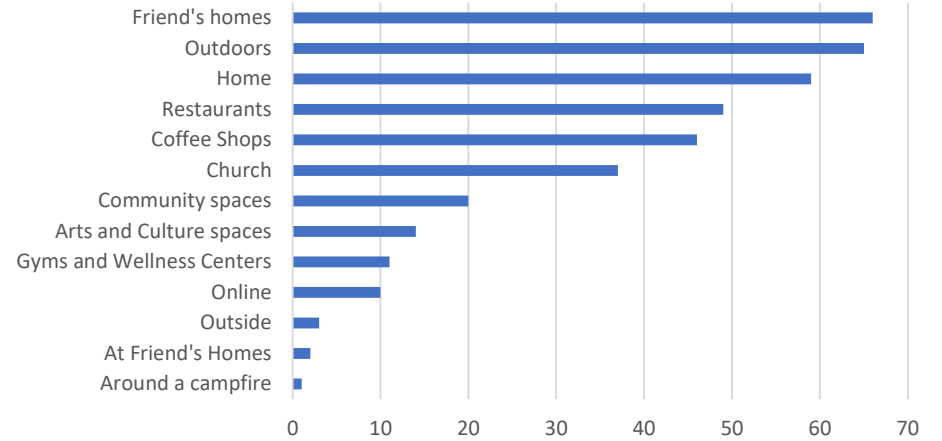
What activities are you most interested in? Select all that apply.



What do you do for self-care? (For example reading, therapy, manicures, exercise, etc.)

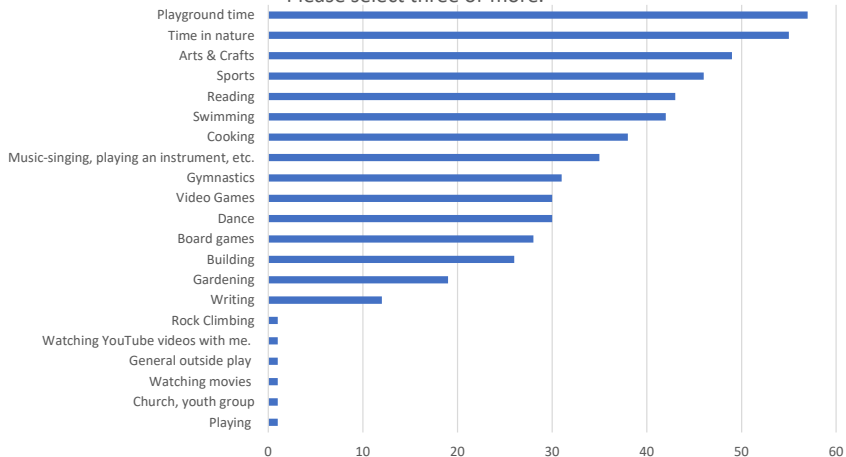


In what type of spaces do you like to gather?

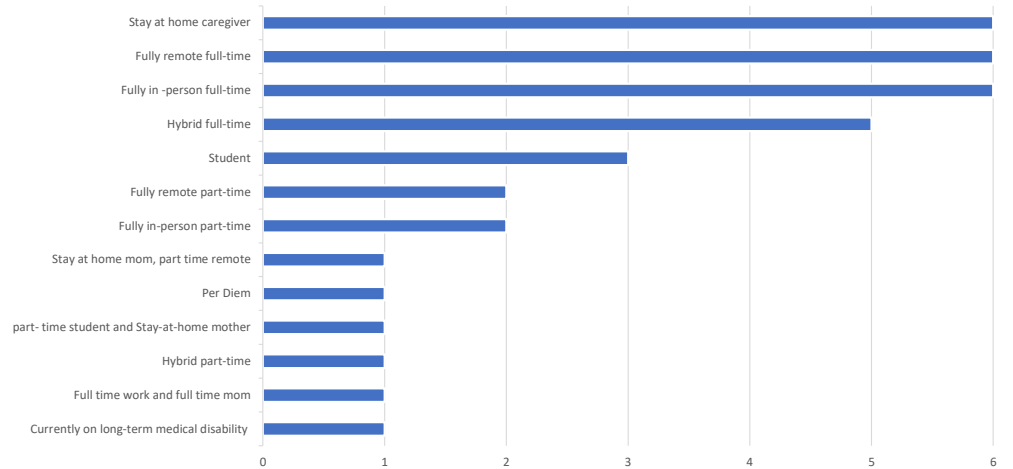


What types of activities do your children or grandchildren enjoy the most?

Please select three or more.



What best describes your work life?





After conducting the user survey the information was used to create user profiles. These profiles were used in user journey mapping and throughout the design process.

Mom 1

Age: 38

Work: Student

Marital Status: Married

Children's Ages: 2 years, 5 years

Children's Favorite Activities: time in nature, arts & crafts, reading, writing, cooking

Financial Limitations if Any: childcare costs, education expenses for children, healthcare costs, high cost of living

Self-care: reading, therapy

Biggest obstacle: time

Favorite Places: coffee shops, gyms and wellness centers, outdoors, arts and culture spaces, friends home

Favorite Activities: Reading, gardening, painting, drawing, knitting, home improvement

Mom 2

Age: 31

Work: Per Diem Physician Assistant

Marital Status: Married

Children's Ages: 5 months, 2 years

Children's Favorite Activities: gymnastics, sports, time in nature, music- singing

Financial Limitations if Any: education expenses for children, high cost of living

Self-care: workout, bake, nap

Biggest obstacle: coordinating childcare

Favorite Places: coffee shops, gyms and wellness centers, restaurants

Favorite Activities: cooking, exercise

Mom 3**Age:** 58**Work:** Fully in-person full-time**Marital Status:** Single**Children's Ages:** 27, 30**Grandchildren's Favorite Activities:** gymnastics, sports, dance, playground time, swimming, time in nature, arts and crafts, cooking**Financial Limitations if Any:** lack of savings**Self-care:** crochet**Biggest obstacle:** laundry**Favorite Places:** home, friend's homes, outdoors, restaurants**Favorite Activities:** reading, gardening**Mom 4****Age:** 49**Work:** Fully in-person full-time**Marital Status:** Divorced**Children's Ages:** 13 years**Children's Favorite Activities:** sports, dance, time in nature, board games, cooking**Financial Limitations if Any:** education expenses for children, high cost of living**Self-care:** yoga, meditation, reading, walking**Biggest obstacle:** work, child activities, household chores**Favorite Places:** outdoors, friends home, home**Favorite Activities:** outdoors, church, home**Mom 5****Age:** 25**Work:** Stay at home mom, part time remote**Marital Status:** Married**Children's Ages:** 3 years, 6 years**Children's Favorite Activities:** gymnastics, sports, playground time, arts and crafts, board games, video games**Financial Limitations if Any:** education expenses for children, low pay, lack of savings**Self-care:** Going out with friends and shopping alone (without kids)**Biggest obstacle:** child care and time**Favorite Places:** friend's homes, home, coffee shops**Favorite Activities:** board games, home improvement**Mom 6****Age:** 17**Work:** student**Marital Status:** single**Children's Ages:** 2 years**Children's Favorite Activities:** playground time, sports, arts and crafts**Financial Limitations if Any:** low pay, child care**Self-care:** read, time with friends**Biggest obstacle:** coordinating childcare**Favorite Places:** friend's homes, coffee shops**Favorite Activities:** drawing, reading, time with friends

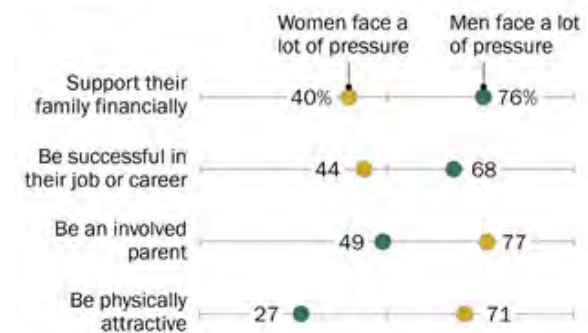
MOTHERS DATA

- There is a need for support.
 - Postpartum
 - 50% experience a mild depression after birth
 - 1 in 7 women (about 15%) experience postpartum depression (PPD)
 - 40% of women do not seek care
 - Lack of insurance
 - Lack of adequate family support
 - Low socioeconomic status
 - Mom Guilt
 - This is the name given to the feelings of guilt mother's experience. This often comes from the unrealistic ideal of the perfect mother.
 - Balancing Family and Work
 - Financial Strain & Unequal Pay
 - 35% more likely than men to be poor
 - Child Care Prices
 - In 2020 the cost of child care exceeded annual inflation by nearly 4%.
 - During the pandemic 39% of mothers said their mental health worsened compared to 25% of fathers.



Americans see different pressure points for men and women

% saying men/women face a lot of pressure to do each of the following

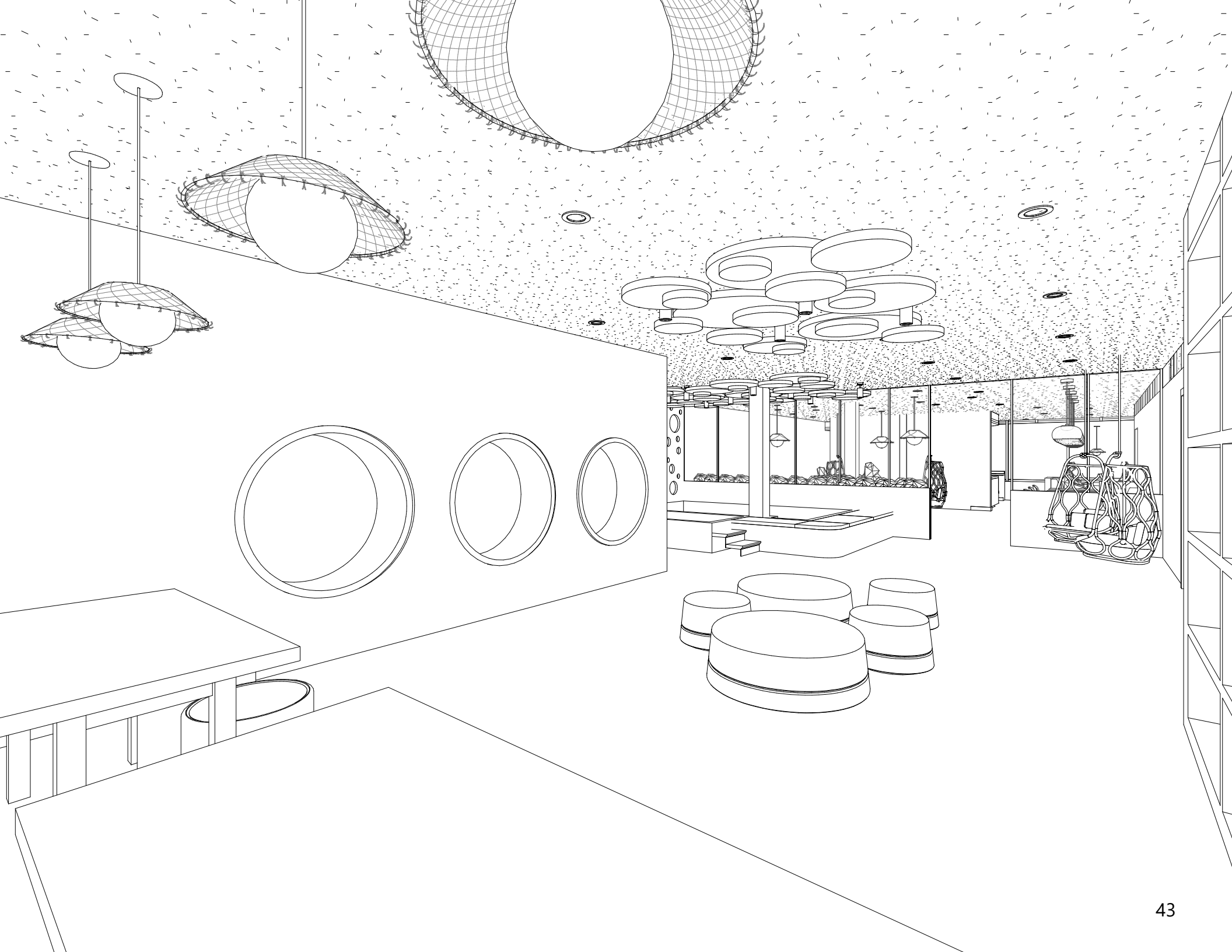


Source: Survey of U.S. adults conducted Aug. 8-21 and Sept. 14-28, 2017.

"On Gender Differences, No Consensus on Nature vs. Nurture"

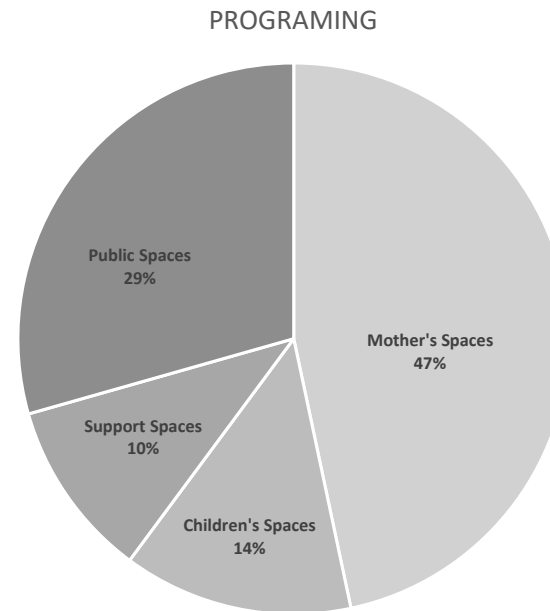
PEW RESEARCH CENTER

PROGRAMING

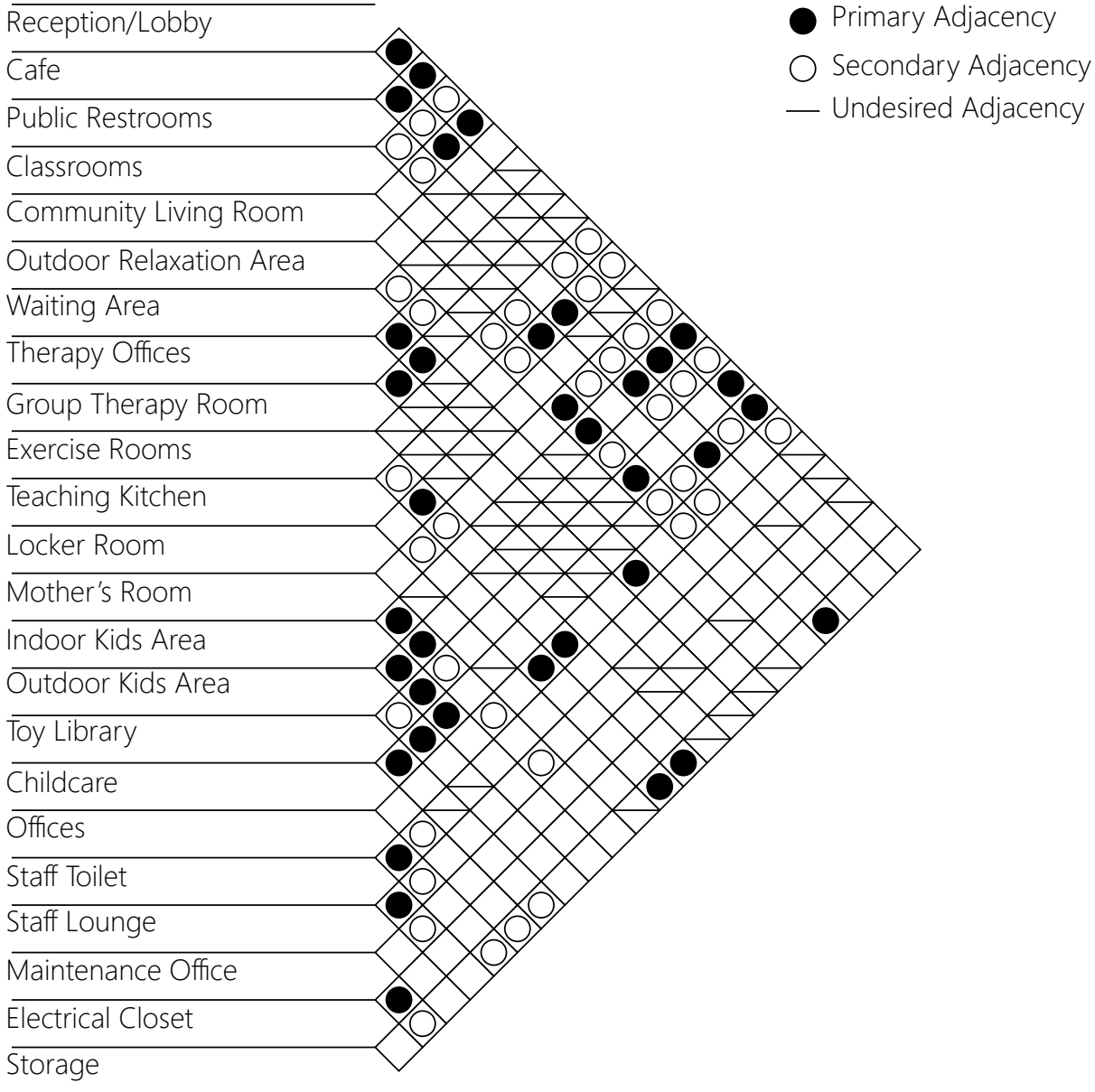


MASTER LIST OF SPACES

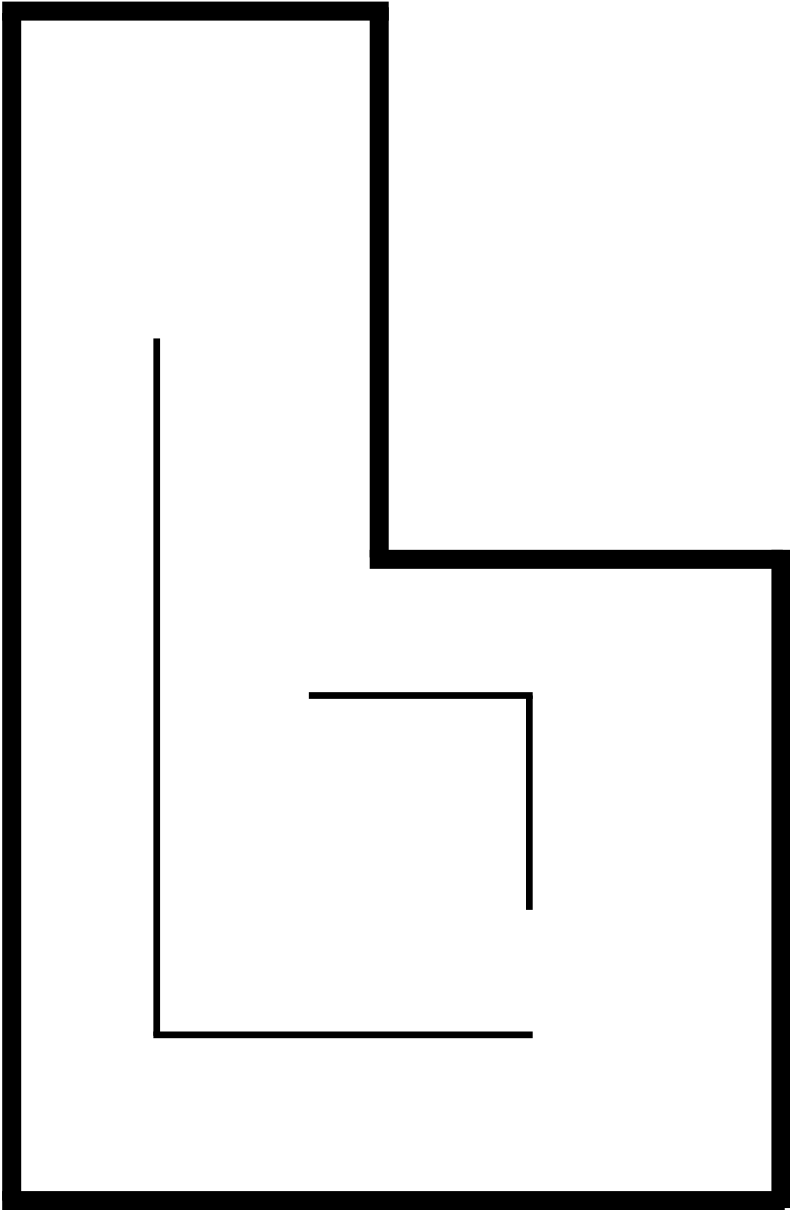
MASTER LIST OF SPACES		Column1
PROGRAM SPACE	SQUARE FOOTAGE	
PUBLIC SPACES		
Café		1,383
Community Living Rooms		3,661
Restrooms (Gender Neutral) (8)		529
Reception/Lobby		697
Patio		(600)
MOTHER'S SPACES		
Wellness		
Waiting Area (Therapy Offices)		434
Therapy Offices (3)		365
Group Therapy Room		237
Exercise Rooms (2)		1,086
Locker Room		451
Prayer/Meditation Room		74
Quiet Zone		232
Relaxation Rooms (3)		196
Mother's Room		244
Behavior Health Garden		(1,261)
Co-Working		
Co-Working Lobby		255
Open Work Space		2,519
Phone Rooms (2)		60
Private Offices (4)		196
Small Meeting Rooms (2)		238
Large Meeting Room		263
Presentation Room		273
Gathering Space		655
Copy Room		69
Co-Working Garden		(1,193)
Learning		
Multi-purpose Classroom		609
Teaching Kitchen		544
CHILDREN'S SPACES		
Indoor Kids Area		819
Outdoor Kids Area		(1,000)
Toy Library		332
Childcare		1,080
Nap Room		368
SUPPORT SPACES		
Offices (4)		380
Employee Lounge		188
Electrical Closet		117
Pantry		78
Storage (General & Janitorial Storage)		1,254
Subtotal		19,886
Circulation (including stairs & elevator) @ 30%		5,966
Total		25,852



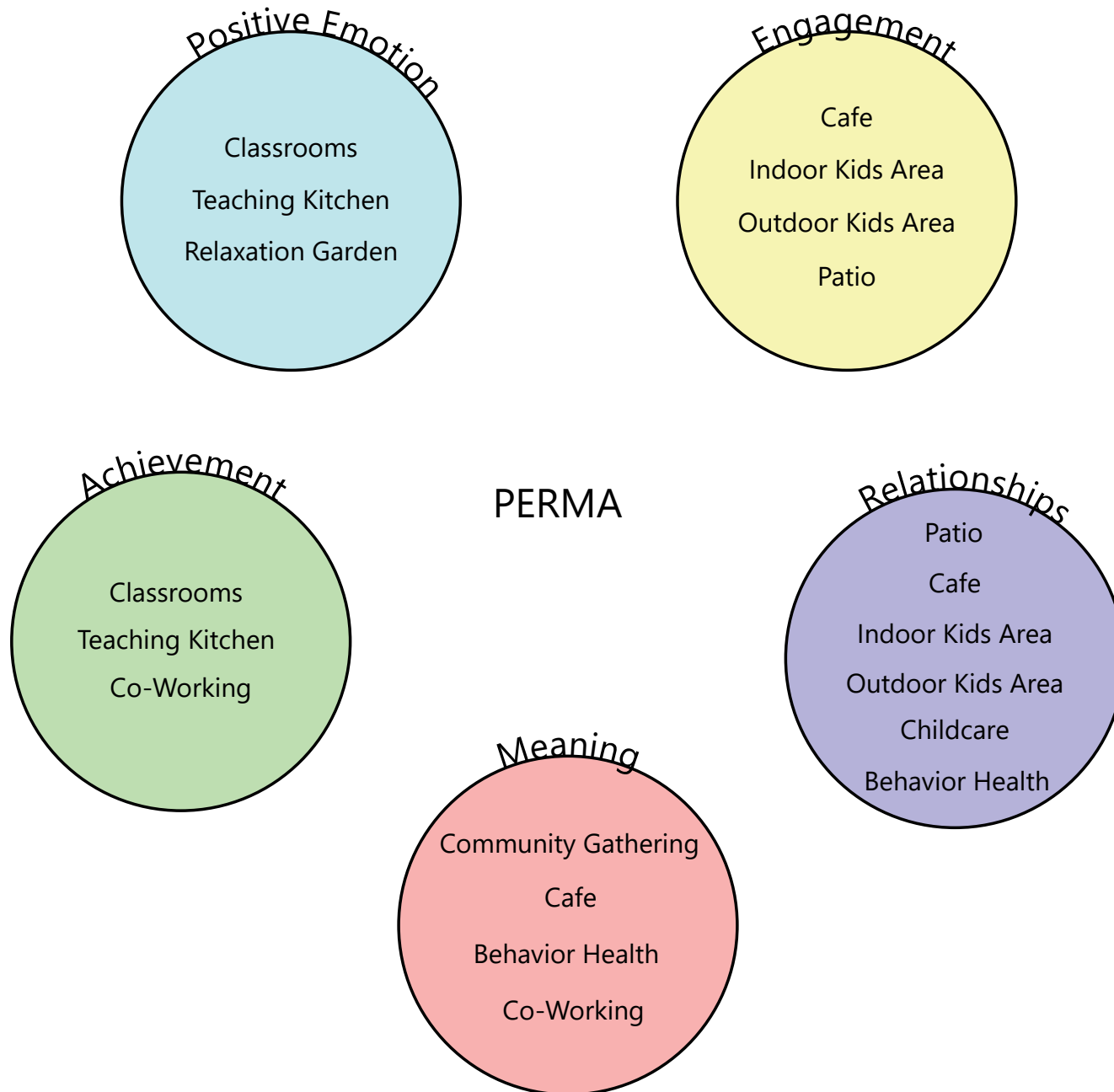
Adjacency Diagram



Parti



Programing for Well-Being with the PERMA Model



PERMA & Planning

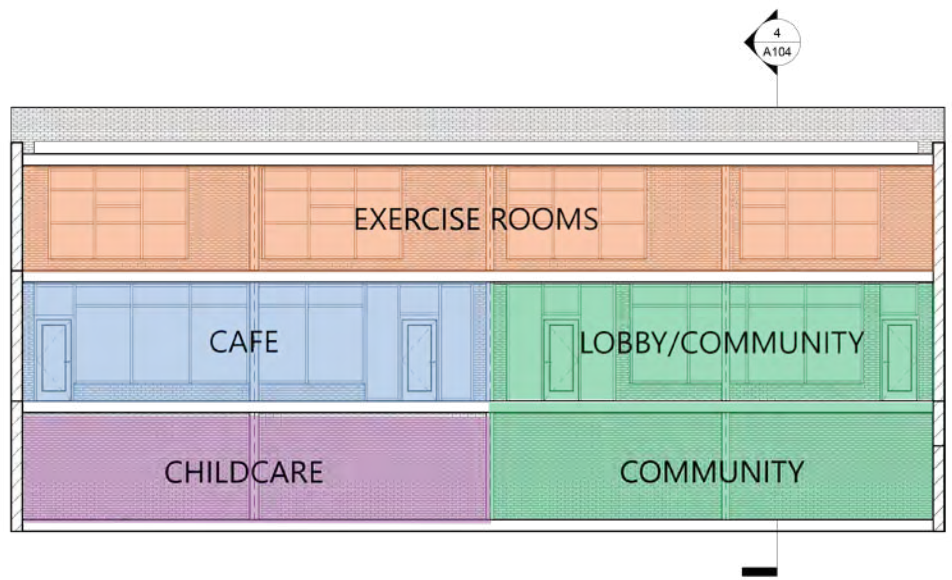
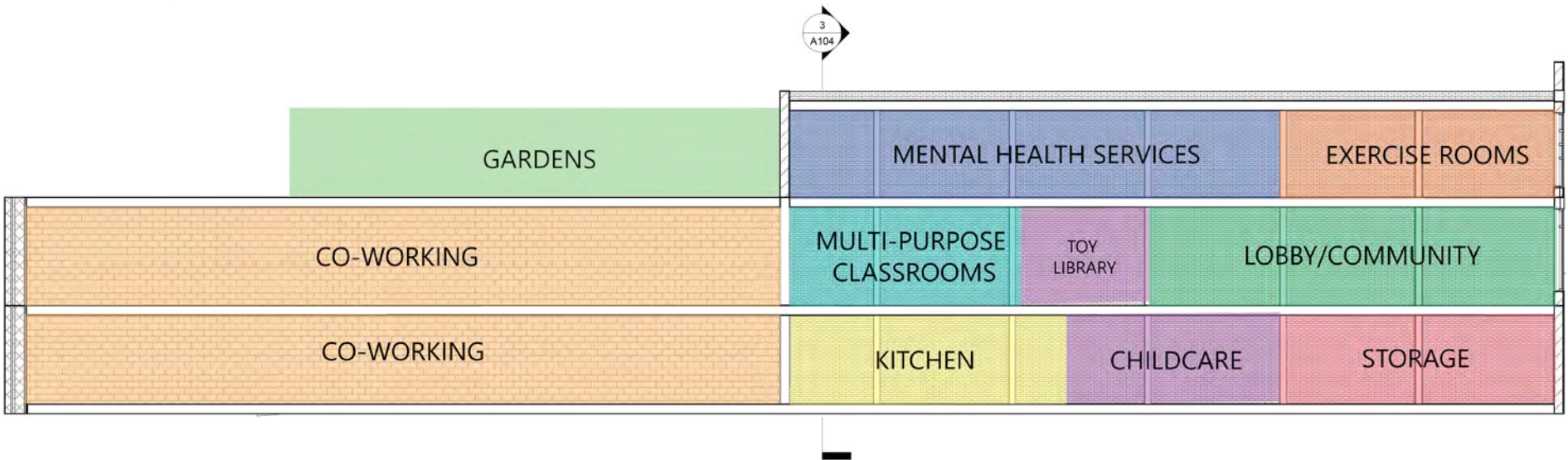


■ Positive Emotion
 ■ Engagement
 ■ Relationships
 ■ Meaning
 ■ Achievement

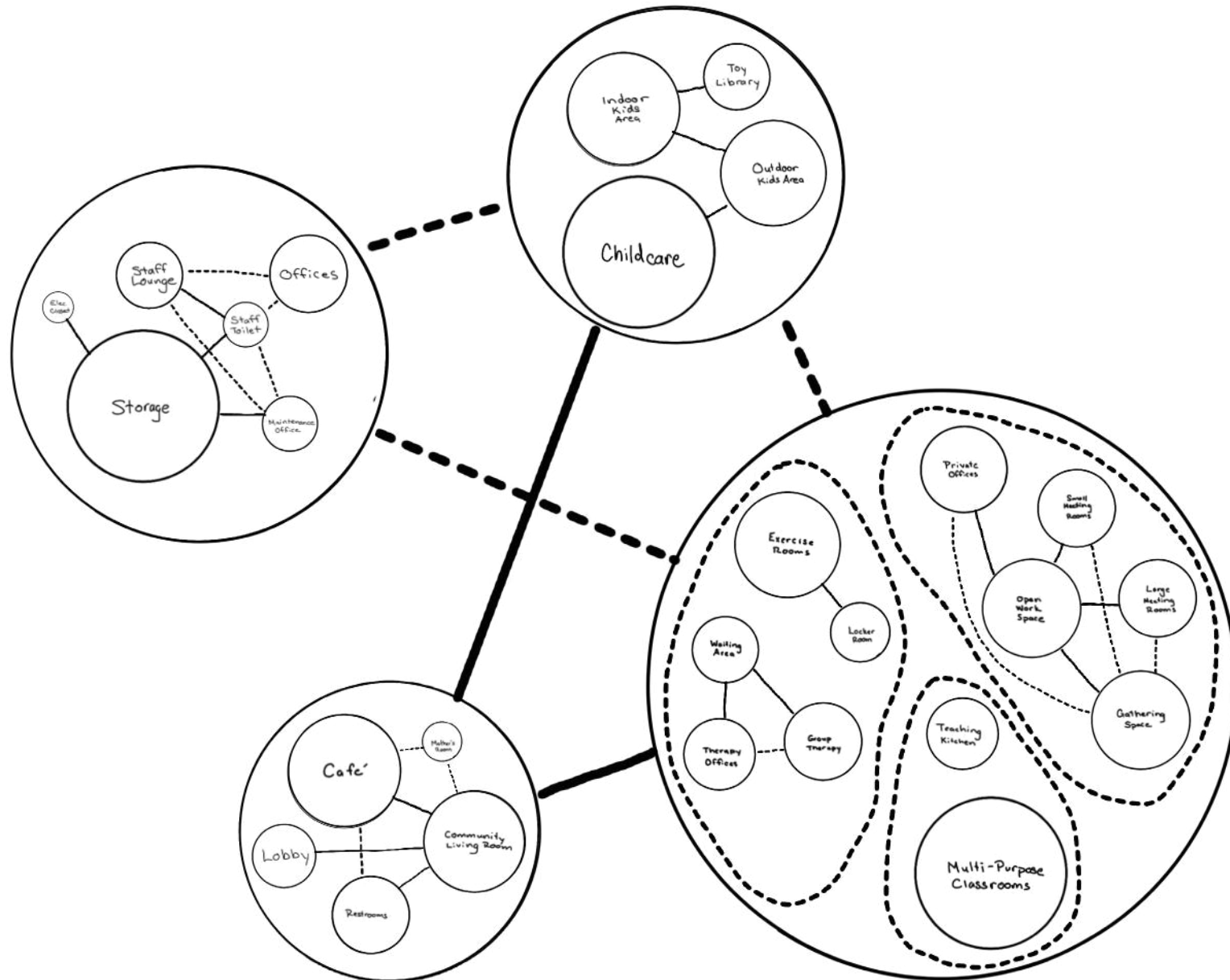
Blocking Plans



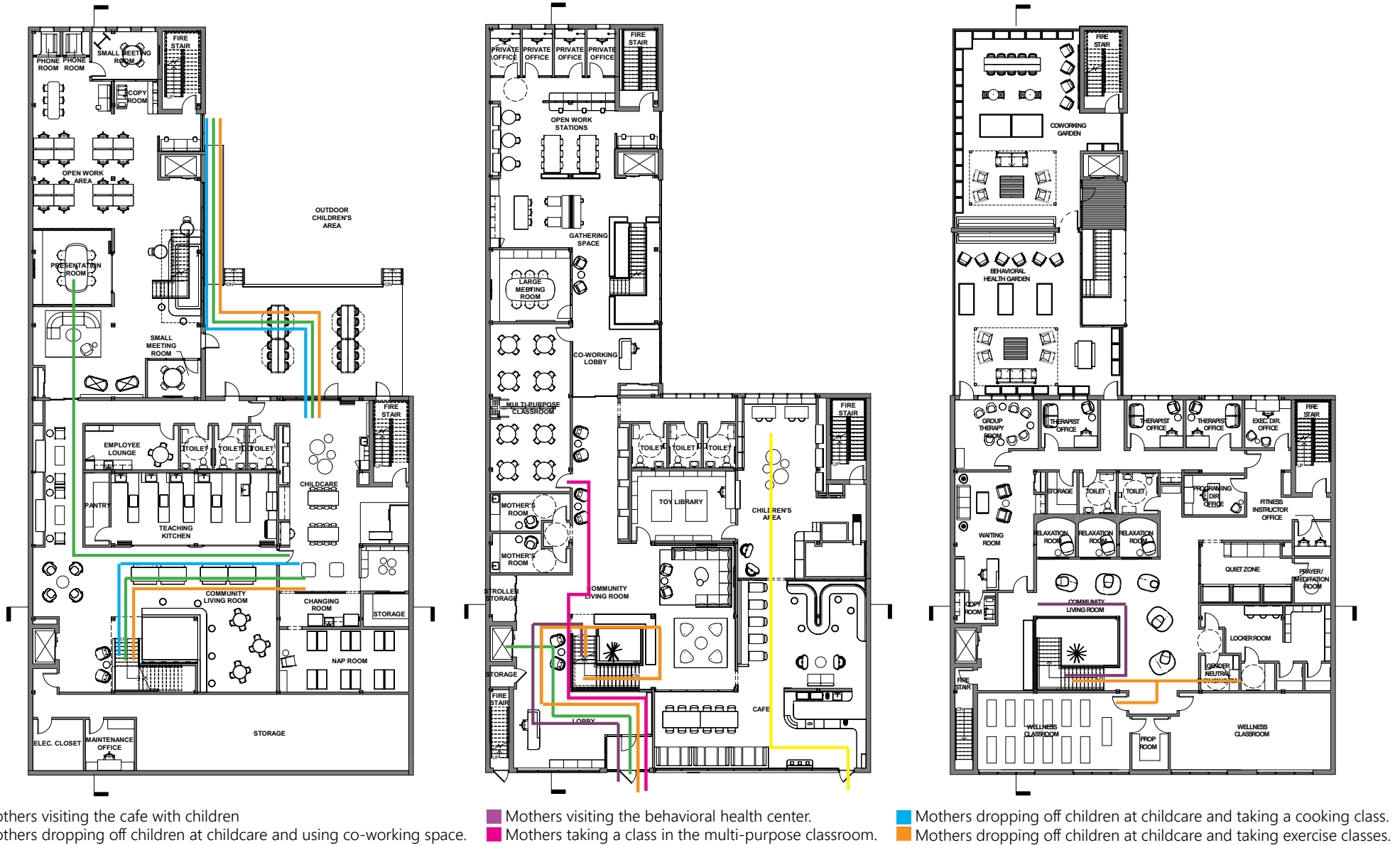
Blocking Sections



Bubble Diagram



User Journey Mapping



1928
NICHOLAS - YEAGER



Property Information

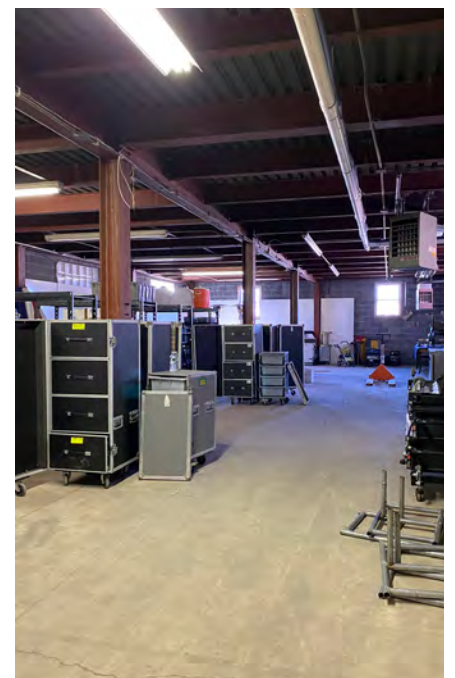
- Address: 533-535/537-539 Wyoming Avenue Scranton, PA
- Neighborhood: Downtown Scranton
- Property Type: Commercial
- Year Built: 1923
- Size: Three floors, Approximately 8,500 usable sq. ft. per floor Total of 25,500 usable sq. ft., Loading dock/delivery access
- Sits within a Keystone Opportunity Zone.

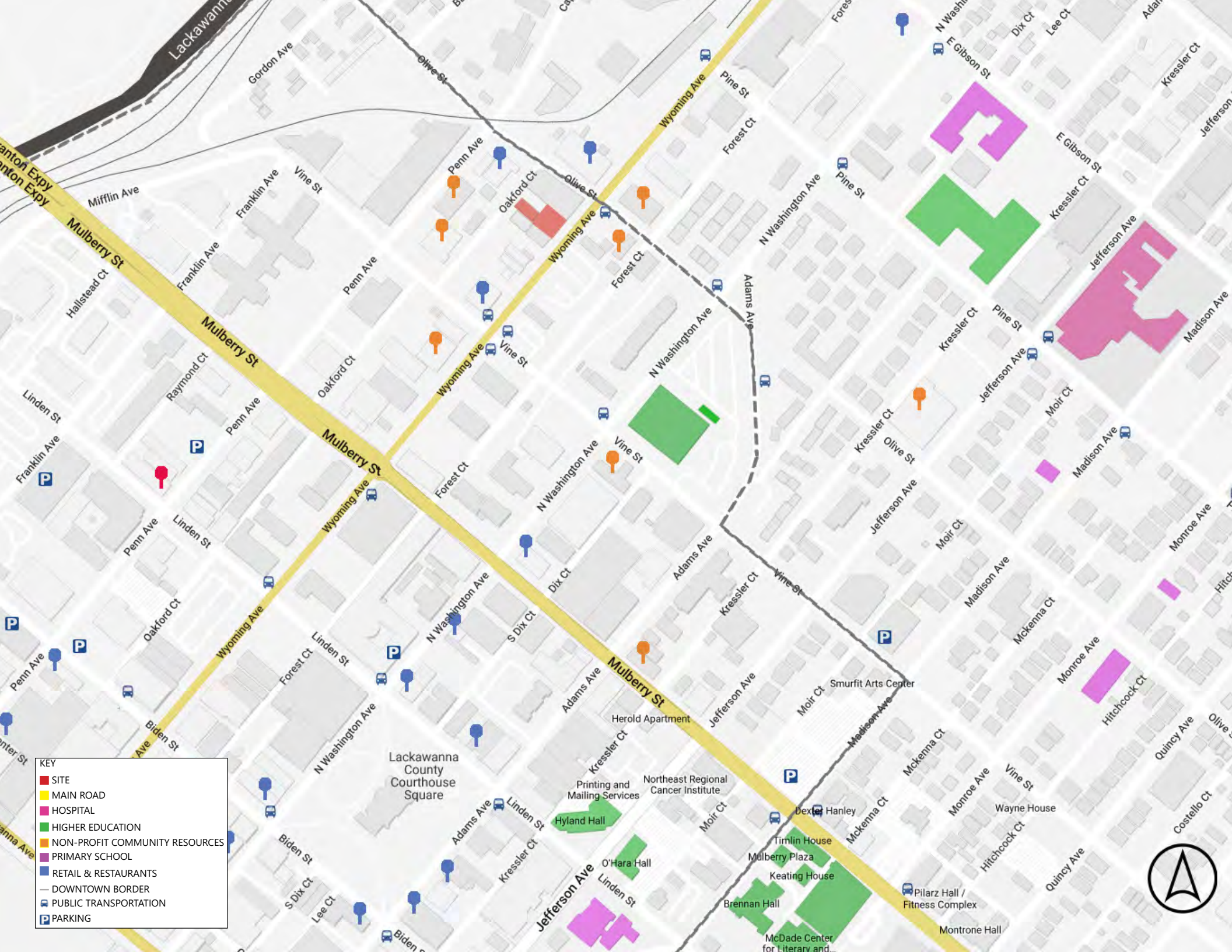
Site Selection Criteria

- Central Downtown Scranton location
- Highly accessible via public transportation and vehicle
- Proximity to the downtown business district
- Accessible to women of various socioeconomic statuses
- Proximity to primary and secondary education is a plus









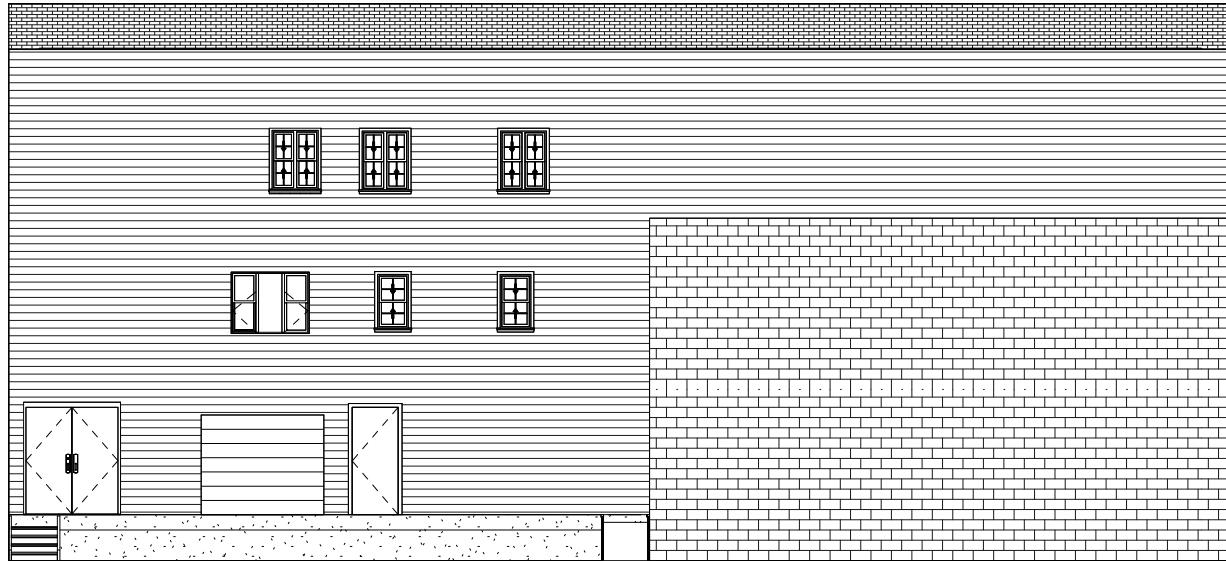
- KEY**
- SITE
 - MAIN ROAD
 - HOSPITAL
 - HIGHER EDUCATION
 - NON-PROFIT COMMUNITY RESOURCES
 - PRIMARY SCHOOL
 - RETAIL & RESTAURANTS
 - DOWNTOWN BORDER
 - 🚌 PUBLIC TRANSPORTATION
 - P PARKING



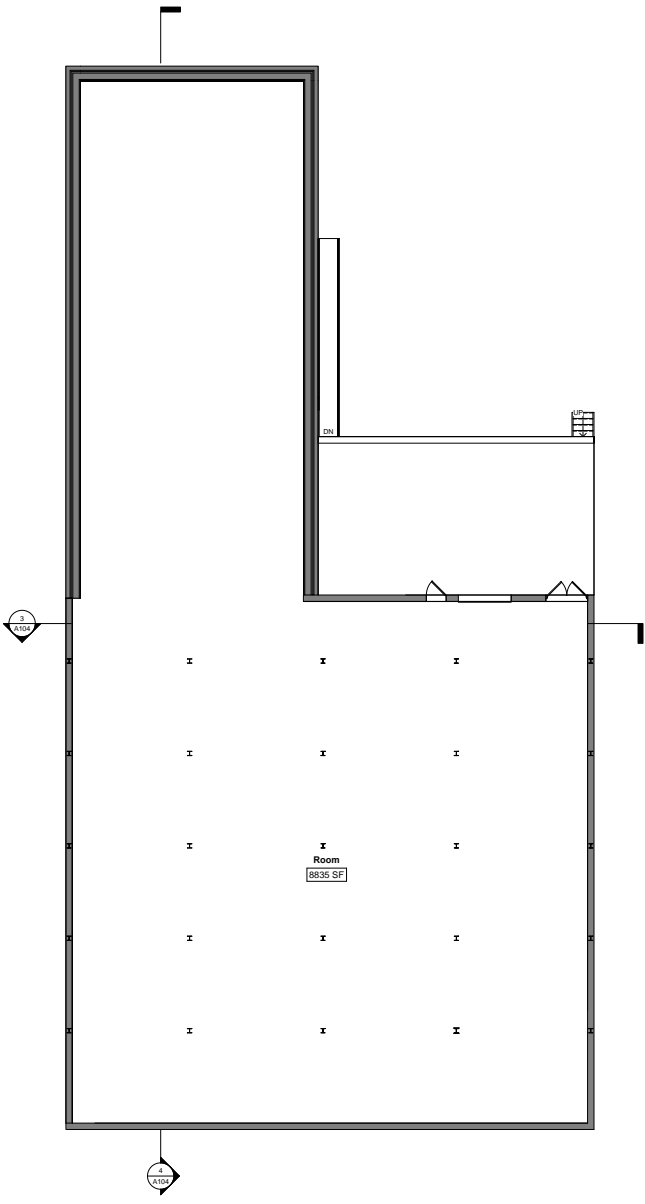
SITE DOCUMENTATION



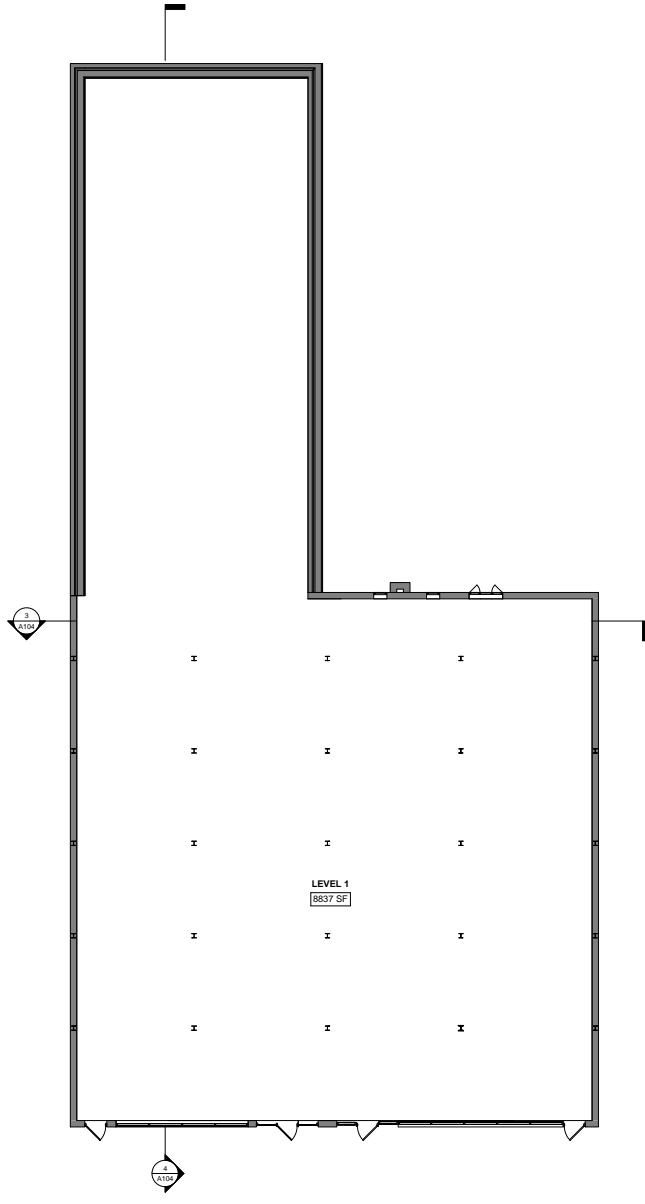
FRONT ELEVATION



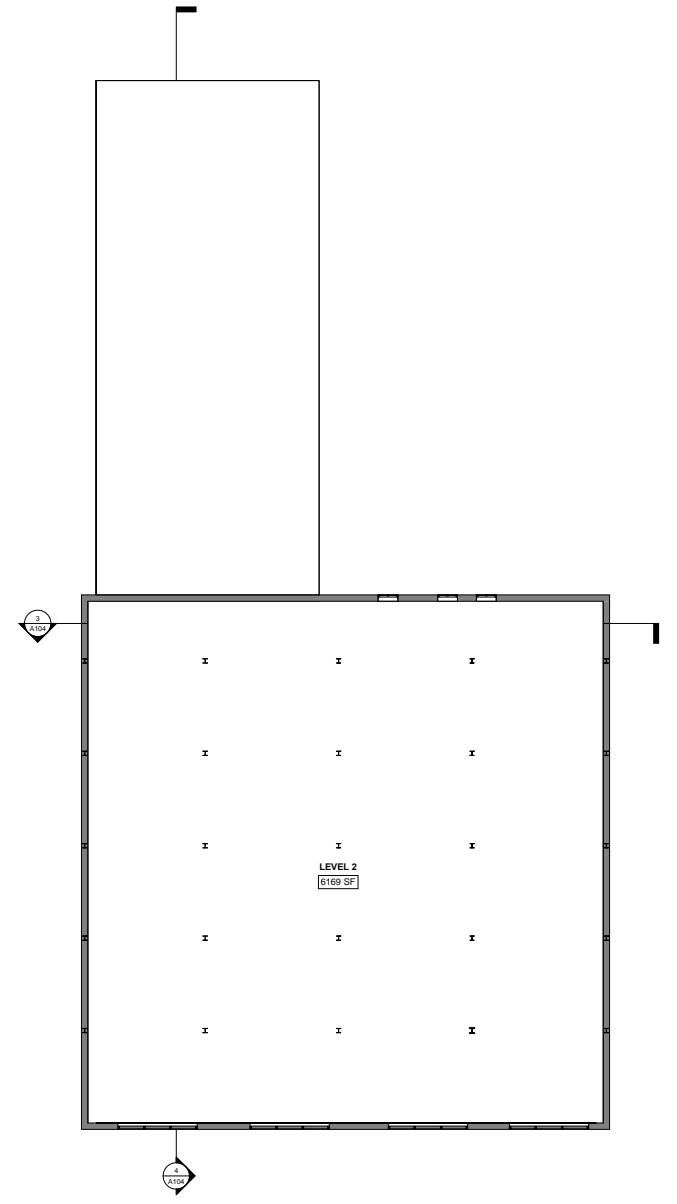
BACK ELEVATION



LOWER LEVEL PLAN

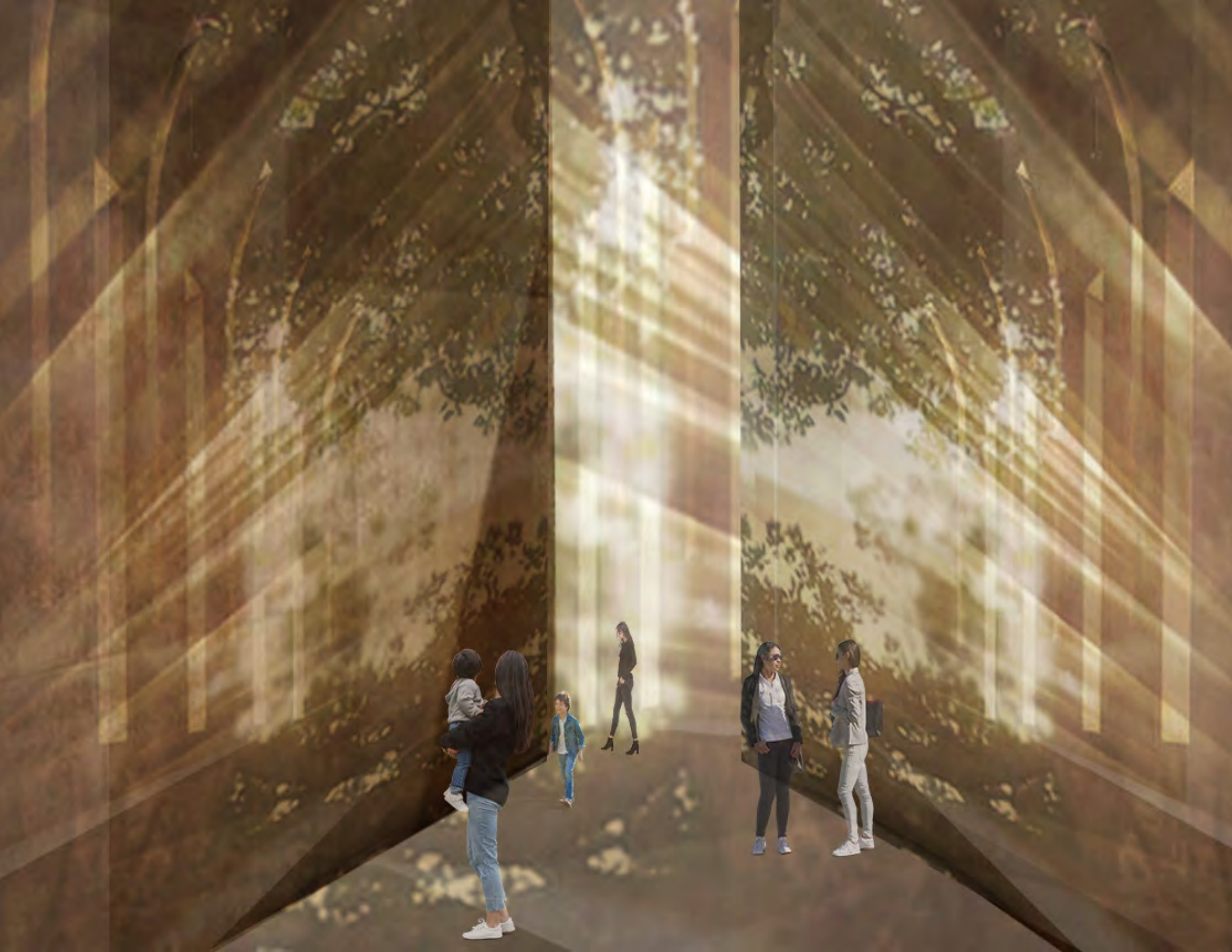


FIRST FLOOR PLAN



SECOND FLOOR

DESIGN DEVELOPMENT



DESIGN CONCEPT

The heart of the empathetic design process is the user. Connecting and understanding users on a deeper level brought user experience to the forefront of my research. In the United States, there is a lack of support for mothers. They often have little to no time for their own needs and well-being.

The goal for the design was to give mothers a moment for themselves. In my research, I found that mothers often struggle to find a space to go without worrying about childcare, safety, or judgment. The Nest is a center that aims to bring mothers together. It is a healing environment that gives them space to focus on their well-being. Thinking about a mother's journey before, during, and after their time at the center guided the design process and every design decision.

The program of The Nest has four parts: public spaces, mother's spaces, children's spaces, and support spaces. The mother's spaces can be broken down further into wellness, co-working, and learning. These three categories allow mothers to achieve well-being.

THE NEST



CONNECTION

COMFORT

BELONGING

The Nest is a nurturing environment for mothers that is built on connection, comfort and belonging. The center aims to bring mothers together in a healing environment that gives them space to focus on their well-being.

DESIGN PROGRESS

COMMUNITY LIVING ROOM CONCEPT

The community living room is at the heart of every floor. Each floor's community living room has a different focus- the lower level focuses on belonging, the first floor focuses on connection, and the second floor focuses on comfort.

The lower level's living room feeds off the teaching kitchen and encourages users to interact and put their mark on the space. This room is the main space for the artist in residence program where local artisans can share their art with the community.

Connection is emphasized in the first floor's living room with comfortable seating soft arrangements that encourage connection.

On the second floor the living room focuses on spaces for decompression. The spaces on this floor are focused on independent relaxation and quiet contemplation.

LEVEL 2: COMFORT

decompress



LEVEL 1: CONNECTION

bond



LOWER LEVEL: BELONGING

interact



Scranton Code

The City of Scranton enforces the 2018 International Code Council (ICC) Series, which includes the following codes:

2018 International Building Code

2018 International Existing Building Code

2018 International Plumbing Code

2017 ANSI 117.1

2021 International Building Code Chapter 11 ONLY

533-539 Wyoming Avenue Code

Building Occupancy Type: B

Sprinkler System: Fully Sprinklered

Occupancy Load Factor: 150 gross

Occupancy Load: 154

Max Common Path of Egress: 100'

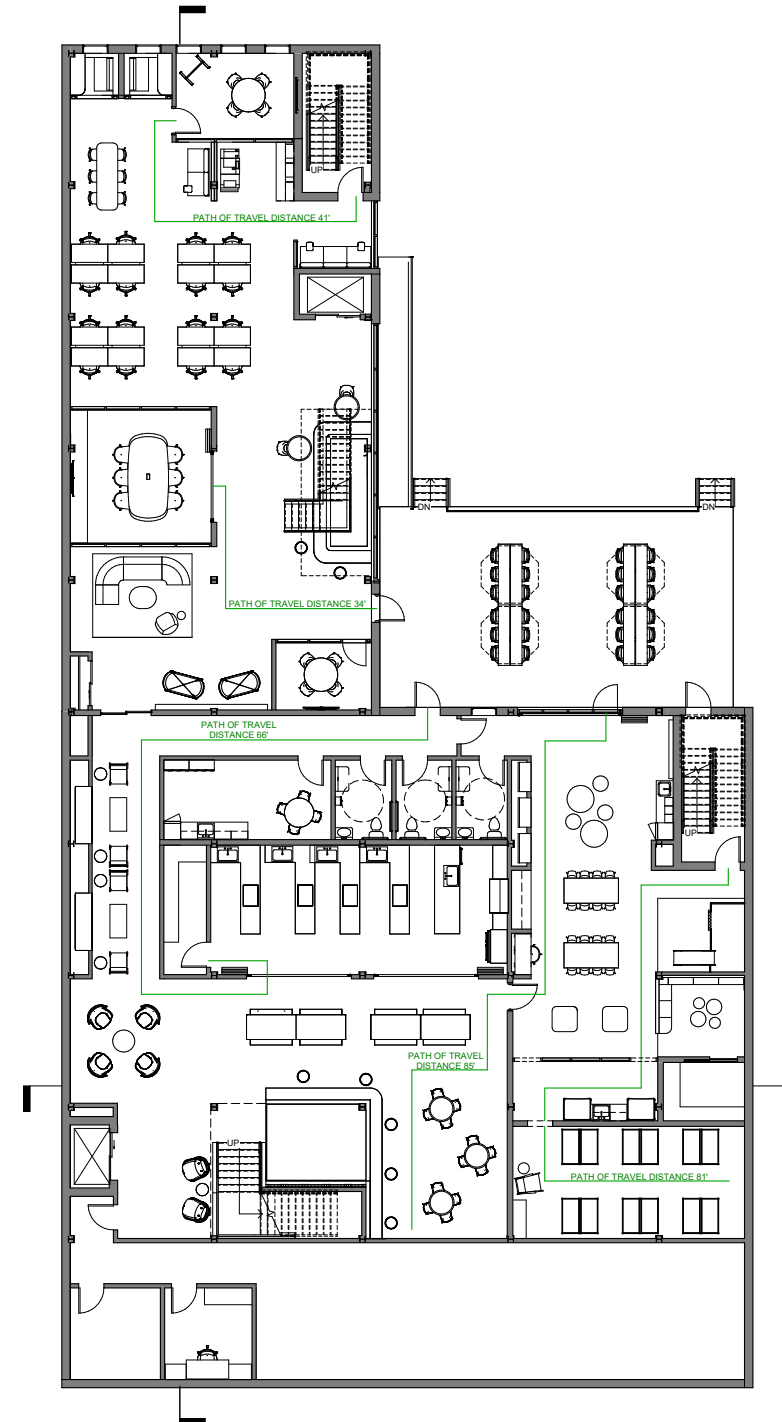
Minimum Number of Exits: 2

Minimum Water Closets: 5

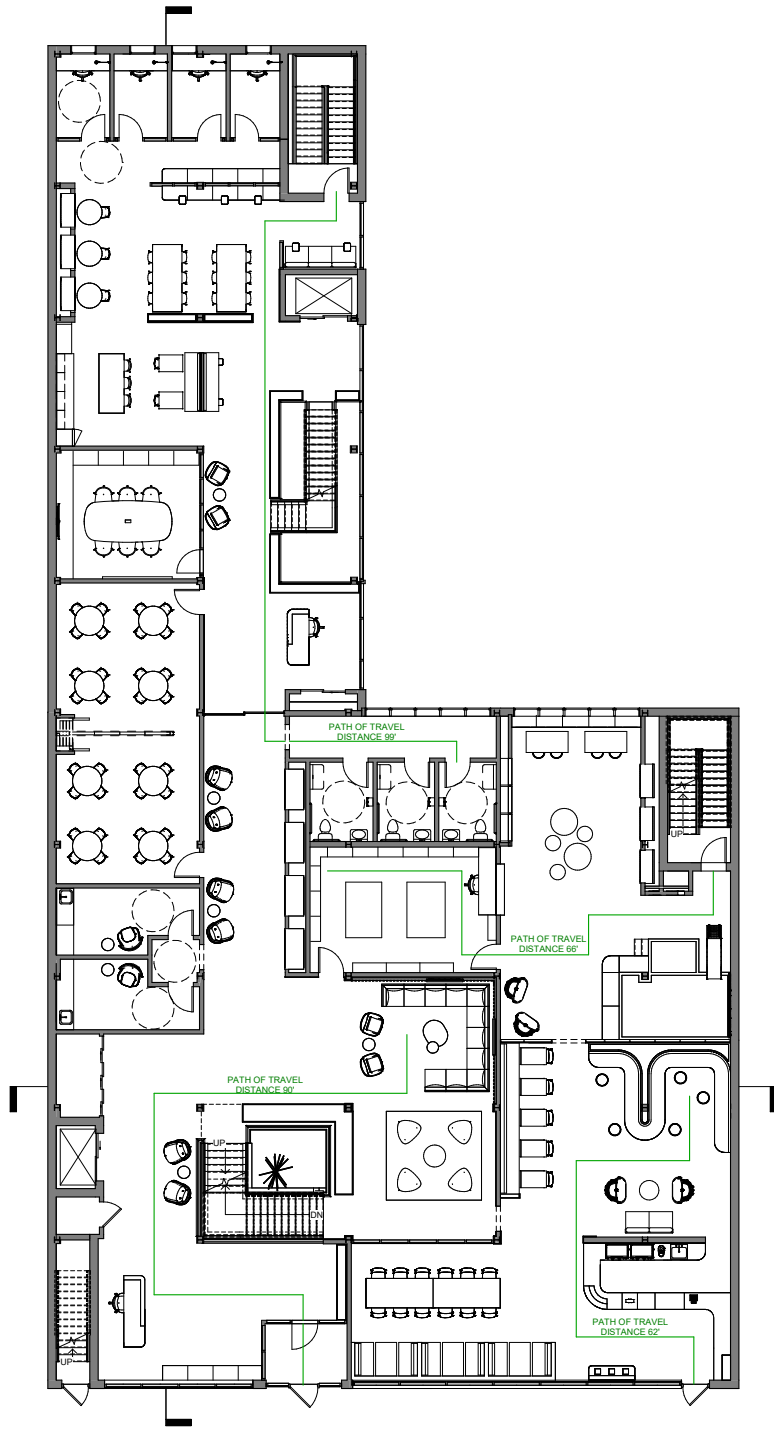
Minimum Lavatories: 3

Minimum Drinking Fountains: 2

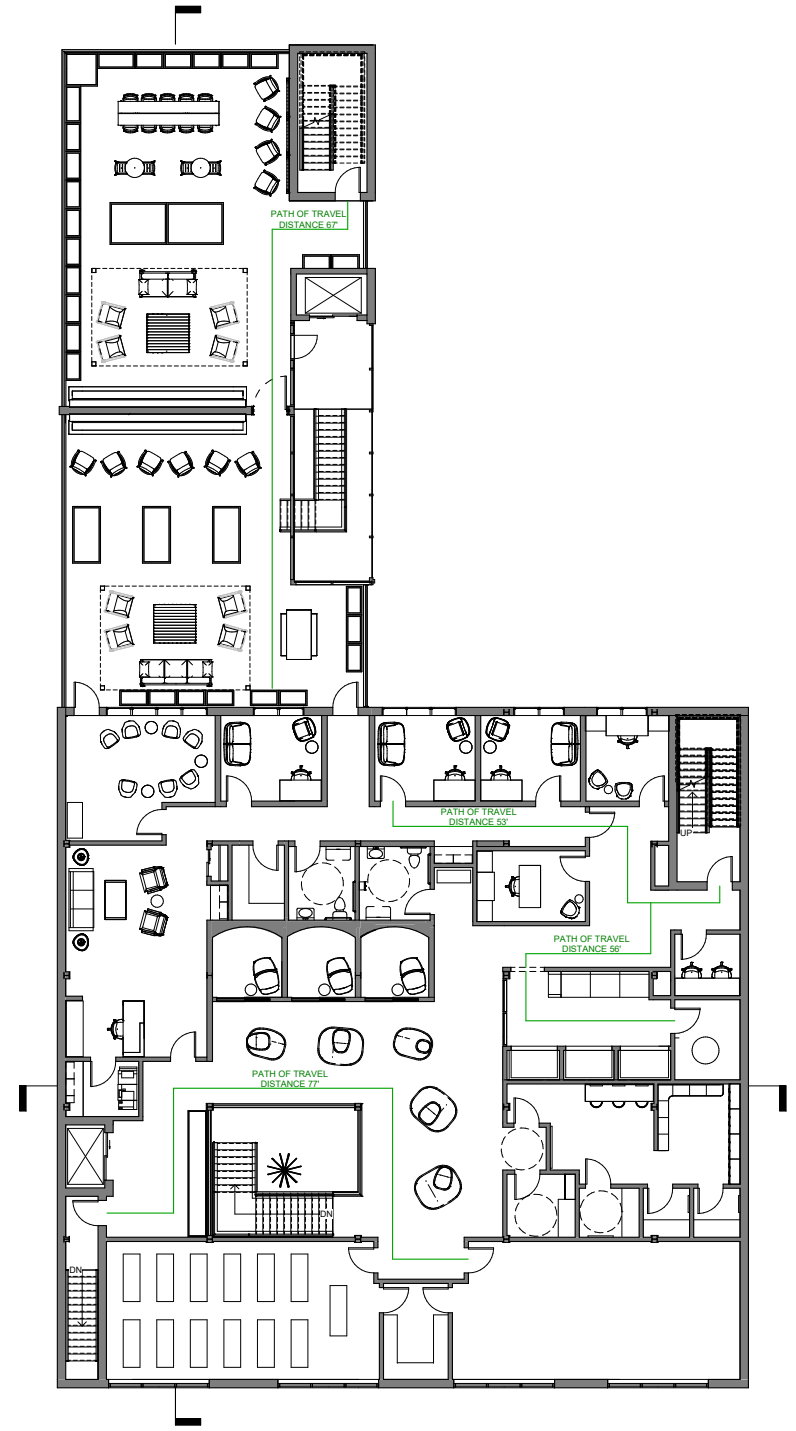
Other Plumbing Requirements: 1 Service Sink



LOWER LEVEL PLAN

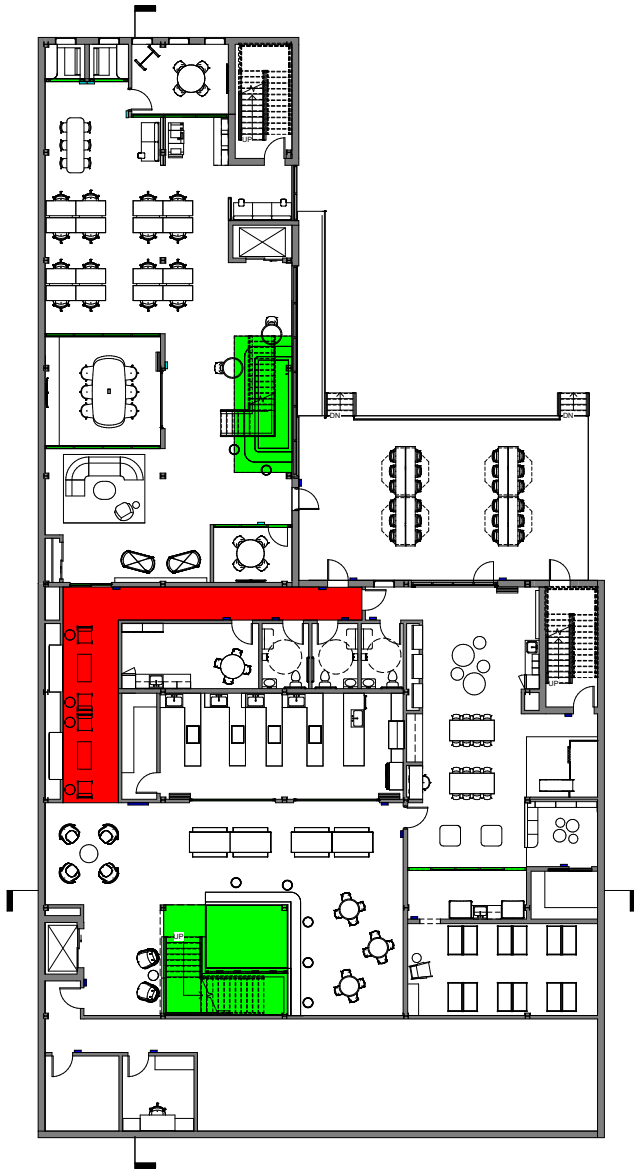


FIRST FLOOR PLAN

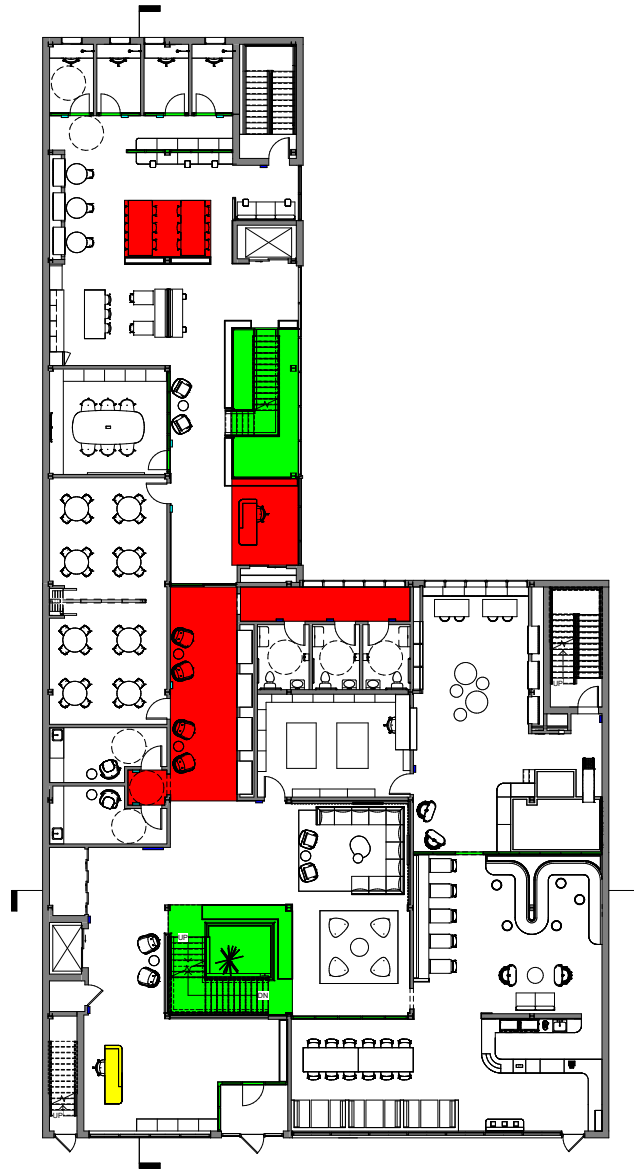


SECOND FLOOR PLAN

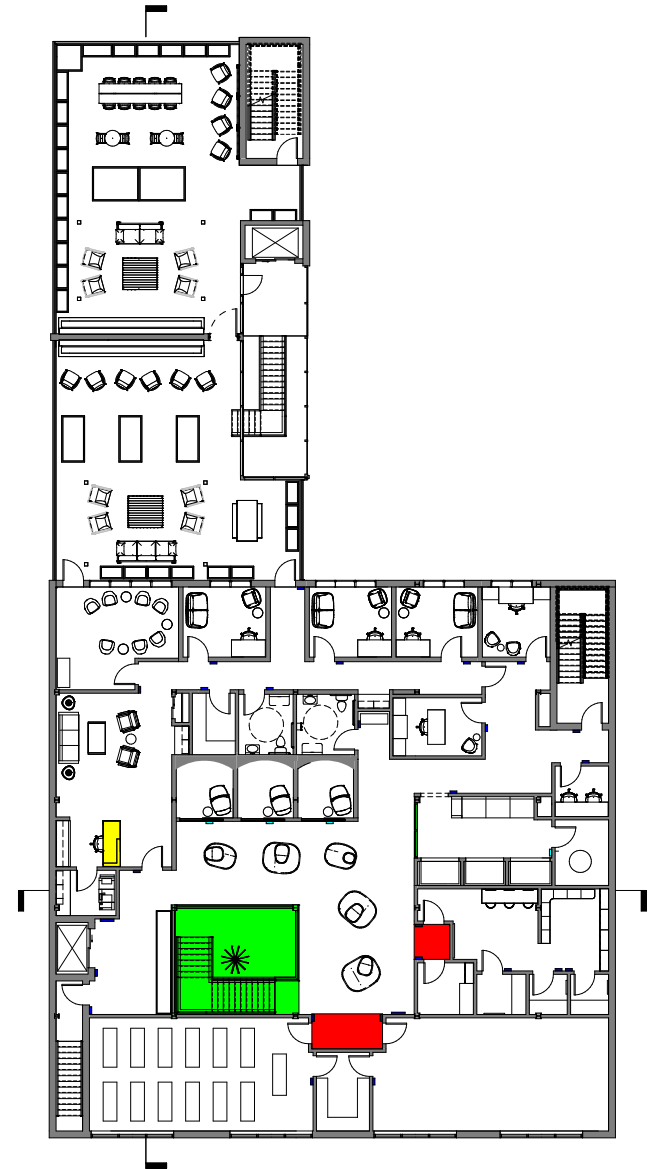
WAYFINDING STRATEGIES



LOWER LEVEL PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

Wayfinding strategies such as staff greeter stations, visual connections between spaces, and changes in ceiling height to define thresholds were used to help users navigate the building.

- Staff greeter
- Signage
- Visual connection
- Interactive signage
- Ceiling change

SUSTAINABILITY FEATURES

The Nest's design incorporates WELL Design Principles:



Natural and mechanical systems for ventilation and air sanitation to reduce indoor air pollution.



Tested and monitored to ensure cleanliness and less contaminants in water



Teaching kitchen to promote healthy habits and healthy food offered in cafe and in kitchenette areas.



Ample sunlight and high quality light fixtures.



Wellness classrooms and focal stairs to promote movement.



Various levels of privacy and relaxation zones for occupant comfort.



Open spaces, mothers rooms, wellness rooms, privacy areas, and mental health services to optimize cognitive and emotional health.

Sustainability Strategies

Mindful Materials

More sustainable materials were selected for the Nest. Products such as FSC-Certified wood, low VOC paint, and materials with a more sustainable life cycle were used.

Occupancy-Sensing Lighting Controls

Occupancy sensors were used to reduce the cost of lighting the building.

Daylighting

Natural day light was increased throughout the building to increase well-being and reduce energy consumption.

LED Lighting

LED lights were selected to reduce energy consumption.

Rainwater Harvesting

Rainwater is harvested for the water wall in the garden.

Waste Reduction

Coffee grounds and organic materials from the cafe are composted and used in the garden.

Low-Flow Plumbing Fixtures

Low-flow plumbing fixtures were used to reduce water consumption and cost.

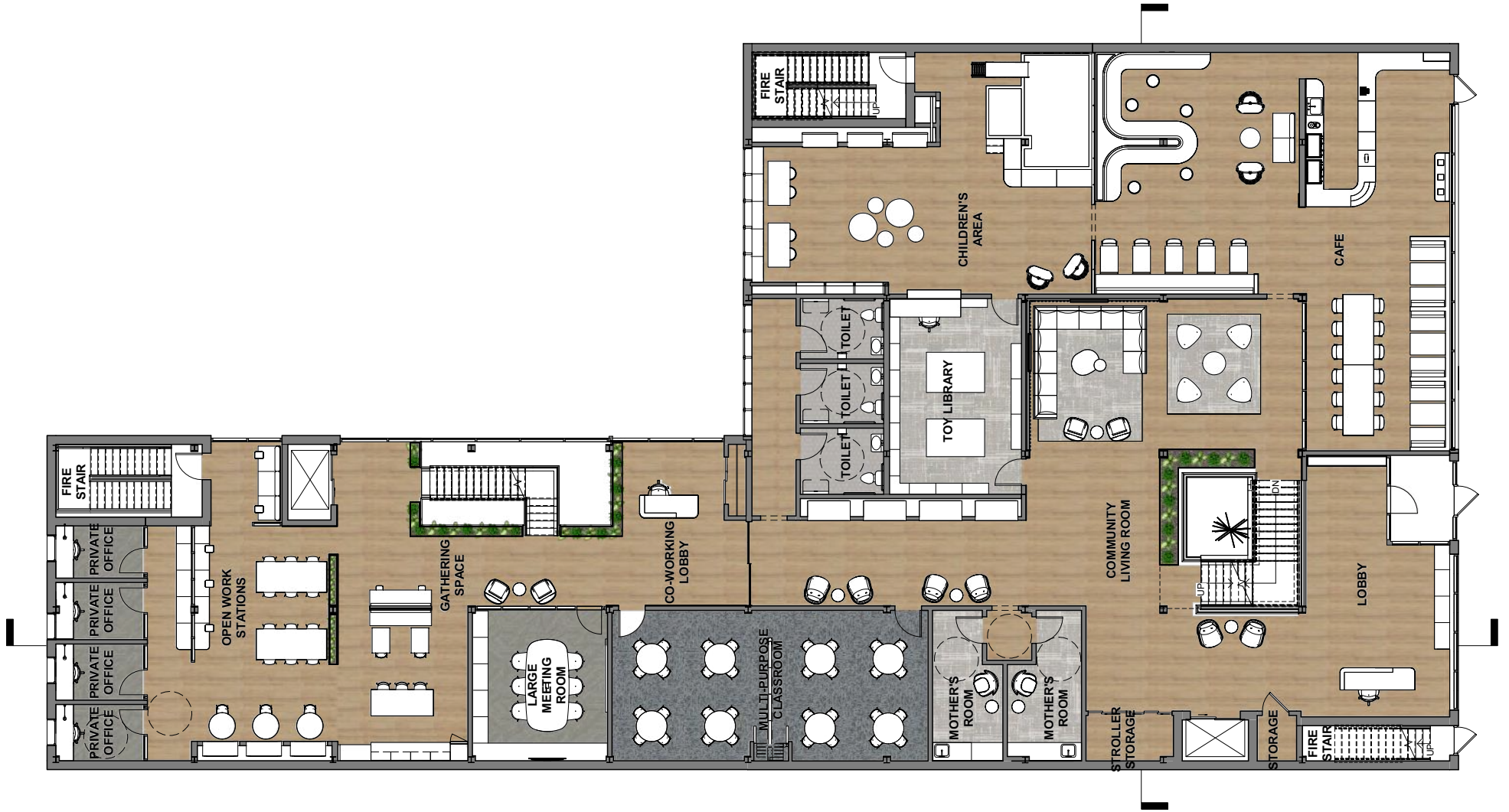


FINAL DESIGN

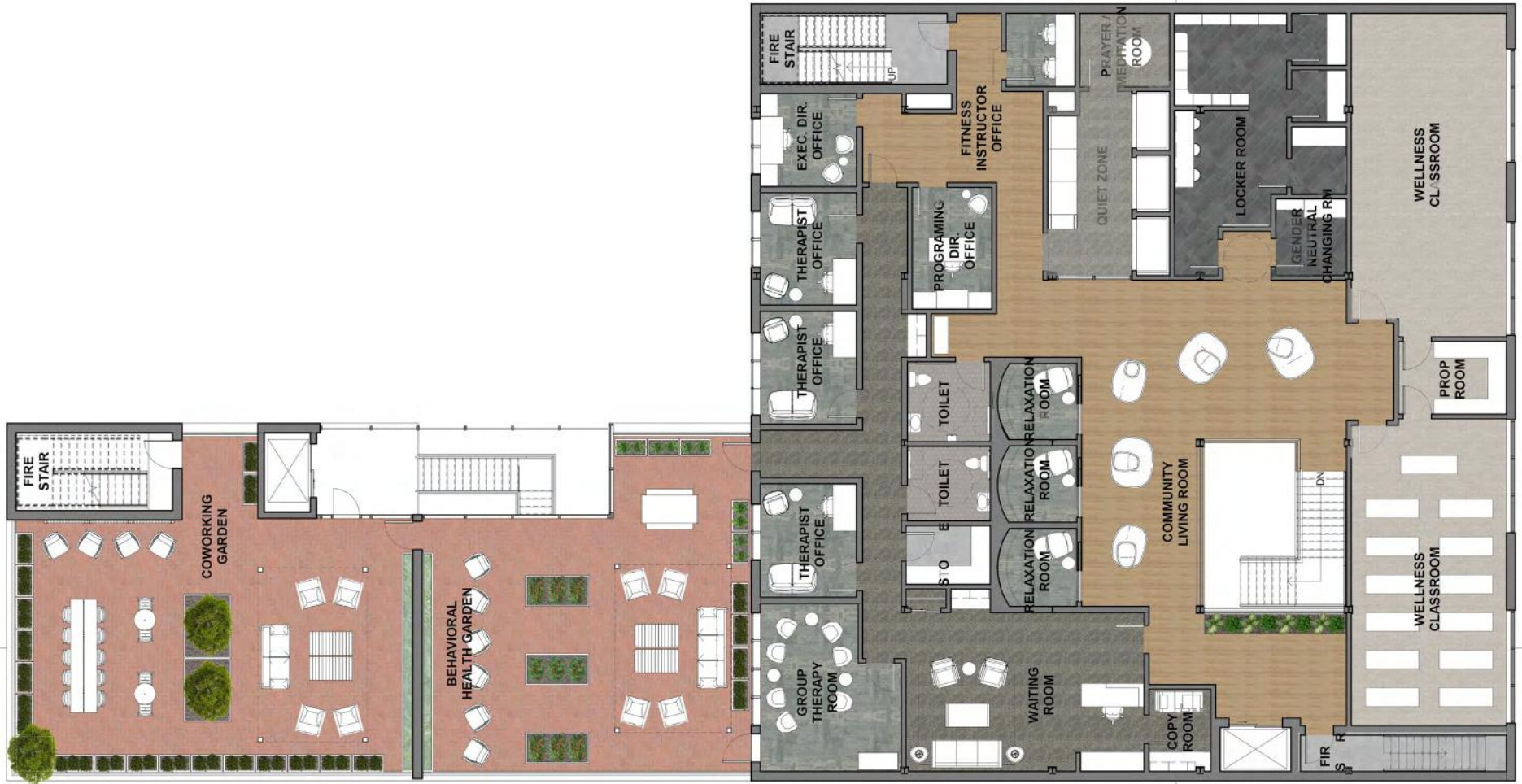




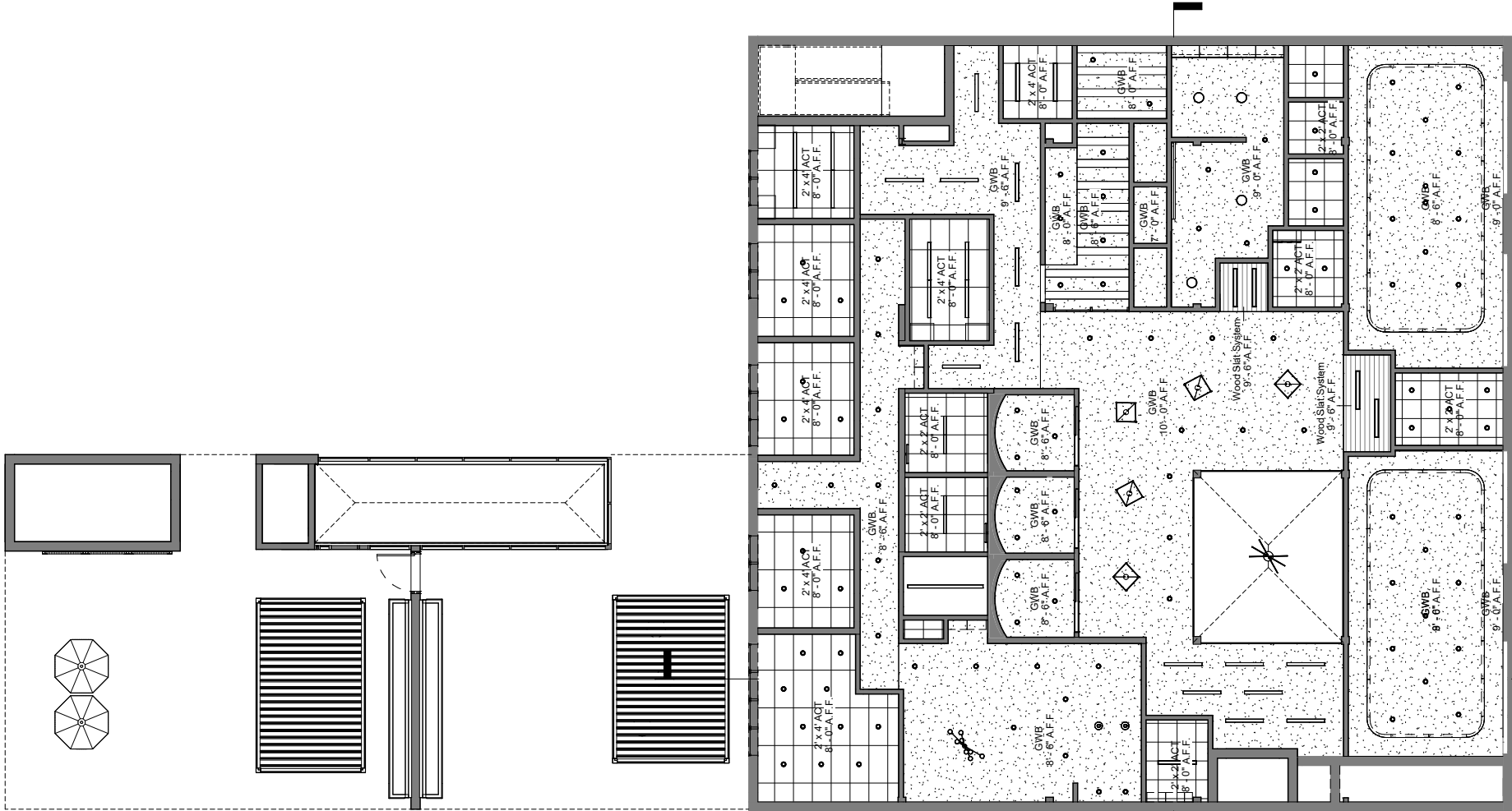
LOWER LEVEL PLAN



FIRST FLOOR PLAN
86



SECOND FLOOR PLAN



SECOND FLOOR RCP



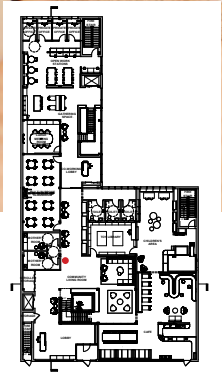
EAST SECTION





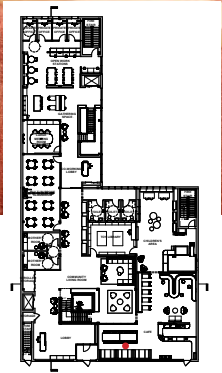


FIRST FLOOR COMMUNITY LIVING ROOM



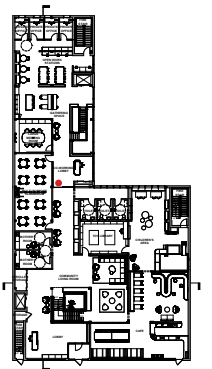


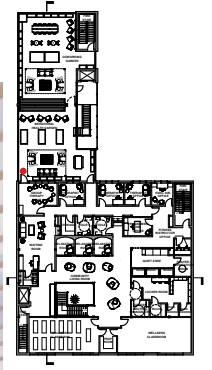
CAFE





CO-WORKING LOBBY

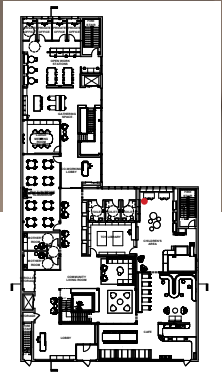




BEHAVIORAL HEALTH GARDEN

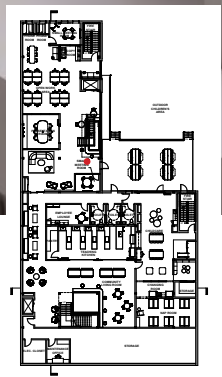


INDOOR CHILDREN'S AREA



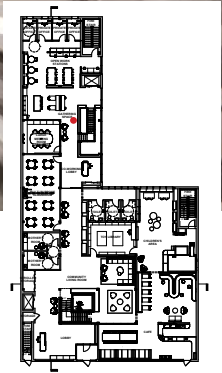


CO-WORKING LOWER LEVEL



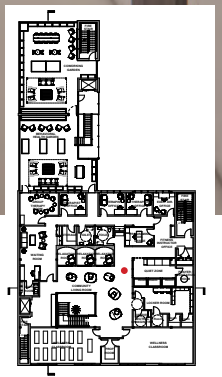


CO-WORKING GATHERING AREA



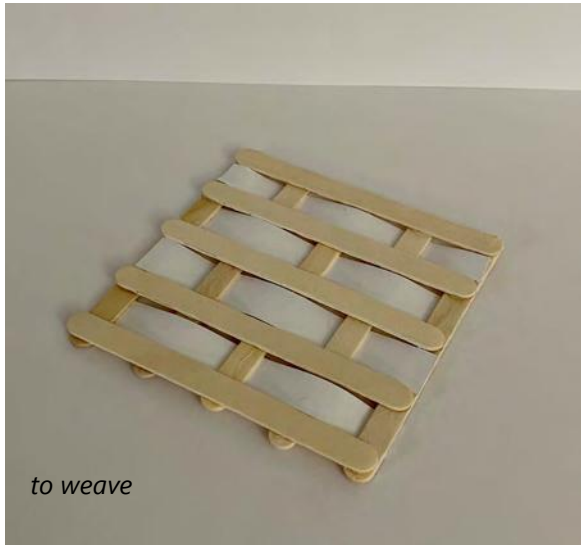


SECOND FLOOR COMMUNITY LIVING ROOM



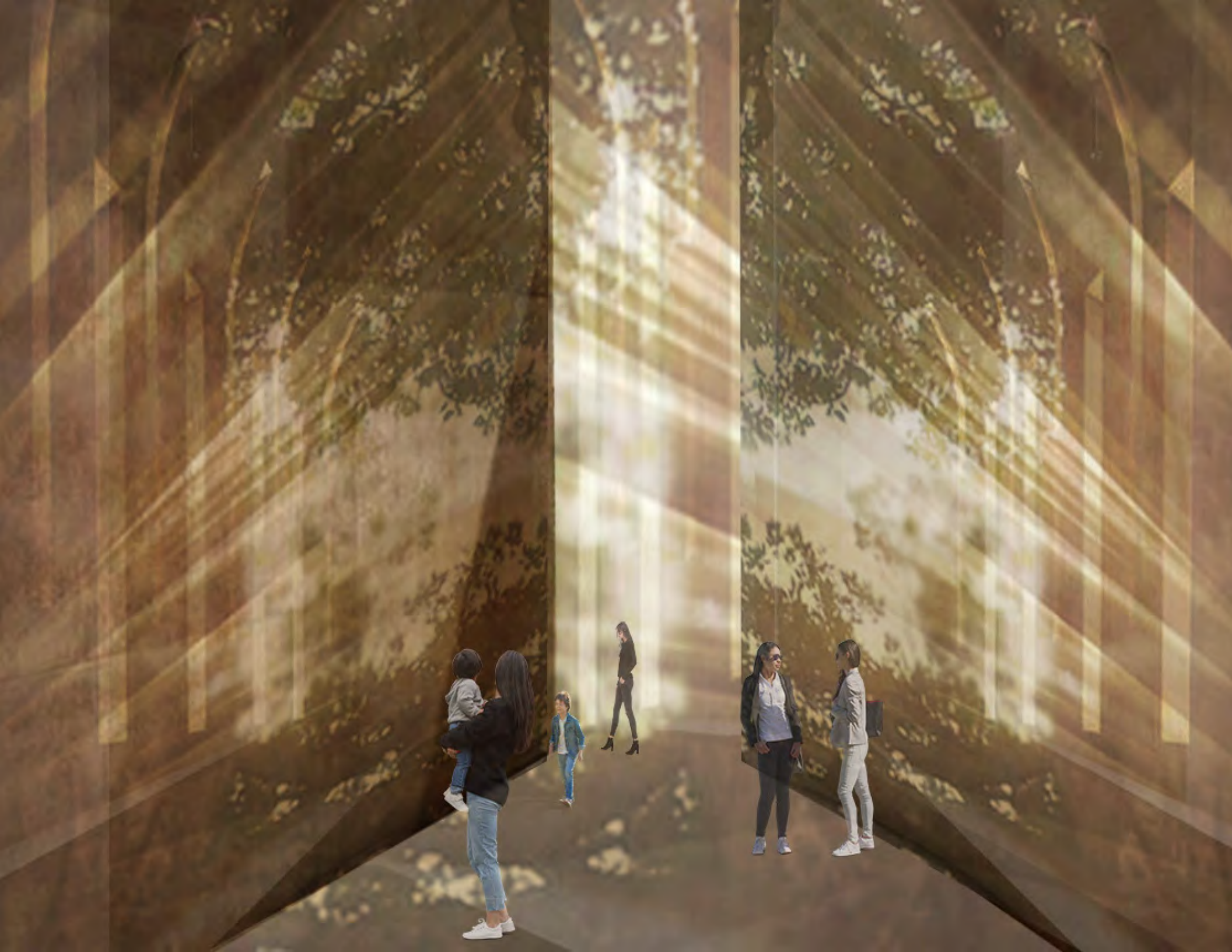
DESIGN PROBE 1: MATERIALITY





In this material study I considered Richard Serra's Verb List and how certain phrases lend themselves to empathetic design practices.

DESIGN PROBE 2: ATMOSPHERE



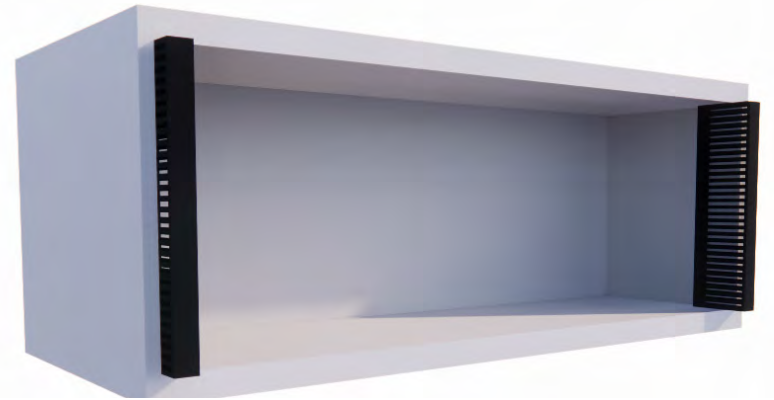
DESIGN PROBE 3: SCALE



LOUVERED SCREEN

PUBLIC / PRIVATE

To design with empathy means to design with an understanding of the user's needs and feelings. This led me to consider the need for adaptability. Empathetic spaces can be both open and private because users' needs can change throughout the day. These operable louvered screens give the user control over their space and accommodate a variety of uses and users.



DESIGN PROBE 4: EXPERIENCE



INSPIRATION IMAGES



FURNITURE SELECTIONS

LIVING ROOM FURNITURE



MOD SOFA
HBF



CHELSEA LOUNGE CHAIR
FLOKK LTD



PRONTO TABLE
HIGHTOWER



PLANES COLLABORATIVE
HAWORTH



KILO ISLANDS
HIGHTOWER



RO LOUNGE CHAIR
FRITZ HANSEN



NUEZ TABLE
ANDREU WORLD



AYRE BENCH
HIGHTOWER



STRAIN- LOW TABLE
PROSTORIA



DRY TABLE
HIGHTOWER



EDGE
BERNHARDT DESIGN



EGG CHAIR
FRITZ HANSEN



NAM NAM CHAIR
ICONS OF DENMARK

CAFE AND CHILDREN'S AREAS FURNITURE



LISSONI SOFA
FRITZ HANSEN



ENEALTZO943
STEELCASE



SLICE ROUND COFFEE TABLE
HBF



GE 15
GETAMA



LUCA GLIDER
MONTE



BLUEPRINT BLOCK TABLE
BERNHARDT DESIGN



NAUTICA SWING ARMCHAIR
EXPORMIM



DUAL



ETTA CHILDREN'S CHAIR
AGATI
122



BUZZIBALANCE
BUZZISPACE



ETTA CHILDREN'S TABLE
AGATI



EDITH POUF
BOLZN LAB



GENERATION
KNOLL

CO-WORKING FURNITURE



PLANES LT ADJUSTABLE BENCHING
HAWORTH™



LC5 SOFA
HAWORTH™



RIVERBEND SOFA
HAWORTH™



CHIP BARSTOOL
BLU DOT



LEVEL SIDE TABLE
ICONS OF DENMARK



FLYING CHAIR
VERPAN



SAARINEN EXECUTIVE CHAIR
KNOLL



NEST TABLE, HIGH COUNTER
HIGHTOWER



PLANES CONFERENCE TABLE
HAWORTH



POPPY LOUNGE
HAWORTH



CHLOE CHAIR
BERNHARDT DESIGN



BLUEPRINT ROUND TABLE
BERNHARDT DESIGN

THIRD FLOOR FURNITURE



LISPENARD SOFA
HERMAN MILLER



PARKER COFFEE TABLE
HBF



CROSSHATCH OUTDOOR CHAIR
GEIGER



LUNE SOFA
FRITZ HANSEN



FLOAT SIDE TABLE
BERNHARDT DESIGN



RAVEL
BERNHARDT DESIGN



BRECK LOUNGE AND OTTOMAN
HIGHTOWER



LINEAR STEEL SIDE CHAIR
MUUTO



PABLO OUTDOOR ARCHAIR
B&B ITALIA



PABLO OUTDOOR SOFA
B&B ITALIA



ALWAYS SIDE CHAIR
NAUGHTONE

LIGHT FIXTURES



CHESTER 29
VALAISIN GRÖNLUND



PLEAT BOX
MARSET



AKOYA PENDANT
RBW



ELIA OVAL PENDANT
LUMENWERX



STRAP PENDANT
DESIGN FOR THE PEOPLE



PRINT PENDANT
RBW



MINE PC SPACE
FARO BARCELONA



BALTO LINEAR
TECH LIGHTING



HILO 16 FLUSH MOUNT
TECH LIGHTING



AMBROSIA WALL SCONCE
MARSET



SOHO PENDANT
MARSET



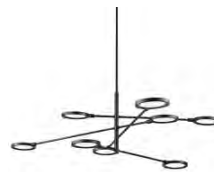
HARTAU TRIPLE
d'ARMES



ARM 6
VALAISIN GRONLUND



AMBIT PENDANT
MUUTO



SPECTICA 8 CHANDELIER
VISUAL COMFORT & CO.



ESSENCE TRIO LINEAR
VISUAL COMFORT & CO.



SUSPENCE P1.5 PENDANT
FRITZ HANSEN

SCRANTON POPULATION DATA

Population, 2020: 77,000

Median age, 2020: 37.3

Gender, Female: 49.7% (ACS 5 year average 2021)

Marriage Status (all genders):

- Married: 39%
- Never Married: 43%
- Widowed: 7%
- Divorced: 11%

Average family size: 3.3

Families as % of households: 56%

Married couples as % of all families: 63%

Birth Statistics:

- Teen Birth Rate: 18%
- Unwed births: 53%
- Unwed births on public assistance: 10.7%

Race and Hispanic Origin

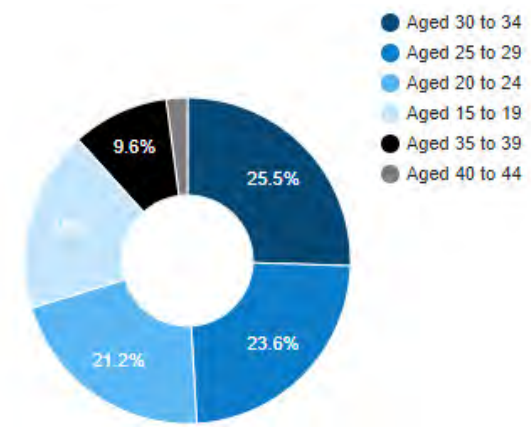
- White alone: 78.1%
- Black or African American alone: 5.6%
- American Indian and Alaska Native alone: 0.0%
- Asian alone: 5.0%
- Native Hawaiian and Other Pacific Islander alone: 0.2%
- Two or More Races: 8.0%
- Hispanic or Latino: 16.0%
- White alone, not Hispanic or Latino: 69.9%

Occupations (All Genders)



Data USA, Scranton 2020 Occupations

All Births, Age of Mother



Town Charts, Scranton

Income & Poverty

Median household income (in 2021 dollars), 2017-2021- \$44,161
 Per capita income in past 12 months (in 2021 dollars), 2017-2021- \$25,132
 Persons in poverty: 20.1%
 Lackawanna County Food Insecurity: 13.1%

Healthcare

94.1% of the population of Scranton, PA has health coverage
 41.9% on employee plans
 28% on Medicaid
 12.5% on Medicare
 10.2% on non-group plans
 1.41% on military or VA plans

Primary language spoken at home: English

Commuter Transportation Methods (2020):

Drove Alone (73.2%)
 Carpooled (13.5%)
 Walked (6.05%)

	Reasons for not getting mental health treatment (among respondents who needed but did not receive)					
	Couldn't afford it	Didn't know where to go	Took too much time	Embarrassed	Too far away	Didn't think it would help
Non-Scranton	48%	17%	12%	17%	2%	18%
Scranton	47%	20%	0%	13%	7%	27%
Total	48%	17%	10%	16%	2%	20%

	Been told by health provider that you have...				
	Depression	Anxiety / Stress disorders	Bipolar disorder	Schizophrenia	Substance abuse problem
Non-Scranton	14%	15%	2%	1%	4%
Scranton	18%	20%	3%	2%	4%
Total	15%	15%	2%	1%	4%

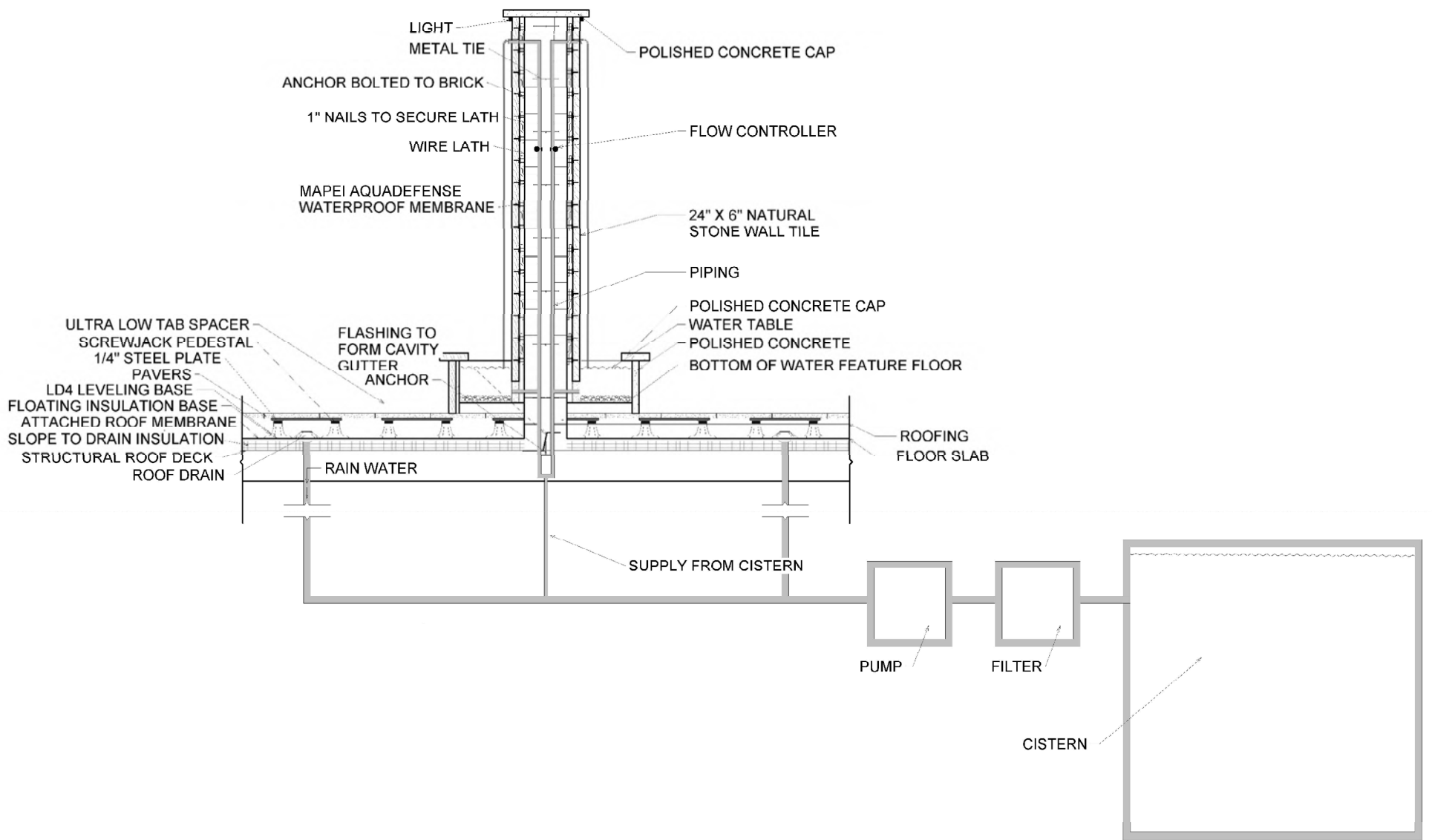
	Mental Health		
	Felt so sad or depressed that you stopped doing usual activities	Felt down, depressed, or hopeless 5+ days in the past 2 weeks	In the past 12 months, needed mental health treatment or counseling but did not get it
Non-Scranton	13%	9%	6%
Scranton	14%	9%	8%
Total	13%	9%	6%

WATER WALL DETAIL DRAWING

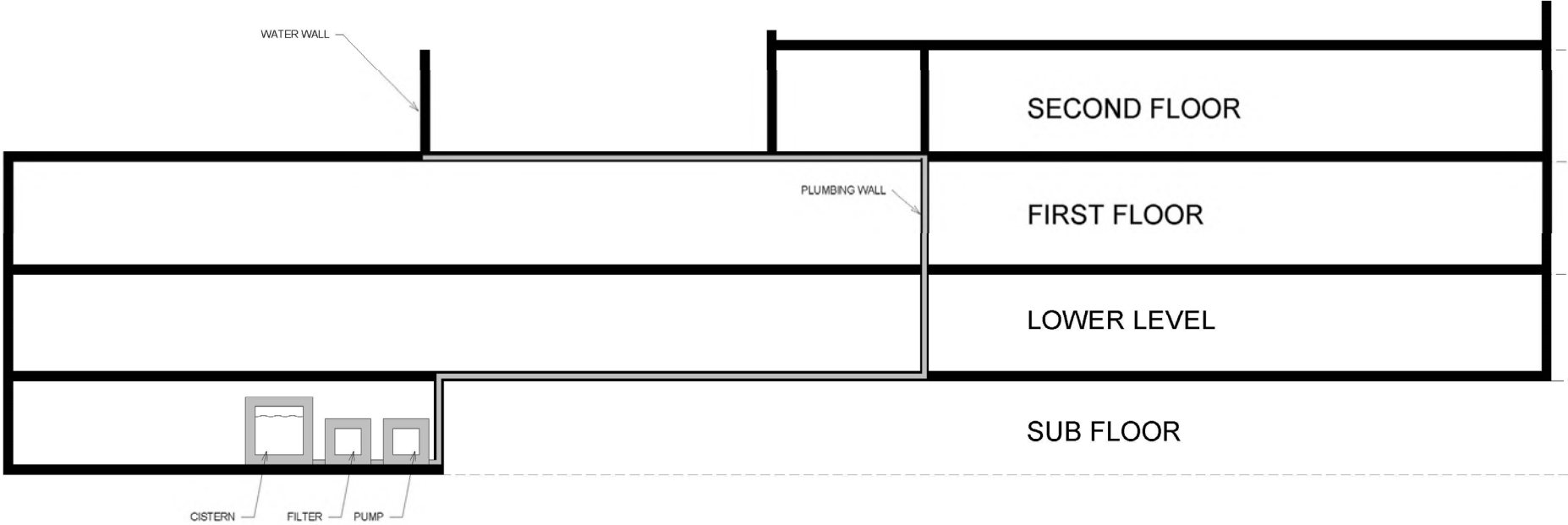
INSPIRATION







LOCATION OF THE MECHANICS





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