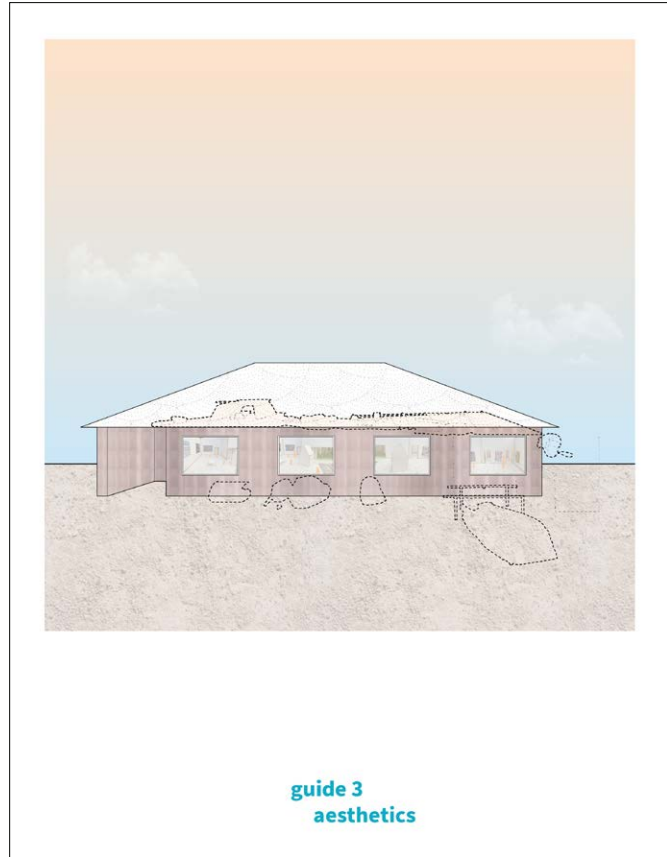


spatializing safety

dipal mistry
syracuse university
school of architecture

thesis project

final book



contents

- Thesis Preparation
 - Research
 - Site
 - Issue
 - Conclusion

- Design Semester
 - Goals
 - Guides
 - Application
 - Limitation

statement

Global inequities are most emphasized through the narratives of the most neglected people in society. Thus, to properly “develop” the global south we need to study the harsh realities of woman-identifying people of color in unstable states. This thesis will aim to demand that the inequities of women identifying people, specifically in South Africa, are combated through the reformation of the built environment.

preparation

To learn more about what people think about living in Johannesburg, a range of ethnographic research was conducted, including interviews with people who have lived or are living in south africa, reading stories shared online, watching documentaries, and talking to professors and shelter leaders in Johannesburg. Some common themes I saw that surprised me were fear within home, fear of being alone, and fear of people that are known and trusted.

production

For the design phase it was important that the needs of individuals are met, without the architecture being prescriptive or making problematic assumptions. In order to create a system that is less static, I wanted to experiment with creating an architectural network within a city that provides people with the agency to create their own space. Instead of designing a single building, I wanted to design the basis for people to build their own network and safe spaces.



The historic context of South Africa reveals many instances of instability that have resulted in massive gender, race and economic inequities. The fragility of the South African government paired with the traumatic past of Apartheid is visible in the current economic system. Where a minority of the population participates in a capitalist heavy, global economy, the majority contributes through low wage labor. There is a heavy divide between the socioeconomic groups within South Africa.

This dualist system, along with other factors such as unhealthy public sentiment towards women, lack of women empowerment, and economic repression has led to another crisis of increased hate crimes directed towards women. A study from gender links showed that about half of the woman identifying population, of the Gauteng region of South Africa, are predicted to have experienced some form of violence. There is a high level of recorded violence, yet a severe lack of resources, such as shelters and spaces of refuge.

Violence can be physical, sexual, emotional, financial, or structural. And it can manifest itself through different manipulative methods. Different forms of violence results in varied trauma on the people being violated.

People who experience violence are going to have different needs, because resulting trauma from acts of violence will vary person to person. This definition of violence will later help determine the meaning of safety.

Gender Inequity



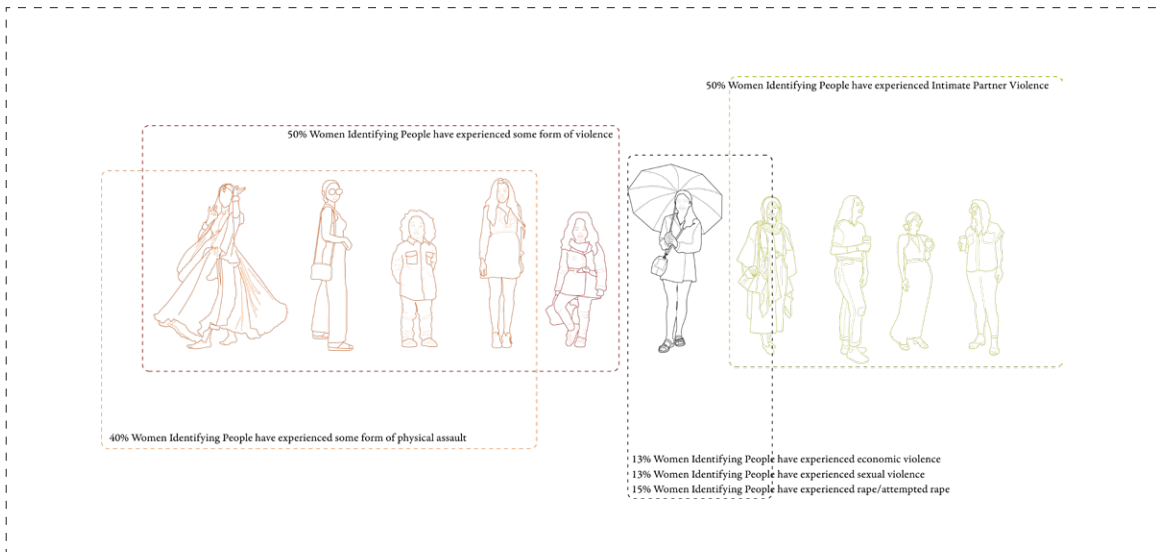
Racial Inequity



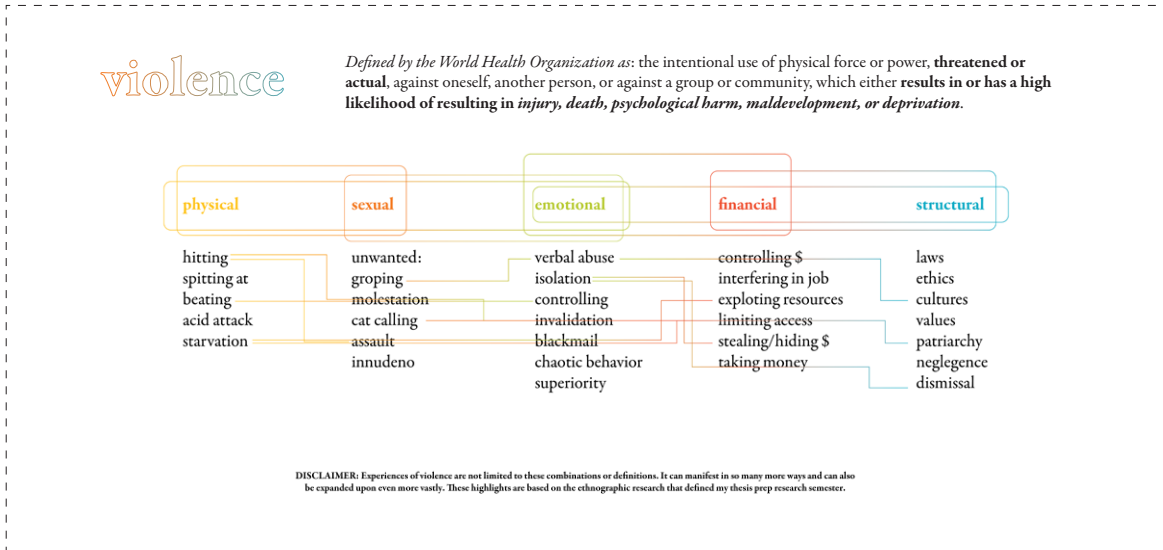
Apartheid



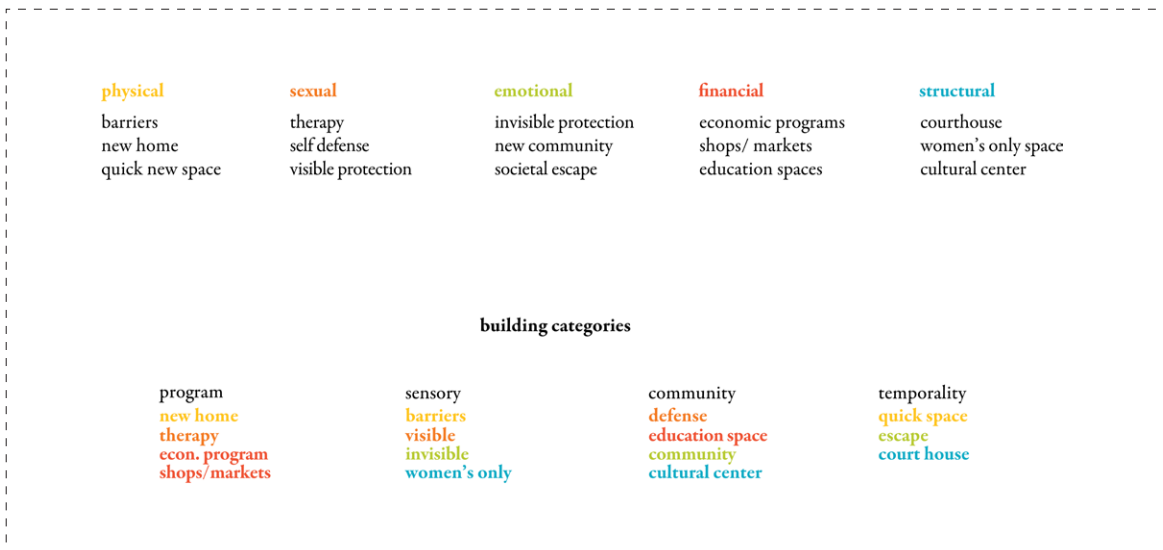
Femicide



gender statistics Guanteng



types of violence



buildings to combat violence

To learn more about what people think about living in Johannesburg, a range of ethnographic research was conducted, including interviews with people who have lived or are living in south africa, reading stories shared online, watching documentaries, and talking to professors and shelter leaders in Johannesburg. These are some of the words and themes that stood out to me, and this shows that there is a general public perception of feeling unsafe. Some common themes I saw that surprised me were fear within home, fear of being alone, and fear of people that are known and trusted.

To code the interviews I documented topics frequently mentioned or emphasized in the different interviews and stories, examined their associated meanings, connected these meanings to secondary sources, typically data based and peer reviewed studies, and then found architecture that aims to address those specific problems around the world.

interviews and coding

“Even public spaces like the post office are no longer safe”

“The home is not even safe sometimes”

“It’s crowded in the city so people can see you”

“I trusted him...later woke up in the hospital”

“I was raped...by a boy who I thought was my friend”

“It’s a nice area but you still have to be aware”



“It’s crowded in the city so people can see you”

“I would make it safer”

“I won’t walk alone at night”

“A man at home came to me...and raped me”

“Lock my room door to feel a tiny bit safe”

“I refrain from playing music too loud...”

“Did not want the stigma attached to being a victim”

“I was lucky to not have experienced anything before I was 10 years old”

coding exercise

Things that emerged in	Investigative	Contextualize	Interpretive	Code
Code: What is the Center?	Justice & Change	Connection to broader issues	Interpretive	Code: What is the Center?
The value of food	Food Security Cultural Value Food Justice	The way food is prepared, cooked, eaten, and shared is an economic function	Interpretive	Code: What is the Center?
The Center's power negotiation	Gender Equity Power Relations	Economic Segregation without affecting security	Interpretive	Code: What is the Center?
The way safety is defined	What is safety?	The experience of the many women who were sexually assaulted by people known to them in the building, which brought them to the shelter, and they were not safe from people they knew	Interpretive	Code: What is the Center?
Building of safety within city	Why is safety urban?	Most people in urban and high-density areas are not safe from people they know	Interpretive	Code: What is the Center?
Economic freedom through self-help business	Are women in economically free markets by women?	Gendered economic power relations of capital being used in a way that women in abusive situations	Interpretive	Code: What is the Center?

“no enforcement”

“throw rocks on your car to break it down”

“Many [women] remain marginalised from the economic and social mainstream”

interviews and coding



Center for Women- Masai Village, Tanzania
Education, Community, Cultural Center



Women's Opportunity Center- Kayonza, Rwanda
Economic Enrichment, Community Center



InsideOut School- Abeteniim, Ghana
Education Center



From Landscape to Rooftop- Kisumu, Kenya
Community, cultural Center



Urban Womb- Seoul, South Korea
Community, Economic Enrichment, Education Center



Shelter for Victims- Tel Aviv, Israel
Domestic Violence Shelter, Support Facility



Women's Education Center- Nowon-Gu, South Korea
Community Center, Women's Shelter, Support Facility



Maternal Women's Shelter- Grogdigran, France
Women's Shelter, Support Facility



Women's House of Ouled Merzoug- Idelksane, Morocco
Community, Education Center



Shelter for Women Victims of Violence- Uruapan, Mexico
Domestic Violence Shelter



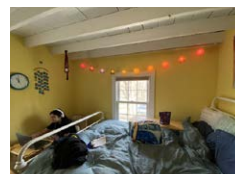
KWIECO Shelter House- Moshi Urban, Tanzania
Community Center, Shelter, Support Facility



Beyond Survival- Teknaf Upazila, Bangladesh
Community Center, Support Facility



Mnencasino- Johannesburg, South Africa
Cultural Center



Shelter for Women- Johannesburg South Africa
Domestic Violence Shelter



Coven Coworking Space for Women- St. Paul, USA
Economic Enrichment Center, Support Facility

precedents

In discussions with professors and shelter leaders, I learned about the existing shelter system, and the flaws in the system. Some parts of the conversation that stood out to me were: that there is a lot of centralized trauma in shelters because of the lack of alone space. People in shelters often do not have access to resources: such as education, jobs, daycare, and fresh food. Additionally, male identifying children over the age of 15, are not allowed to live in the shelter with their moms resulting in child neglect.

conclusions from academics

what she learned from interviews

leaving a support circle, family friends etc, is a last resort

there are shelters in cities but there's not enough

there is very little space per person in these shelters as is

in shelters multiple people live in the same dwelling

shelters are expensive and rule heavy to build

there is a lack of sustained investment

no support for children, especially male children

there is a lot of centralized trauma in one space which leads to more instances of emotional violence

how she thinks spaces could operate better

people could share existing abandoned homes

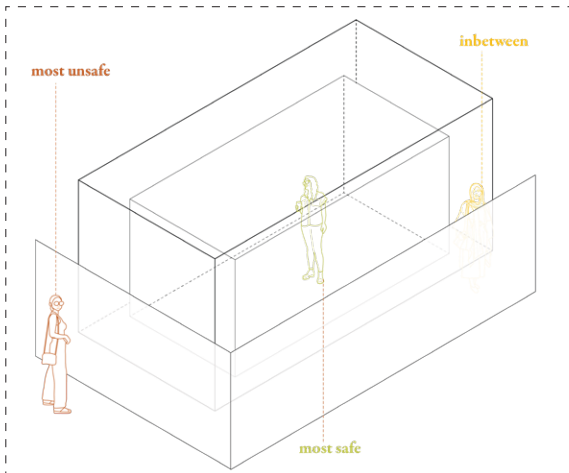
people can live with multiple families but need space

there needs to be an economic enrichment space

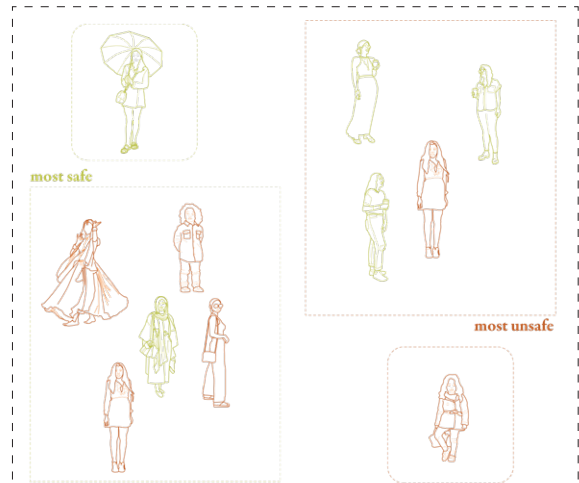
people get stuck in the homes because they have nowhere else to go

having lots of spaces instead of one central space

how to still provide a home for people looking for them



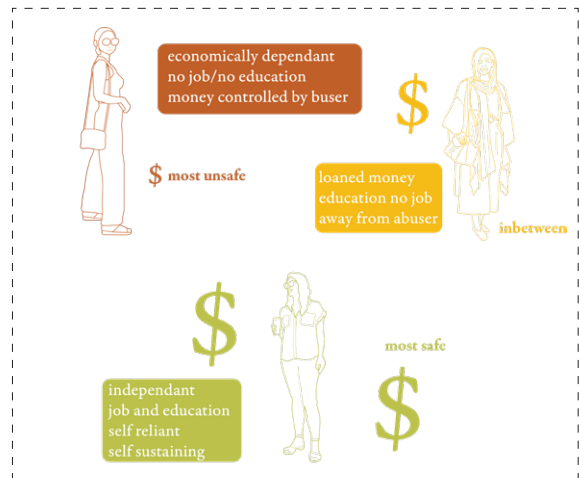
Enclosure: People can feel safe when hidden/ enclosed within architecture. Additional layers of enclosure may make a space feel even safer. The scale of the enclosure is important, different size spaces effect the perception.



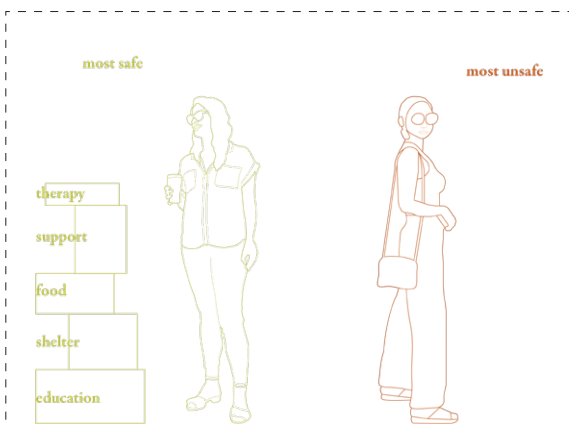
Visibility: Some people feel more safe when they are within crowds of people, others feel more safe in intimate settings. People may also want to have all of their surroundings within sight to be able assess them.



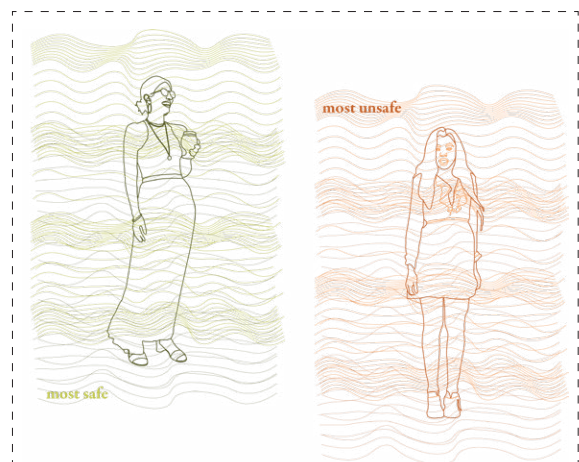
Familiarity: Some people need to feel comfortable with their surroundings. The sense of familiarity might be what makes some comfortable. For others, the familiarity might be triggering and unsafe as it brings back the trauma.



Economic Freedom: People who have experienced financial manipulation, or have a situation that requires them to leave their home need a way to be financially independent in order to function without their abuser.













Access to Necessities: People who have experienced trauma, especially abuse will often need a space to recover, and be able to function on their own. They might need therapy, education, access to financial help and more.

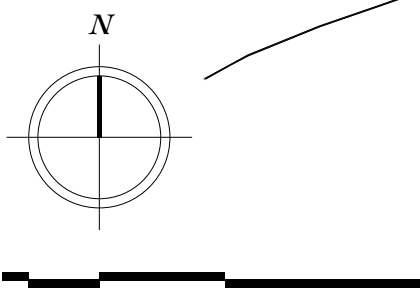
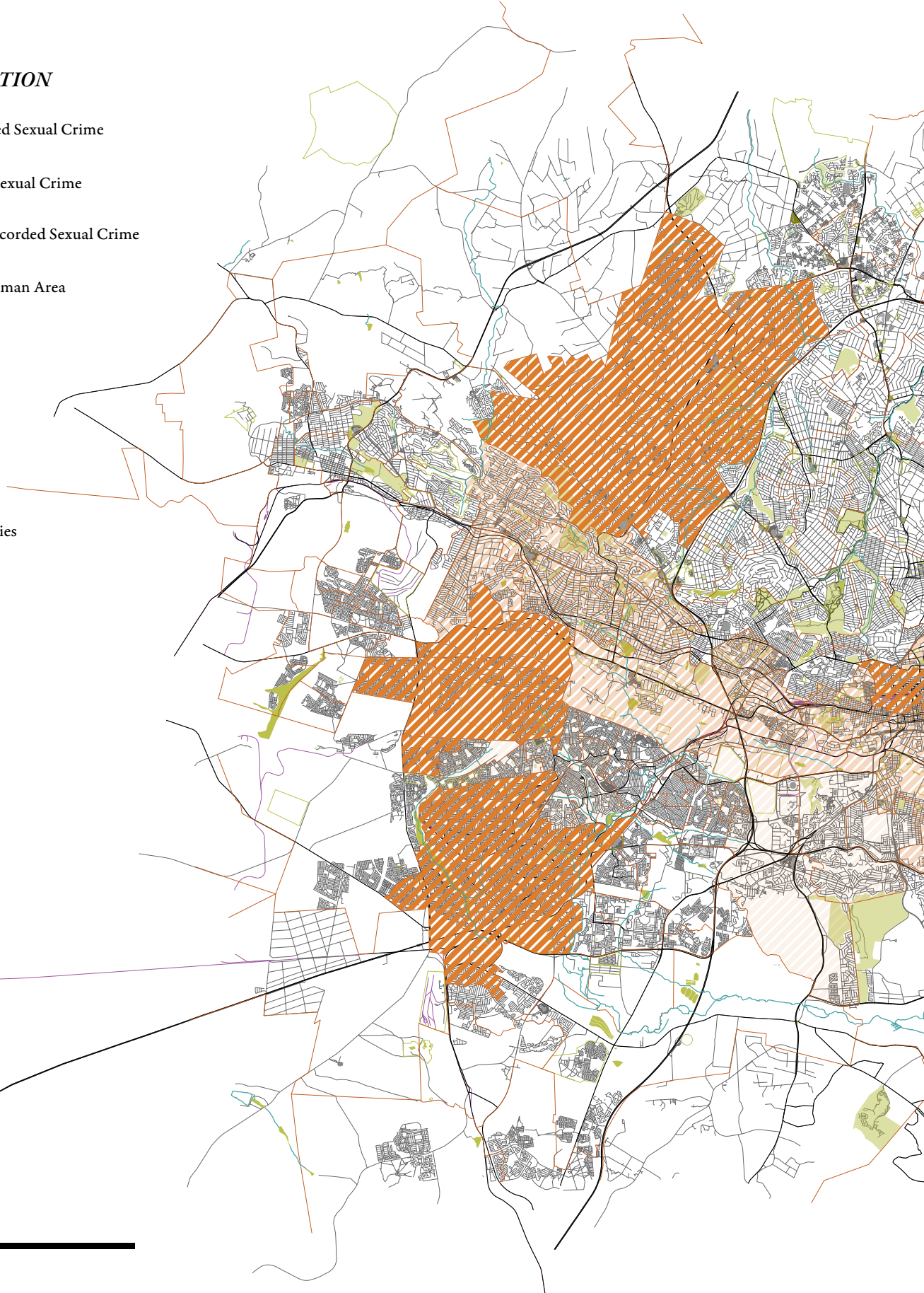


Noise: Some people feel safest when they cannot be distracted by any of their surroundings. Some people are also scared of loud noises, flashing lights, and anything that might clog their sense. Others need noise.

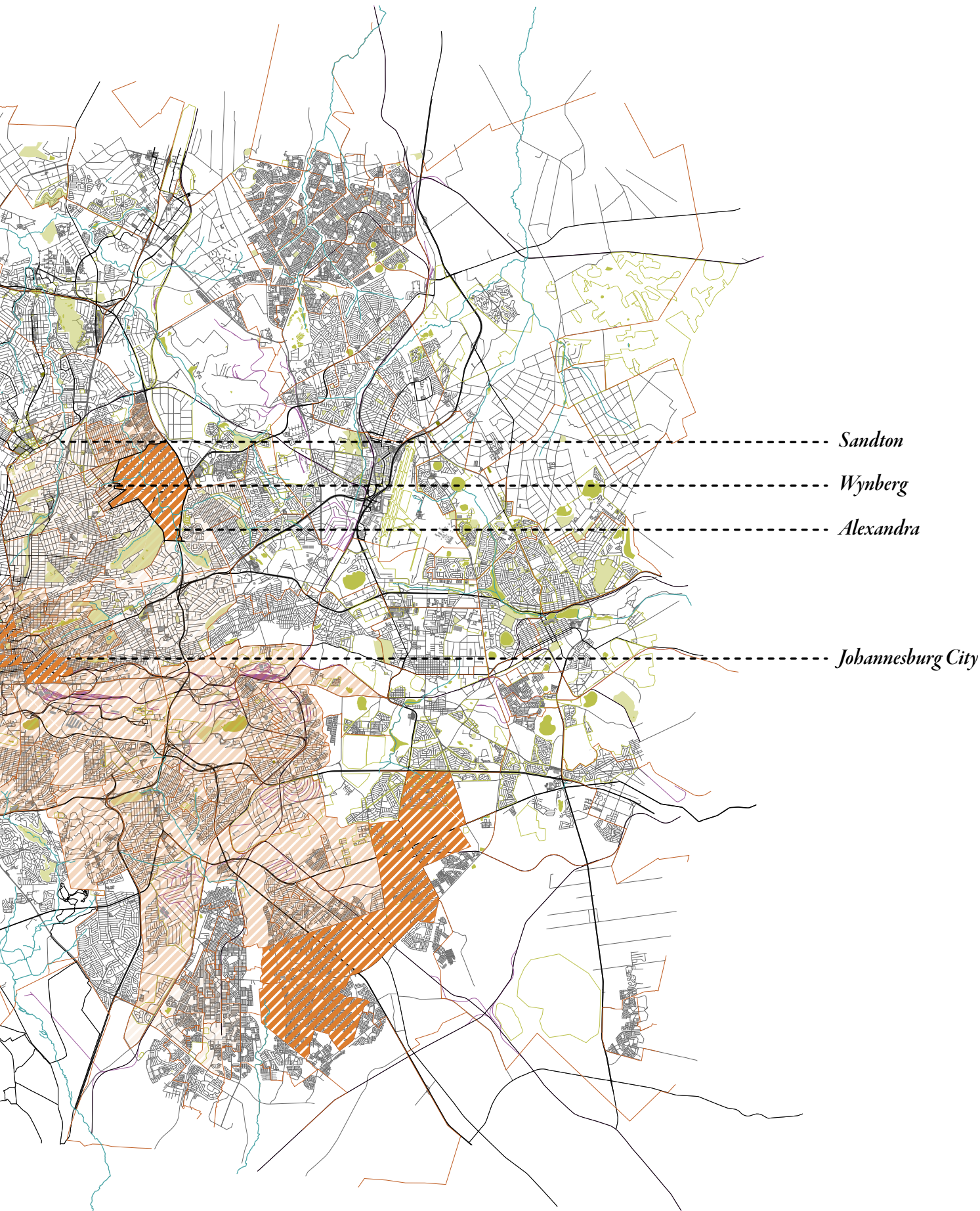
The site that will be used to propose intervention in is Johannesburg. This map shows the concentration of recorded sexual crimes around the city and has a complicated history due to forced resettlement and segregation during Apartheid.

KEY INFORMATION

-  Extreme Recorded Sexual Crime
-  High Recorded Sexual Crime
-  Medium-Low Recorded Sexual Crime
-  Natural/Non-Human Area
-  Waterways
-  Major Routes
-  Roads
-  Railways
-  District Boundaries
-  Site Typologies



From this map and other research I determined that the site I wanted to work in was Alexandra because it has a high level of recorded sexual crimes,

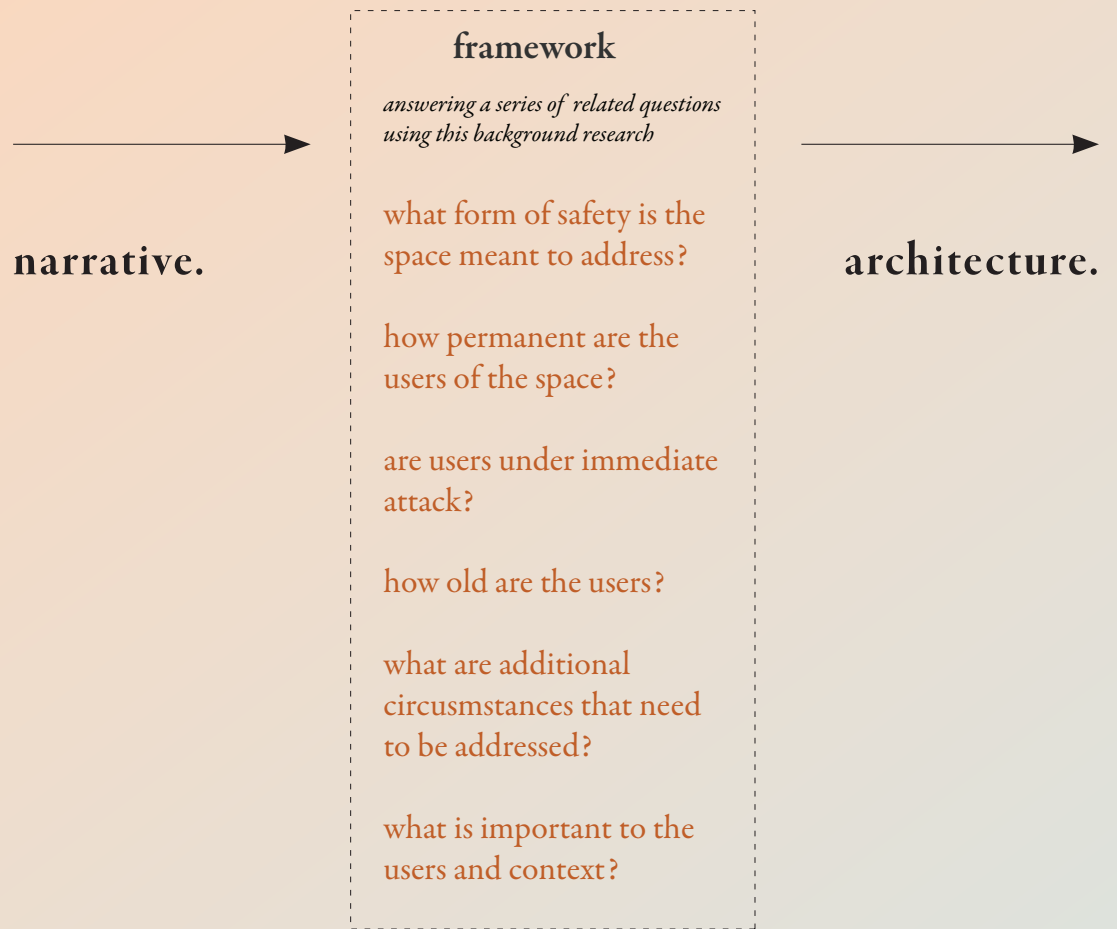


Sandton

Wynberg

Alexandra

Johannesburg City



For the design phase it was important that the needs of individuals are met, without the architecture being prescriptive or making problematic assumptions. In order to create a system that is less static, I wanted to experiment with creating an architectural network within a city that provides people with the agency to create their own space. Instead of designing a single building, I wanted to design the basis for people to build their own network and safe spaces.

Using the definitions of safety, and the needs that were expressed by people through interviews and shared stories, a series of design guides were created to help people design and build safe spaces according to their needs. The current collection of guides is limited to the narratives I was able to collect in my short research period.

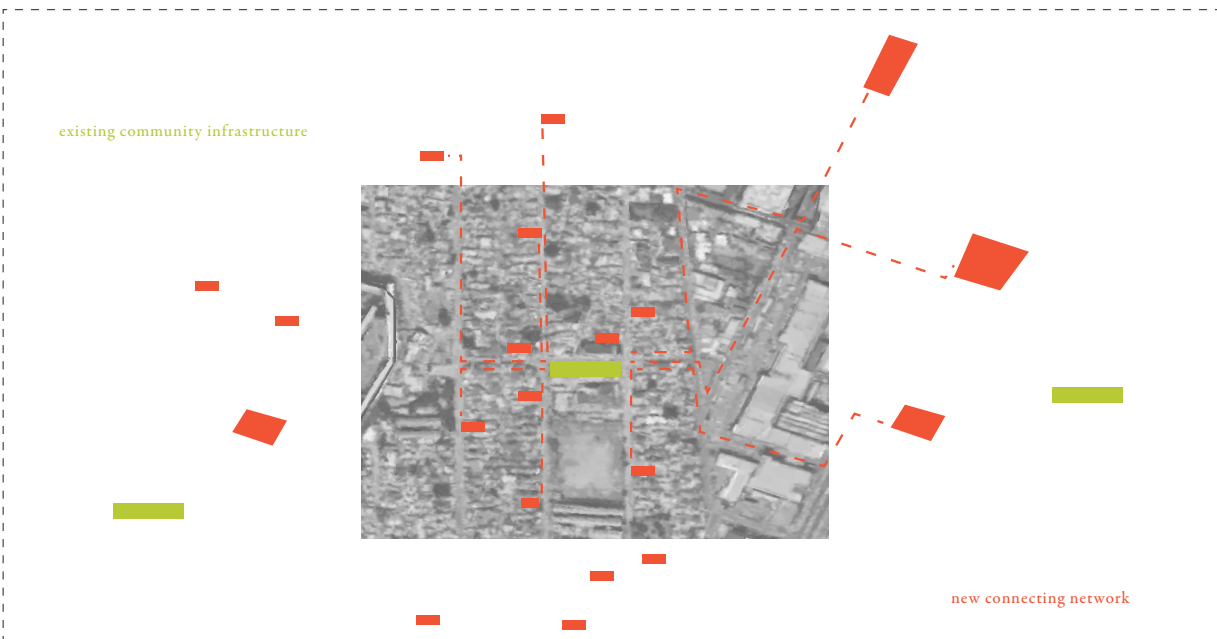
Each of the booklets has a series design options, and construction methods for people to choose from to build their own space. Additionally, in the guides there are places to source the materials from, places like recycling facilities. This series provides users with options for how to think about circulation, program placement, and privacy through different built means.

Additionally, a website was created for users seeking safety to input their narratives and output a series of suggested guides to build their own safe space, while still being able to access the other guides, so people have agency to create their own space

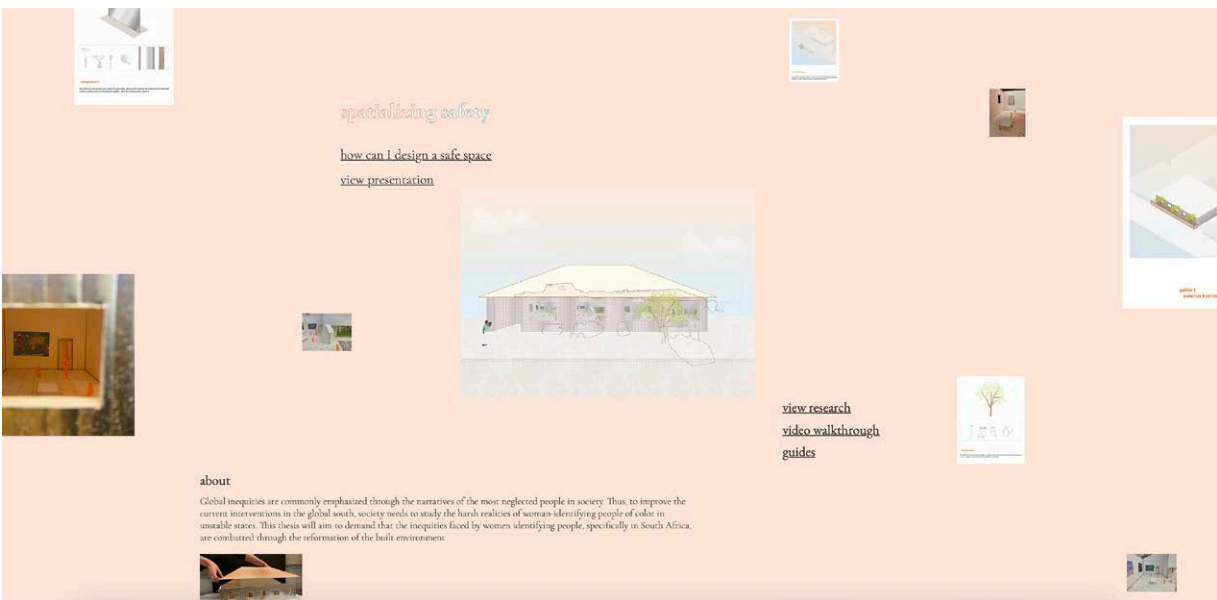
design phase

	Single Mom Domestic Violence	Woman Domestic Violence	Woman Past Physical Assault	Single Mom Past Physical Assault	Woman Feels Unsafe in Home	Woman Feels Unsafe in Public	Woman Under Current Threat
Programmatic Need	Childcare Therapy Own Space Job Space	Group Space Job Space Education Escape Space	Therapy Group Space Medical Space	Childcare Therapy Job Space Group Space	Group Space Own Space Escape Space	Hiding Place	Escape Space
Spatial Condition	Hidden Quiet Familiar Comfortable	Hidden Quiet Familiar Comfortable	Communal Visible Comfortable Clean	Engaging Therapeutic Clean Space	Hidden Quiet Familiar Comfortable	Hidden Comfortable Enclosed	Hidden Enclosed Communal
Temporality	Permanent	Permanent	Temporary	Temporary	Permanent	Permanent	Temporary
Urgency	Immediate	Immediate	Less Urgent	Less Urgent	Immediate	Immediate	Immediate

different needs- different people

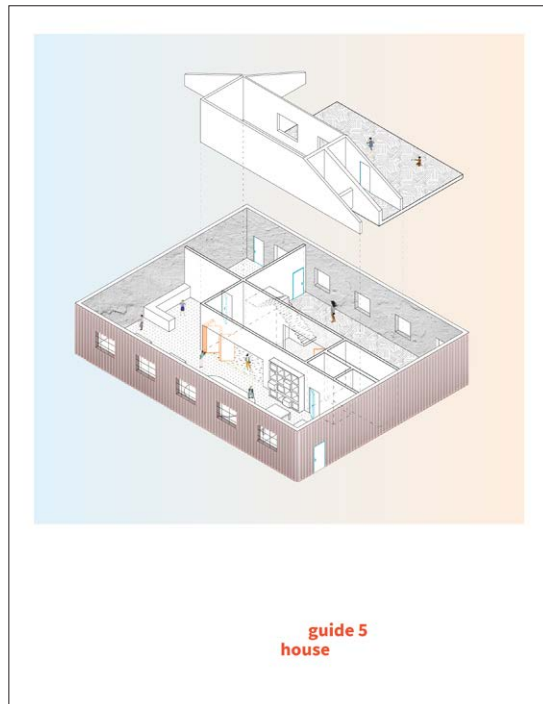
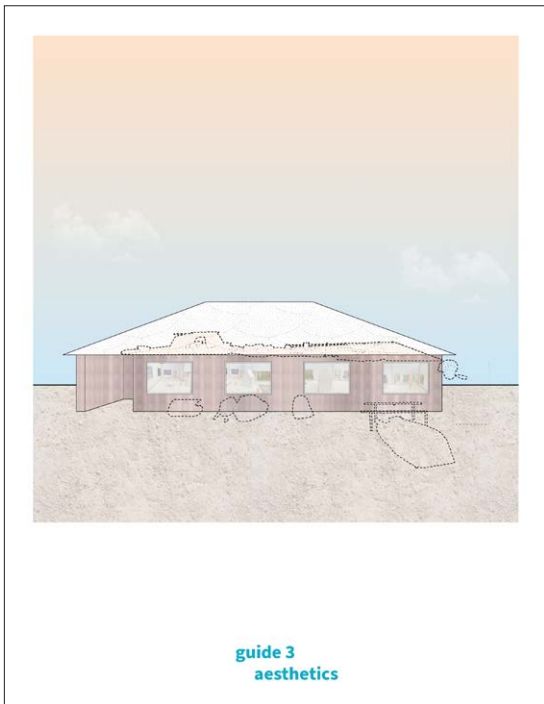
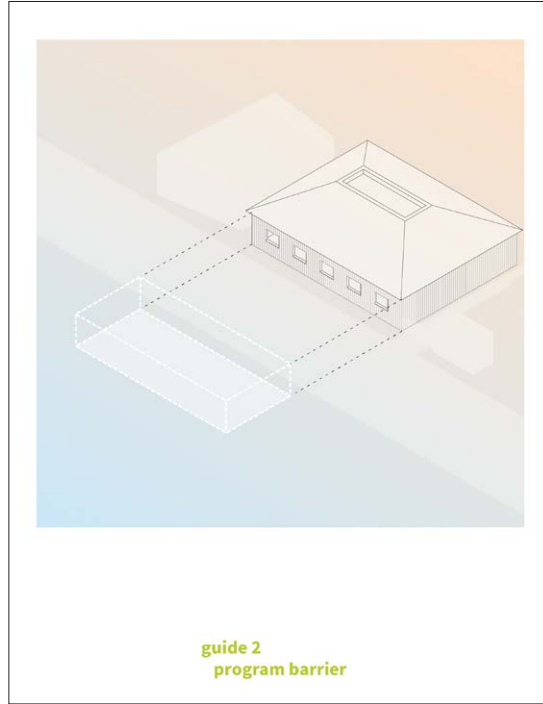
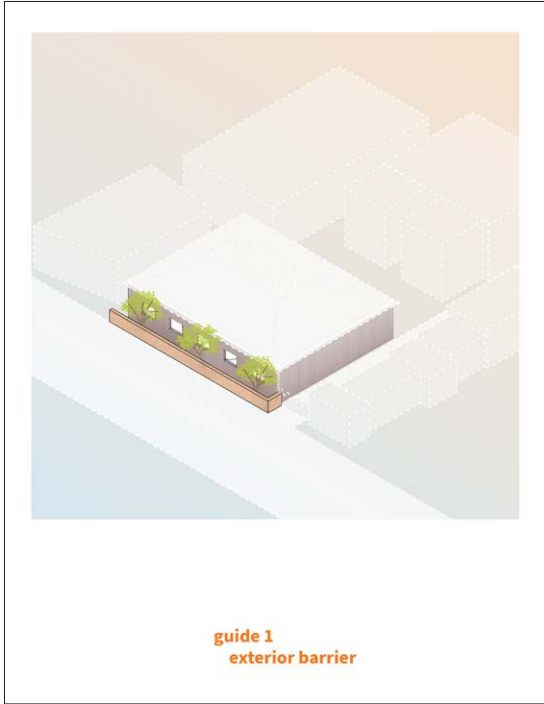


network and connection



website image

On the website there is a section, called “How can i design a safespace,” that allows users to answer a series of narrative questions to provide people with guide suggestions that they can use to construct or seek out their own safe space. Additionally the website is set up to be a growing database of design and construction resources. The website is still being polished and refined, but under the view presentation link you can view this whole presentation.



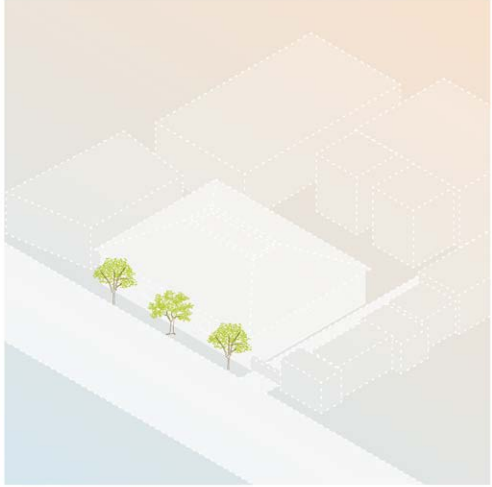
SEE WEBSITE FOR MORE

exterior barrier

contents: material barrier (wall)
foliage barrier (trees)
physical barrier (gate)



this guide is for how to create a barrier between the home and the street through material building, it is purely about boundary, the different options provide space from the street, while also mitigating noise.



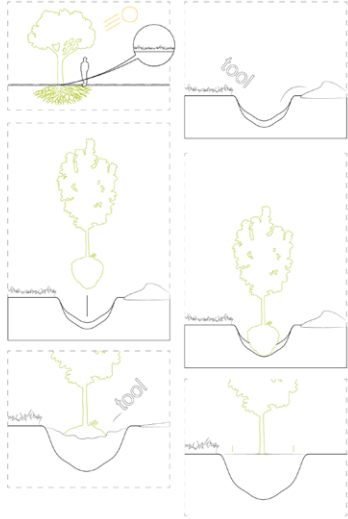
foliage barrier

the foliage barrier helps integrate the natural environment into this part of Alexandria, as greenery is lacking from the area, the foliage is also used as a way of creating a more subtle barrier from the street.




components

the different components to build this are listed above and it would be important to measure and record the amount of material needed, the metal sheets



assembly

this option is for people seeking a barrier between their home and the street without needing to interact with other people, it is purely about boundary, the different options provide space from the street, while also mitigating noise.

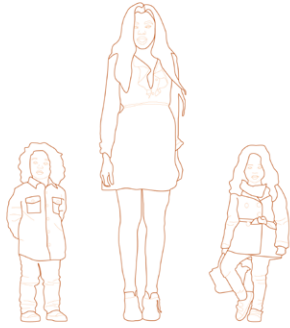
breakdown of each guide

house design example

I proposed an example home using a combination of these guides and some of my collected narratives as tools to mold the components of the building. This spatial example is a home for a small family, and a daycare facility for the community. The daycare creates a buffer zone between the house and the street to form another layer of safety.

The lofted home provides a space for a small family to live, work, and educate. The daycare space allows for the people living in the home to drop off the kids and go to work, or even work and run the daycare space. Additionally the different methods of circulation allow for the spaces to merge while still keeping the home offset and private. Different entryway schemes to the different spaces also allow for a buffer between the public and the private. Barrier and aesthetic methods, such as metal siding and a pitched roof allow for the home to become more durable and also create an aesthetic basis for the network to follow to subtly connect the houses throughout the existing neighborhood. Subtle changes such as these allow for the architecture to exist cohesively with the context and still allow people to be embedded within the context. These changes also allow for abandoned houses to be repurposed.

Conditions and Inferred needs



single mom, with 2 young children
escaping domestic violence

Programmatic Need

Childcare
Therapy
Own Space
Job Space

Spatial Condition

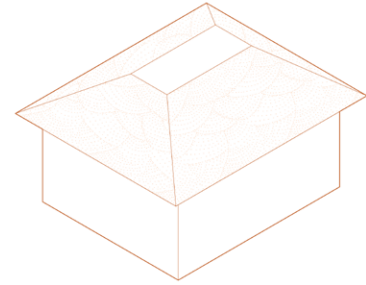
Hidden
Quiet
Familiar
Comfortable

Temporality

Permanent

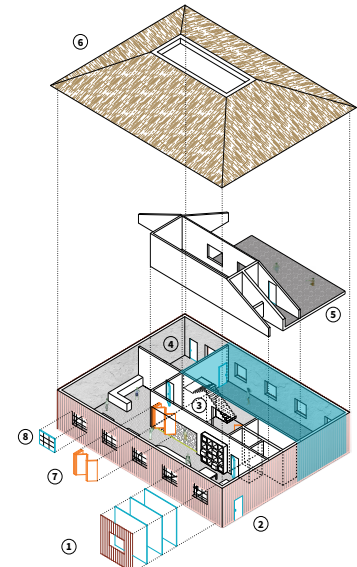
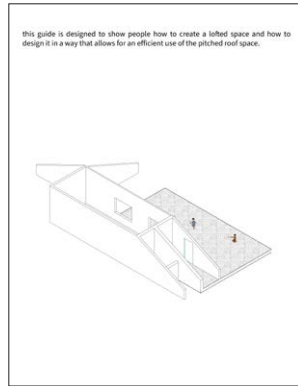
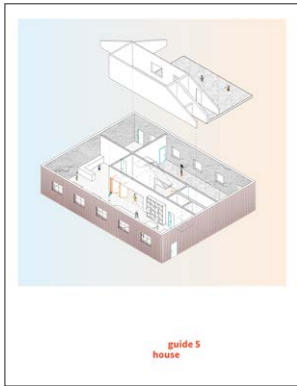
Urgency

Immediate

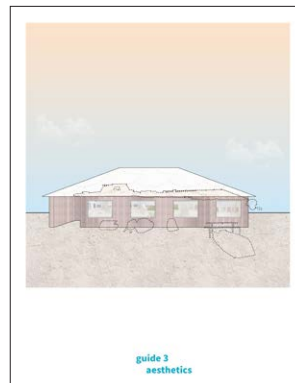
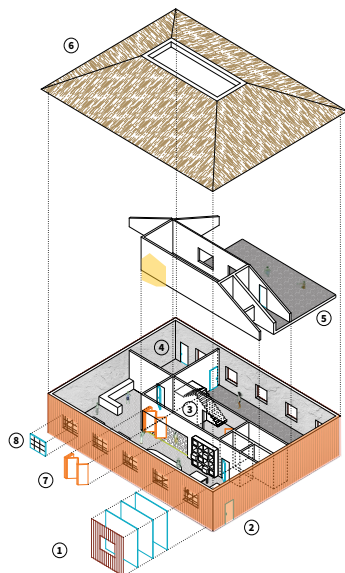


main architectural intervention
single home with buffer space

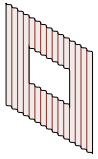
needs of a family



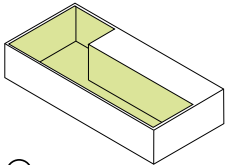
house design guide



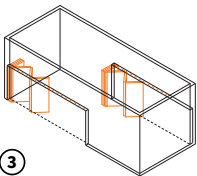
facade design guide



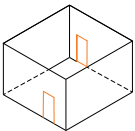
① see: guide 1: exterior barrier
creating a barrier from the street that is physically made



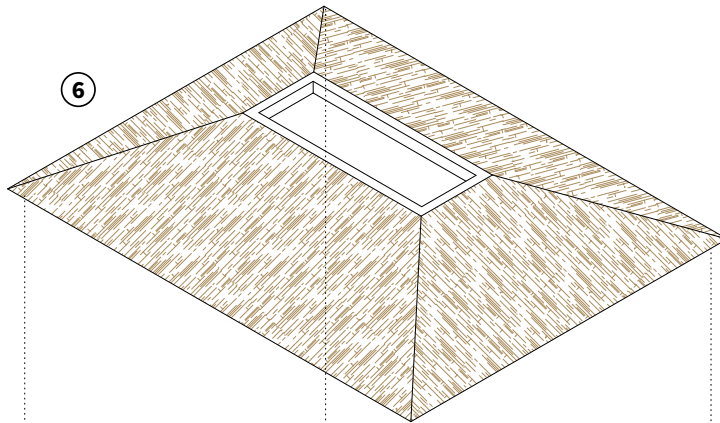
② see: guide 2: temporary stay barrier
daycare space for members of the community and network



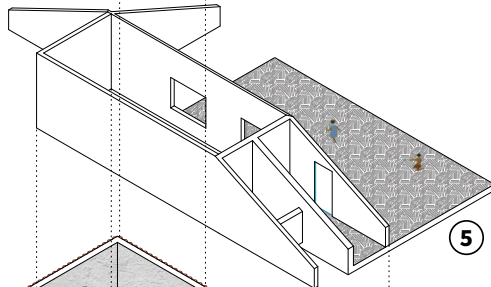
③ see: guide : circulation
extra circulation space that connects the barrier to the home



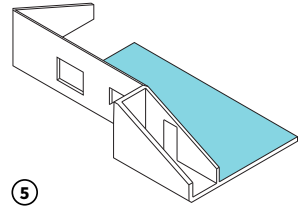
④ see: guide : circulation
shared space that further offsets the entrance to the home



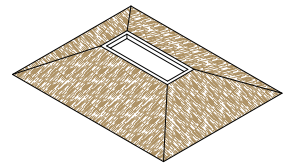
⑥



⑤



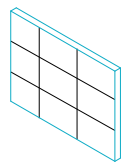
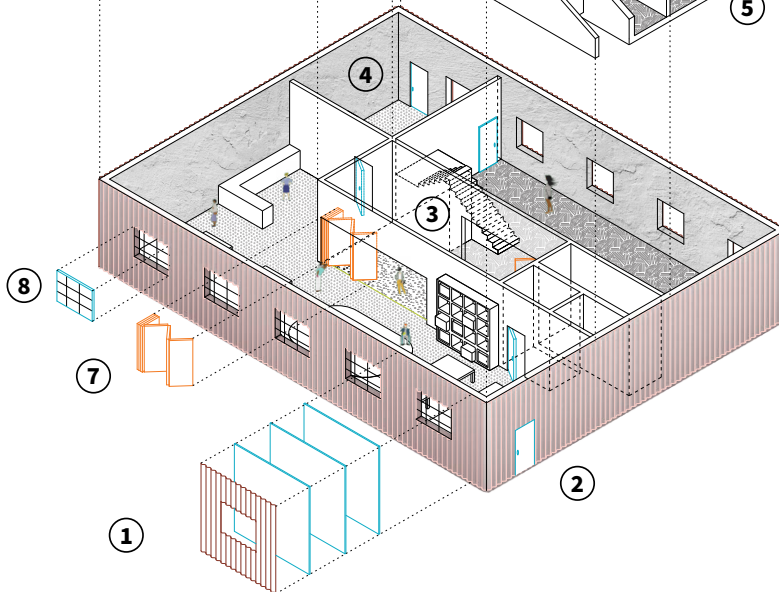
⑤ see: guide : house
lofted space to add an additional layer of street separation.



⑥ see: guide : aesthetic
a roof that can match other buildings for a cohesive network



⑦ see: guide : aesthetic
mediating space that allows the further diffusion of spaces



⑧ see: aesthetic guide
choosing how the building can match the network and context

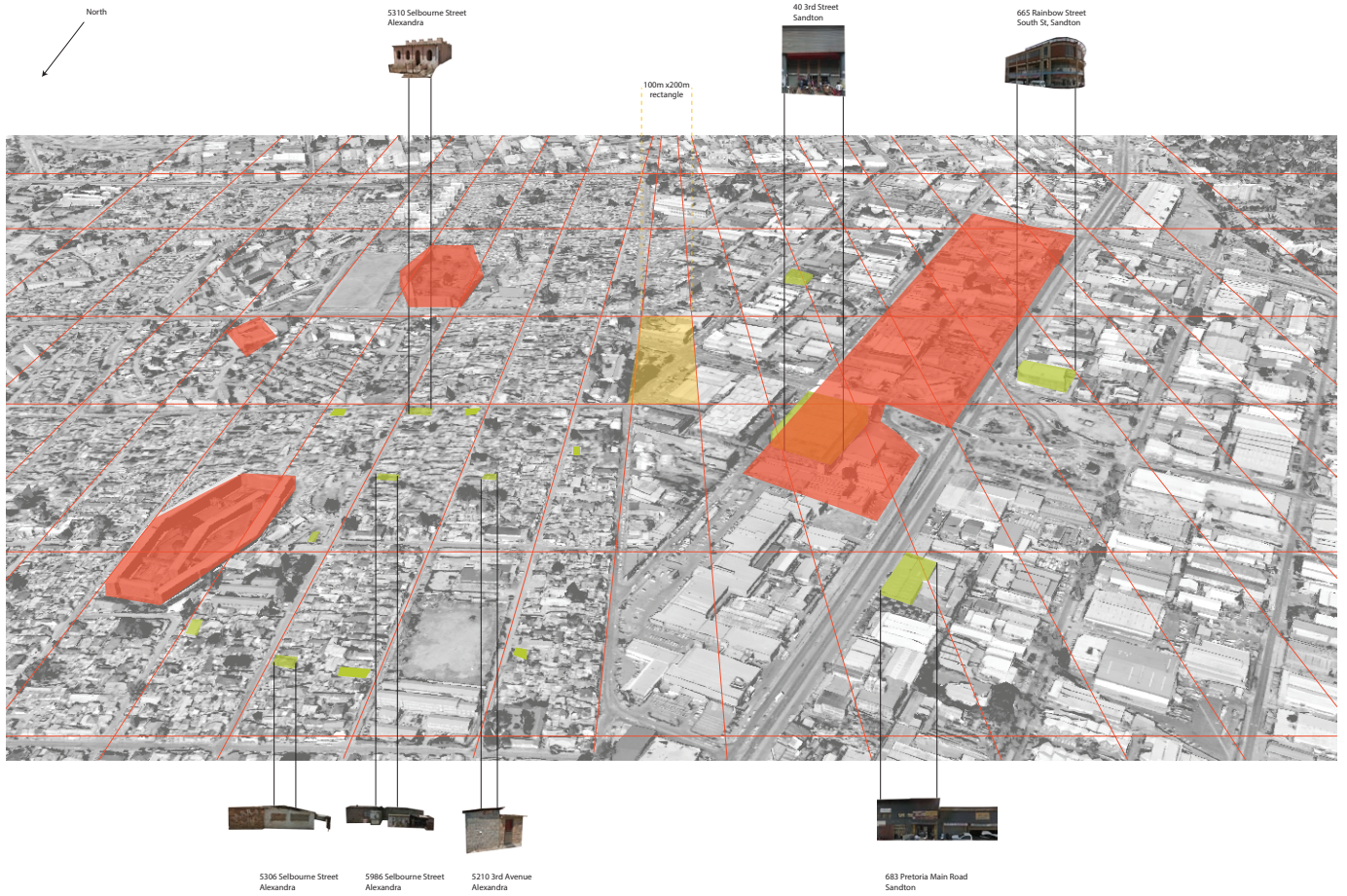


physical model images

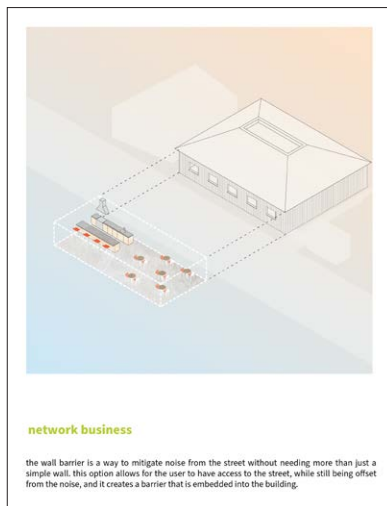
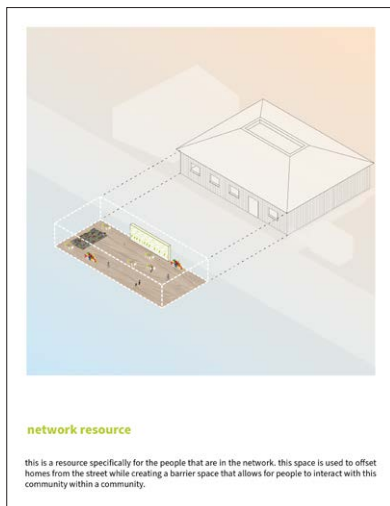
site connection + community

This network additionally operates at 2 scales, the building scale and the urban scale. In a more urban context, the network can borrow from existing resources as a way of interlinking a community of survivors with the rest of the community. Certain programs can play a dual role of connecting with the community, through restaurants, medical spaces, or daycares, that can be used by people beyond the network, while employing people who are part of the network.

For urban exploration, I mapped the resources that existed within the community and I also mapped houses that could be occupied within proximity of those resources. To chose which houses or built spaces to document, I looked for buildings that had signs of abandonment on google earth. I noted boarded up windows and doors, and buildings with mild exterior damage. By choosing all of these spaces around existing resources, this network can borrow from the community with ease.



existing amenities + network sites



community engagement guides

In conclusion, solidifying architectural techniques that can be used to invoke the feeling of safety points us towards a problem that is present and active in society. By finding the need to hide people and keep them safe, we are informed of a greater issue that would require more than the means of architecture to address. This thesis can be a catalyst for providing design options that could be used to transform existing spaces with materials that can be found locally and easily assembled. This database can provide users with the agency to create their own safe spaces and find a new community. From this past year I have learned about the ways in which architecture can be an agent in change and the ways it remains passive.

scope + limits

lessons learned

leaving a support circle, family friends etc, is a last resort

there are shelters in cities but there's not enough

people define safety in different ways

people have different needs and narratives

architecture and design cannot change everything

there are many forces that make architecture effective

architecture and design is passive for safety currently

to design effectively we need to listen to the people we design for

limitations

every single narrative cannot be collected/analysed

without testing we wouldn't know if this system works

without living there my role is limited to word of mouth

architecture has the ability to be an active agent, but not all design is active, some is passive

it is difficult to make an understood cohesive network

there still needs to be analysis done to understand more about urban connectivity and the larger scale