NORTH PHILLY PEACE PARK

ECO CONSCIOUS LIVING IN A MATERIALS ECONOMY

North Philly Peace Park

Eco Conscious Living

In A Materials Economy

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TOPIC

This project focuses on expanding the capabilities of the community garden and mutual aid group, North Philly Peace Park. My team is composed of five students of architecture, interiors, and real estate development majors. We also collaborate and co-design closely with community leaders and stakeholders. The site sits within a primarily Black and low income neighborhood that the city designates as Sharswood, but residents call “Peacetown.” This area has been historically and presently abused by racially driven housing policies including redlining, gentrification, and eminent domain. The Philadelphia Housing Authority owns a majority of lots in Peacetown and carries out widespread demolition, leaving many of the lots vacant.

My teammates and I are looking to actualize the larger vision of Peace Park through architectural support in a way that meets physiological needs, invites commerce, knowledge exchange, and community healing so that residents can reclaim space, agency, sense of place, and reimagine capabilities of Peace Town. This project would provide food, energy, shelter, Black self determination, and resilience that could hopefully be replicated throughout Philadelphia.

LITERATURE REVIEW

Eco Conscious Building

in a Materials Economy

Abby Hoffer

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ISSUES WITH A MATERIALS ECONOMY

Capitalism is a system in which assets and businesses are privately owned and the "economy relies on free markets to determine price, incomes, wealth, and distribution of goods."[1] As a result of capitalism, private corporations now have greater economic power than governments. [2] A system intended to provide economic freedom, consumer choice, and economic growth[3] has resulted in governments that prop up corporations and a fealty to growth and profit.[4]

Capitalism is based on a "materials economy" - a linear system in which materials are first extracted, then produced, distributed, consumed, and finally disposed of.[5] The materials economy is also be referred to as a "Cradle-to-Grave Model,"[6] emphasizing the long-term unsustainability of the system. Our current environmental crisis is a result of this system; as resources are consumed, waste is emitted in the name of profit. But there is a hard limit: linear systems cannot run indefinitely on a finite planet.

Due to irresponsible extraction, we are quickly running out of resources; within the past three decades, we have depleted ⅓ of the world's natural resources.[7] This is a direct result of the Industrial Revolution, and a mindset only concerned with practical, profitable, efficient, and linear solutions. "Many industrialists, designers, and engineers did not see their designs as part of a larger system, outside of an economic one."[8] During production, we combine natural resources

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[1] Niki Nicastro McCuistion. 2019. "Capitalism vs. Socialism in the United States." FRTV.Org. June 23, 2019. https://frtv.org/2019/06/capitalism-vs-socialism/.
[2] In 2007, of the top 100 largest economies on Earth, 51 were corporations and 49 were governments. Louis Fox. 2007. The Story of Stuff. Documentary. https://www.storyofstuff.org/movies/story-of-stuff/.
[3] McCuistion, "Capitalism vs. Socialism in the United States."
[4] Fox, The Story of Stuff.
[5] Fox, The Story of Stuff.
[6] William McDonough and Michael Braungart. 2002. Cradle to Cradle: Remaking the Way We Make Things. North Point Press.
[7] Fox, The Story of Stuff.
[8] McDonough and Braungart, Cradle to Cradle, 24.

with toxic chemicals that result in contaminated products.[9] The materials produced are so dangerous that "they will require constant vigilance by future generations."[10] Throughout the manufacturing and distribution of products, costs are externalized,[11] sacrificing the health of laborers and degrading the environment, in order to keep prices low. After these products are distributed to the United States, only 1% of what we consume remains in use six months after purchasing.[12] This is in part due to planned and perceived obsolescence - where products are either made to break or made to look out of style. When these products become obsolete, they are added to the 4.5 pounds of trash that the average person living in the United States disposes of per day.[13]

Frequently, the United States government treats the climate crisis with band-aids. For example, one initiative called "Cap-and-Trade" requires that companies pay a fee for the pollution their factories emit. The intent was to encourage companies to switch to renewable energy so that they would not be fined. However, it is often more cost effective for companies to pay for "permission to pollute" rather than to convert to a different energy system. Cap-and-Trade programs are a prime example of a "license to harm," or "a permit issued by a government to an industry so that it may dispense sickness, destruction, and death at an 'acceptable' rate."[14] Neoliberal policies that attempt to utilize free market economics create perverse incentives that both fail to remedy pollution or implement renewable energy, and actively harm people who have already been disenfranchised by the system. Facilities are strategically located in low income neighborhoods with a high proportion of residents of color, who fall victim to increases

[9] Fox, The Story of Stuff.
[10] McDonough and Braungart, Cradle to Cradle, 18.
[11] Fox, The Story of Stuff.
[12] Fox, The Story of Stuff.
[13] Fox, The Story of Stuff.
[14] McDonough and Braungart, Cradle to Cradle, 61.

in air pollutant emissions.[15] This is just one of many examples of how the system of capitalism shortchanges people and drives the growing environmental crisis. The following section will look more closely at the various stages of the materials economy—extraction, production, distribution, consumption, and disposal—to elaborate on the role played by design.

INTERIOR DESIGN IN A MATERIALS ECONOMY

Interior designers hold a unique position to make a positive change in the materials economy. Currently, "all building activity is environmentally damaging to some degree, and no building method or material is completely benign."[16] All interior design projects utilize natural resources and create waste during construction. Therefore, it is not feasible to practice interior design without harming the environment in any way at this time. To make a difference, designers need to "accept responsibility for the consequences of design decisions upon human well-being."[17] At a minimum, it is an interior designer's duty to create spaces that do not harm the earth.

Extraction.

Extraction can be understood as the process of removing raw materials from the Earth.[18] Interior designers can play a major role in eliminating the extraction of resources altogether by means of passive design. This means "manipulating the building's orientation, shape, layout, and envelope to take advantage of natural energy from the sun, wind, outside temperature, and

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[15] Naomi LaChance. 2018. "The Environmental Movement Has a Classism Problem." DameMagazine.com. Dame Magazine. August 9, 2018. https://www.damemagazine.com/2018/08/09/the-environmental-movement-has-a-classism-problem/.
[16] Moxon, Sustainability in Interior Design, 32.
[17] William McDonough. n.d. "The Hannover Principles." ReadingDesign.Org. Accessed October 24, 2021. https://www.readingdesign.org/hannover-principles.
[18] Fox, The Story of Stuff.

building occupants."[19] Designing buildings that rely on perpetual solar gain imitates the way that natural energy flows in the living world.[20]

There are methods that can be implemented in order to passively conserve energy in a building. Sian Moxon details a number of design strategies in her seminal book *Sustainability in Interior Design.* Solar gain warms interior spaces in cool climates by using heat from the sun instead of artificial heating. Shading can cool interior spaces in warm climates by incorporating systems that control the amount of heat and light that can enter the building. Thermal massing uses "dense materials with high heat capacity" that "store heat or coolness and transfer it slowly into the space," keeping internal temperatures constant and reducing the need for mechanical heating and cooling systems.[21] Thermal insulation involves the use of "materials that reduce the rate of heat transfer on the external envelope to ensure that the internal air temperature responds slowly to changes in external temperature."[22] Natural ventilation uses strategically placed openings to promote airflow through a space. Air tightness works closely with natural ventilation, requiring that all gaps be tightly sealed with well-designed joints and sealant. Finally, the depth of rooms and amount of glazing used should be designed to optimize natural daylighting and reduce the need for artificial lighting.[23]

To passively conserve water, the site of the building should be studied carefully so the designer can take advantage of rainfall and manage rainwater runoff. By designing roofs and rainwater drainage to empty into water stores, rainwater can be captured and utilized to "flush toilets, feed washing machines, or water plants. These systems can supply as much as half of a

[19] Sian Moxon. 2012. Sustainability in Interior Design. Laurence King Publishing Ltd.
[20] McDonough, "The Hannover Principles."
[21] Moxon, Sustainability in Interior Design, 69.
[22] Moxon, Sustainability in Interior Design, 74.
[23] Moxon, Sustainability in Interior Design, 69.

typical household's water needs."[24] Planting green roofs and living walls can aid in absorbing rainwater and slowing runoff. In addition, graywater, or excess water from showers, baths, and washing machines, can be collected and reused. Reusing graywater has the potential to reduce water usage by 30%. Blackwater, or wastewater from toilets, dishwashers and refuse chutes, can be filtered and treated to be reused in underground irrigation systems, providing water and fertilizer for nonedible plants.[25]

After integrating passive design into interiors, designers can then turn to renewable energy sources to fuel the energy demands that remain. Solar panels are the easiest to retrofit into existing structures, so they are the most often utilized. Wind power can also be beneficial but only in certain environments that possess enough space for turbines.[26] It is of utmost importance that energy use in buildings be reduced, as it is the primary cause of resource extraction and the construction industry's main contributor to global carbon emissions.

Production & Distribution.

Production can be understood as the part of the materials economy in which items are created.[27] For interior designers, this can mean furniture, building materials, finishes, and all other products involved in the creation of an interior. Distribution is the step after production in which these products are transported from the manufacturer to the consumer.[28] In the field, we refer to the time it takes for an object to be produced and distributed to the consumer as "lead time." When specifying a material, interior designers need to consider the environmental impacts at each stage of its life cycle. Every material will have its own set of benefits and drawbacks, and

[24] Moxon, Sustainability in Interior Design, 83.
[25] Moxon, Sustainability in Interior Design, 80.
[26] Moxon, Sustainability in Interior Design, 74.
[27] Fox, The Story of Stuff.
[28] Fox, The Story of Stuff.

it is up to the designer to determine which material will have the lowest overall impact in terms of energy and water usage, pollution, habitat destruction, waste, and health issues. "The materials we choose to build with can aggravate resource depletion, climate change, water scarcity, biodiversity loss, waste, and even our health, as well as [cause] pollution during production."[29] When selecting naturally occurring materials, it is best to seek out "plentiful, fast-growing, and self-replenishing materials."[30] Applied finishes can have a vast environmental impact, and can alter the material making it toxic or impossible to recycle. Paints and varnishes have the potential to turn a harmless material into a destructive component.[31]

An interior designer's goal should be to specify as few new materials as possible by means of refusing, reducing, and reusing. Although it may be tempting to participate in the latest trends, refusing to purchase items that will not remain popular past the current season will reduce the trash we dispose of down the line.

Reducing material use "addresses the core issues of our waste problem and takes into consideration the imminent environmental consequences of population growth, associated consumption, and the finite planetary resources that cannot support the world's needs."[32] Unfortunately, marketing makes consumers believe that single use products are more desirable, convenient, and cost effective than reusing one durable product.[33] However, reduction "does not halt depletion and destruction - it only slows down, allowing them to take place in smaller increments over a longer period of time."[34] In the end, a different, non-linear model is required for sustainability, but I will return to this shortly.

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[29] Moxon, Sustainability in Interior Design, 84.
[30] Dr. Dina Wagih Fadel Eskander. 2021. "The Role of Sustainable Interior Design Strategies in Increasing Occupant Comfort in Commercial Spaces." https://doi.org/10.21608/mjaf.2020.35698.1723, 576.
[31] Moxon, Sustainability in Interior Design, 97.
[32] McDonough and Braungart, Cradle to Cradle, 54.
[33] Bea Johnson. 2016. Zero Waste Home: The Ultimate Guide to Simplifying Your Life. Penguin Books.
[34] McDonough and Braungart, Cradle to Cradle, 54.

Designers should do research to determine the types of materials that have withstood the test of time. Are the products still able to serve their original functions? Are the products still aesthetically pleasing? And if not, are the materials reusable or recyclable? The products that designers specify should be "safe objects of long-term value."[35] This means that whatever designers specify should long outlast a client's life cycle. As long as a piece is in use, it will continue to be kept out of the landfill. For non-luxury projects, designers should source used furniture, which is often very affordable and occasionally free.

Finally, designers should question prices and account for externalized costs. If a product has an unusually low price point, it's important to research the company's extraction, production, and distribution processes to determine whether someone further up the line is paying the price.[36] Because large corporations often work to obscure these processes, designers need to contact their sales reps and ask questions, such as "Where are your company's materials sourced from?", "Are all the employees being paid an ethical wage?" and "How is your company working to reduce carbon emissions?" If designers boycott companies that cannot answer these questions, the companies will have the incentive to be more transparent and improve their standards.

Consumption.

Consumption can be understood as the process of purchasing and using products, and it is at the heart of the materials economy.[37] Under capitalism, advertising creates desire for and works to maximize consumption, to the detriment of our environment. There are several ways to reduce consumption, which designers should embrace.

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[35] McDonough, "The Hannover Principles."
[36] Fox, The Story of Stuff.
[37] Fox, The Story of Stuff.

Reusing utilizes "the product in its original manufactured form several times to maximize its usage and increase its useful life, therefore saving the resources otherwise lost through the process of recycling."[38] Utilizing materials salvaged from demolition waste as well as reclaimed materials negates the need for virgin raw materials and their inevitable environmental impacts.[39] Existing furniture can be reupholstered or refinished in order to decrease waste. Additional furniture can be purchased from "thrift stores, vintage shops, consignment boutiques or flea markets"[40] as opposed to buying new. Supporting shops that sell used products not only diverts waste from landfills, but also ethically feeds our materials economy.

As another way to cut down on consumption rates, designers can implement metering to influence occupant behavior. For instance, water meters allow residents to "see how much water they are using, encouraging them to use it sparingly"[41] to save money on utilities. Designers can also conserve energy and water by specifying energy-efficient lighting, appliances, fixtures and faucets.[42]

Bea Johnson promotes a "Zero Waste" lifestyle, which offers a number of suggestions for reducing consumption. Consumers can reduce their consumption rates by eliminating space for excess in their homes. Large surfaces encourage consumption, so smaller surfaces will accomplish the opposite. Instead of purchasing more storage for an excess of objects, decrease the number of objects. Decluttering spaces such as kitchens, bathrooms, and bedrooms presents an opportunity to face the waste. This means that consumers should not only notice that they have a lot of products, but also ask themselves how they have acquired so many, how that

[38] Johnson, Zero Waste Home, 23.
[39] Moxon, Sustainability in Interior Design, 95.
[40] Johnson, Zero Waste Home, 120.
[41] Moxon, Sustainability in Interior Design, 78.
[42] Moxon, Sustainability in Interior Design, 80.

number can be reduced in the future, and how they can responsibly dispose of what they no longer need. After assessing consumption, excess can be donated to organizations that provide for those in need.[43]

Disposal.

Disposal is the last step in the linear materials economy. Although many consumers would think of disposal as the removal of objects, it is better defined as the distribution of undesired objects from one place to another. The concept of "throwing something away" is imaginary because there is no "away" – there is only "elsewhere," which is typically a landfill.[44] A designer's goal should not only be to reduce waste, but also to create a more circular system that ties waste back into production rather than contributing to pollution.

Much of our waste can be diverted from the landfill by implementing composting, nature's way of recycling. Composting allows "for organic discards to decompose over time and return their nutrients to the soil."[45] Interior designers should incorporate systems for composting into buildings wherever possible. This could be as simple as including a compost bucket near the kitchen or as complex as building a chute that feeds into an outdoor system. However, there is room for human error. If materials are not specifically designed to be composted, chemicals and toxins can be released into the environment. Consumers must be aware of what is and is not compostable in order to practice composting safely.[46]

One method for linking disposal with production is recycling. Ideally, recycling should reprocess a product to turn it into something new and usable. Recycling's original purpose was to close our waste loops. However, our current recycling system is complex. Most recycling

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[43] Johnson, Zero Waste Home.
[44] Fox, The Story of Stuff.
[45] Johnson, Zero Waste Home, 27.
[46] McDonough and Braungart, Cradle to Cradle, 56.

practices rely on manufacturers that design durable and recyclable products that are labeled accordingly, consumer awareness of local recycling policies, municipalities providing curbside recycling, and materials recovery facilities correctly sorting recyclables.[47] In addition, designers can include recycling bins in all parts of the buildings where recyclables are being used. For instance, a recycling bin could be included in bathrooms to ensure proper disposal of paper products.

Unfortunately, most recycling is not recycling at all - it's downcycling. During the process of downcycling, toxic materials are added to existing weak materials in order to make them usable again. This "reduces the quality of a material over time" and can contribute to an increase in contamination of the biosphere.[48] To contribute to better recycling practices, designers should be aware of this process when selecting and disposing of materials. A material labeled as recycled could actually be downcycled, achieving the opposite of the designer's original intent.

Interior designers should be aware of the massive role they play in a materials economy and actively work to improve it. By refusing, reducing, and reusing, designers have the power to make a positive impact on the environment. The final section will delve into regenerative design opportunities that can work to address the flaws in a materials economy.

MODIFYING A MATERIALS ECONOMY

The current linear materials economy that exists under capitalism poses an existential risk to human life. While there are many ways this destructive process can be mitigated, in the end all these possibilities will fall short of a truly sustainable economy that is beneficial to

[47] Johnson, Zero Waste Home, 25.
[48] McDonough and Braungart, Cradle to Cradle, 57.

everyone.[49] As such, it is necessary to think about how the materials economy can be modified in a more substantive way. The following represent current thinking on ways design can institute better, more sustainable processes.

Collaboration.

Interior designers work as part of a team; throughout each project, they may consult with architects, landscape architects, and system engineers. In our current system, interior designers may have little control over systems that impact their designs, and this needs to change. "Direct and open communication between colleagues, patrons, manufacturers and users"[50] results in an exchange of knowledge that makes projects more successful. Collaboration is linked to "long term sustainable considerations with ethical responsibility, [to] re-establish the integral relationship between natural processes and human activity."[51]

Biomimicry.

Designers should work to "eliminate the concept of waste"[52] altogether. In natural systems, "waste" is fuel for production, creating a circular system. One example of this being explored is the biolife of the prairie at The Land Institute in Kansas, where plants and natural processes work cohesively throughout the life cycle.[53] Utilizing nature as a model and imitating its systems to solve human problems is known as biomimicry.[54] Human design cannot solve everything - there are limitations. Designers should "treat nature as a model and mentor, not as

[49] LaChance, "The Environmental Movement Has a Classism Problem."
[50] Moxon, Sustainability in Interior Design, 78.
[51] McDonough, "The Hannover Principles."
[52] McDonough, "The Hannover Principles."
[53] At the Land Institute, their goal is to design a domestic plant community that is symbiotic and biodiverse like a prairie, but predictable enough to be utilized for agriculture. Benyus, Janine M. 1997. "Parable of the Prairie." Excerpt from Biomimicry: Innovation Inspired by Nature.
[54] Benyus, "Parable of the Prairie."

an inconvenience to be evaded or controlled."[55] Human design is interdependent upon the natural world.

Regeneration.

A "regenerative" mindset is one that is "committed to realizing the evolutionary potential of life."[56] With regenerative design, we focus on "how to build the capacity in people and other living systems to be self-determining in the world."[57] There are a variety of ways to do this, including thinking of the spaces we design as parts of a larger whole, utilizing activating and restraining forces to reconcile direction rather than to compromise, and being aware of the different levels of work it takes to reach full potential.[58] One example, "eco-effectiveness" uses "commerce as the engine of change, and honors its need to function quickly and productively."[59] It recognizes the potential of commerce to regenerate life but is also aware that it can produce large-scale tragedy by ignoring environmental, social, and cultural concerns.[60] Regenerative design offers a way of designing that puts existing processes in service of sustaining the environment and human life.

CONCLUDING THOUGHTS

The materials economy is an unsustainable linear practice that designers have the power to modify. Designers can work to eliminate the extraction of resources by means of passive design and implementing renewable energy sources. Production, distribution, and consumption of new materials can be reduced by considering the environmental impacts of a product at each

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[55] McDonough, "The Hannover Principles."
[56] Carol Sanford. 2020. The Regenerative Life: Transform Any Organization, Our Society, and Your Destiny. Nicholas Brealey.
[57] Carol Sanford, The Regenerative Life.
[58] Carol Sanford, The Regenerative Life.
[59] McDonough and Braungart, Cradle to Cradle, 57.
[60] McDonough and Braungart, Cradle to Cradle, 57.

stage of its life cycle and specifying as few new materials as possible by refusing, reducing, and reusing. Designers should work to eliminate disposal altogether by assigning value to waste and circulating it back into production. It is a designer's moral obligation to create healing spaces that amend the destruction caused to society and the planet.

SMART CENTER

Design Precedent 1

Analyzed through a theoretical lens

A facility that allows residents and businesses to recycle a broader assortment of materials, resulting in dramatically higher recycling and diversion rates

Founder: *Spokane Materials & Recycling Technology (SMaRT)*

Date created: *2012*

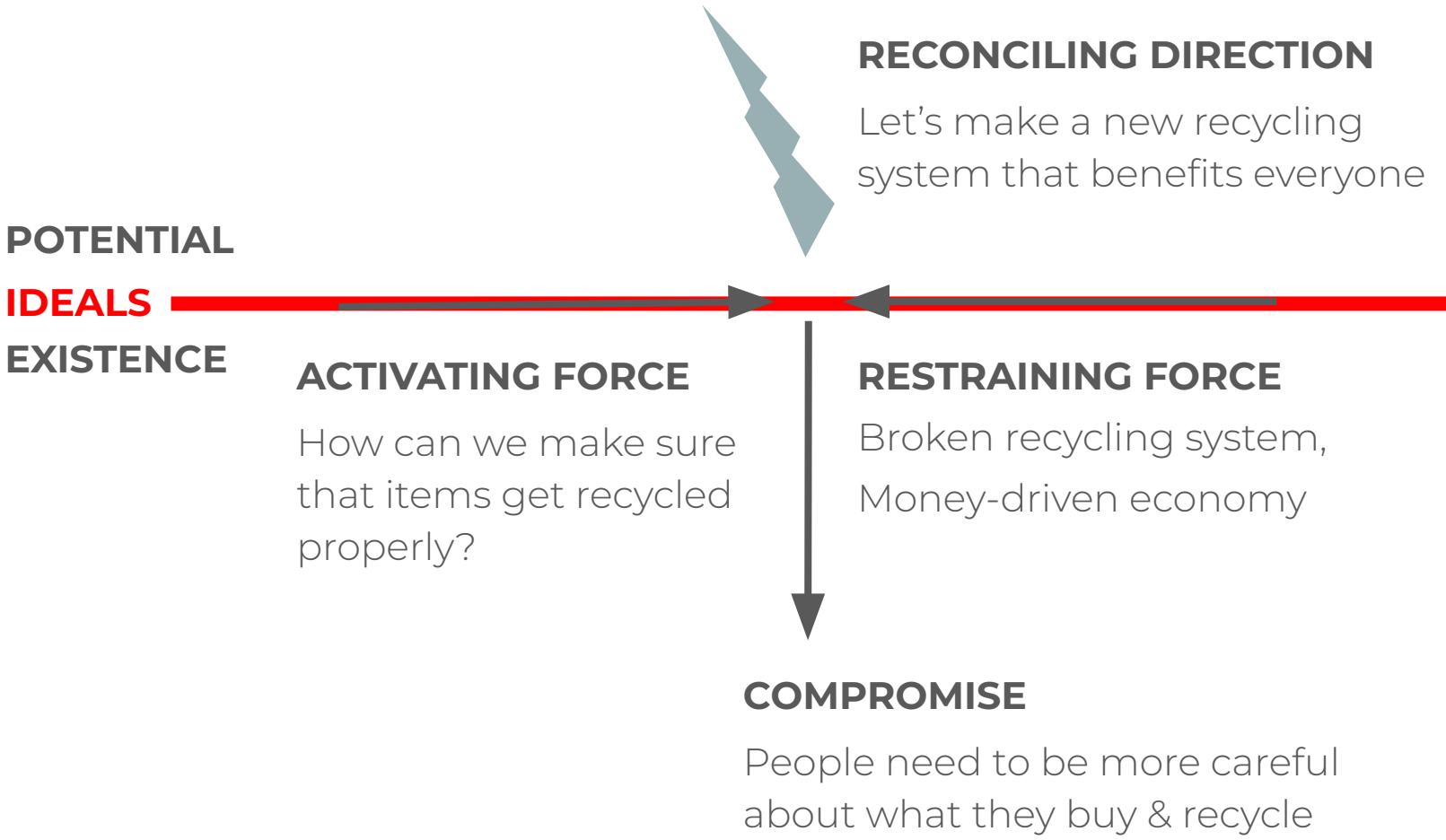
Location: *Spokane, Washington (also located in Idaho & British Columbia)*

Size: *62k sq. ft., spans 8 acres*

Shareholders: *Waste Management*

Cost: *$18 Million*

Frameworks: Law of Three & Existence, Ideals, Potential



HOW DOES THE SMART CENTER RECONCILE DIRECTION?

- Produces $400 worth of usable material from recyclables
- Average recycling center produces $40 worth
- Accepts single stream "all in one" recyclables as well as mixed residential and commercial recyclables
- Other sites do not accept all in one or mixed recyclables
- Processes magazines, catalogs, & mail
- Other sites do not
- Not open to the public for drop off
- Decreases chances of human error

MINIM MICRO HOMES

Design Precedent 2

Analyzed through a contextual and scholarly lens

“Minimal” House, can purchase entire units or plans.

Designer: *Foundry Architects*

Date created: *2013*

Location: *Washington, DC*

Size: *210 sq. ft for trailer, 265 sq. ft. permanent*

Program: *Kitchen, bathroom, areas for sleeping, working, lounging & dining*

Target audience/users: *Those who want to live in/construct their own tiny homes, off-grid/minimalism lifestyle seekers*

Cost: *$495 for plans, $70k for completed homes*

DESIGN PROBE I

A Study of Scale

Scrap Sofa

Constructed from unusable fabric samples. Base of styrofoam intended to keep microplastics from entering the ocean. Created at a scale usable in a Barbie house to continue its use past the assignment.

A DESIGNER'S ROLE IN A MATERIALS ECONOMY

EXTRACTION | PRODUCTION | DISTRIBUTION | CONSUMPTION | DISPOSAL

ENVIRONMENTAL JOURNEY

RAW MATERIALS ARE EXTRACTED FROM THE EARTH

TOXIC CHEMICALS ARE RELEASED INTO THE AIR, WATER & SOIL

PRODUCTS ARE TRUCKED TO MANUFACTURERS AND DISPLAYED IN SHOWROOMS & WEBSITES

PRODUCTS ARE CONSUMED AT HIGH RATES

WASTE IS DISPOSED OF IN A LANDFILL OR LEECHES INTO OCEANS & AIR

AN INTERIOR DESIGNER'S AGENCY OVER ENVIRONMENTAL IMPACT

INTERIOR DESIGNER JOURNEY

SPECIFY NEW FURNITURE, LIGHTING, FABRICS & FINISHES

WAIT DURING LEAD TIME

VISIT SHOWROOMS, BROWSE WEBSITES & MAGAZINES

CREATE NEW INTERIORS

THROW AWAY OLD OR DAMAGED FURNITURE, MATERIALS & OTHER CONSTRUCTION WASTE

DESIGN PROBE II

A Study of Material

EcoBricks are bottles densely packed with plastics that serve as super strong blocks for Earth Building, an ancient technique used to build homes and structures that have lasted for centuries. By using local materials to make mortar, we can build in ways that are resilient, strong, beautiful, and thermal-retentive. Earth building is inherently regenerative: it's simple, replicable, non-capital, non-petroleum, collaboration powered, and cradle to cradle.

My EcoBrick Progress from 11/26/21 (right) - 2/7/22 (left)

DESIGN PROBE III

Interview subject: Kermit O

Title: Former core member of the North Philly Peace Park education team (2019-2021)

Date: Friday, January 7th, 2022, 4:30 PM

Notes: Answers are not exact quotes, just notes taken during the interview; Kermit's point of view does not represent that of the collective, especially as he was only involved for 2 years

Q: Can you describe your role at North Philly Peace Park? What were your responsibilities?

A: coordinated meetings, discussed phase plan to provide a liberator's education to people in the community

Q: What were your department's main goals? What are the goals of North Philly Peace Park as an organization?

A:

As a department:

- to train young people to think and function as self determined individuals and as members of the community
- to act as a supplement to virtual learning, moving towards after school programming and eventually full replacement for school based out of the pavilion that's currently being built

As a whole:

- to create models for Black self determination, most manifesting the idea of "peace town"
- to plan for a block long space that would provide food, energy, shelter, self determination, and resilience that could be replicated throughout the city
- To incorporate education and means for living all in one place, learning skills that directly connect to improving and maintaining their livelihood

Q: Who would you come into contact with on a regular basis? (Age, community members or non community members, other demographics)

A: mostly interacted with adults, young people came when they came, no formal schedule, they were mostly trying to plan sustainable programming for the community members, so met with adults

Q: Are there public indoor spaces available? What are they and what are they used for? Who uses them?

A: Peace Park has access to 2 buildings on the site and hoped to use them for co working spaces, art studio, media studio, domicile for in person staff who wanted to live and work there, properties on that block are owned by other people, communicated with owners to bring everything under the same umbrella, would also like to create an auto shop to repair cars

Q: Is North Philly Peace Park drawing from any precedents? Does anything similar like this exist in America?

A: Not in America, inspiration drawn from previous efforts, inspiration summed up by: marronage (look up that word)

Q: What was the biggest challenge you faced working on this project?

A: scheduling everyone at the same time, logistics, if 50 people could put in 10 hours a week, you could produce enough food and shelter for 4 times the amount of time everyone would work, the demands of capital supersedes the ability to build the space, part of the reason he left had to do with his own needs to make a living and do his own thing, not being able to commit enough time, self care, money

Q: How would North Philly Peace Park prevent gentrification of the space?

A:

- community power, peace park came about by community regaining space that was under PHA ownership, had to fight with PHA and police raid, community members came out and supported peace park and got PHA to back off
- create a community land trust to have the land held in common, the land would be held in perpetuity, other people could not come in and take the land, land trust is the most effective method for protecting community space, land trusts in philly: life circle association
- in terms of outsiders using the space, the peace park was weary of it, but there was nothing preventing people from coming in, peace park attempted to allow people in only on their terms, outsiders could volunteer but only on peace park's terms

General Notes:

- Organization has a democratic leadership
- Mostly volunteer work, so it happened when people had time
- Look into his article: https://whyy.org/articles/why-north-philly-peace-park-is-building-an-afrofuturist-pavillion/
- Look into Green Wall Street: Local Black Entrepreneurs

- self determination is the important term, to operate outside the capitalist system, as a practical matter in terms of resilience, no matter what is going on, the community would sustain
- 12 year ongoing project
- how could permaculture be factored in?
- biggest dream: to be able to sustain themselves outside of capitalism BUT they understood that they had to operate within the system

Part 2: Design

In my interview with Kermit O, a former core member of the education team at North Philly Peace Park, I heard firsthand how difficult it is to be a volunteer on an anticapitalism project while keeping up with the demands of capitalism. The main issue is that neither the organization nor its volunteers have the funds to accomplish their dream: a self-sustaining community that isn't reliant on money. Because the volunteers need money to live, they can only donate so much of their time before becoming unavailable, and not everyone is available at the same time. So how can a self-sustaining anticapitalist community be designed under these conditions?

In order to build a self-sustaining community, the organization needs self-sustaining volunteers. A smaller scale self-sustaining environment for the volunteers could allow them to dedicate more time to the larger project. This could mean that their office is more than an office - it's a food garden, a community closet, full bathrooms with showers, and sleeping quarters. These volunteers need a better environment to support their needs. It's understandable that volunteers are unable to be compensated with money for their time, but that doesn't mean they couldn't be compensated with other basic needs such as food and clothing to supplement their income. Offering incentives such as food along with the job may encourage others to volunteer on the project as well, and the more manpower the better. In order for this project to exist, the cycle of capitalism needs to break.

DESIGN AGENDA

For my thesis project, I'm teaming up with a group of students from Jefferson University to help Peace Town expand into a regenerative block scale design. This project would provide food, energy, shelter, Black self determination, and resilience that could hopefully be replicated throughout Philadelphia.

The main idea is to incorporate education and means for living all in one place,thus negating many of the demands of capitalism. And this is a goal that Peace Park is already working to reach, we're just looking to help them out.

Decision making in our group is a collaborative effort. Outside of meeting times, each group member is only to complete Research, Evaluation, and Production (REP). During our meetings, we take turns acting as Facilitator, Scribe, and Timekeeper. These positions rotate every 2 weeks.

GROUP PERMISSIONS

Abby: is blunt (don't take personally), octopus at beginning of projects, empathy around being invited into paradigm (be nice tho), clear tasks + deadlines

Victoria: honest policy, straight up, octopus, is sensitive

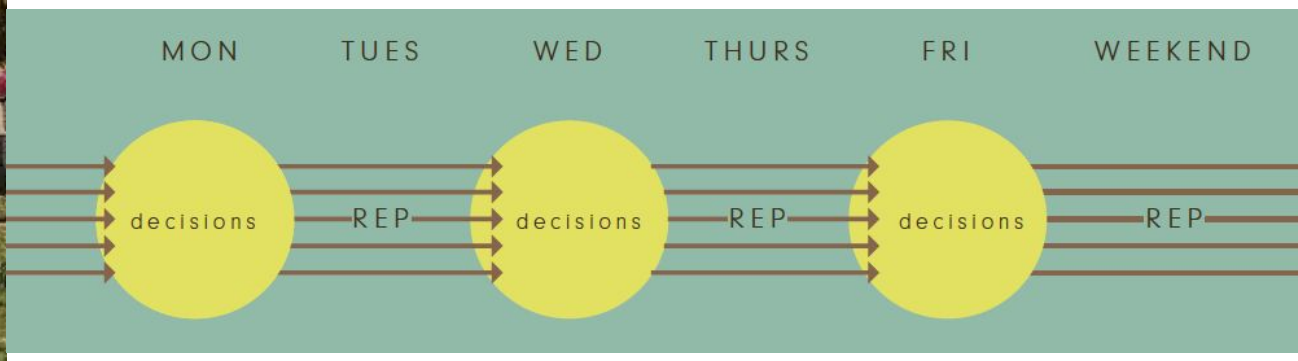
Julie: turtle until hits a certain point, if interrupting unintentionally can be called out with something along the lines of “could I finish my thought?” “Could you wait a sec?” etc

Ivy: nice call out, octopus, invite into a higher level of thinking instead of “attacking”,

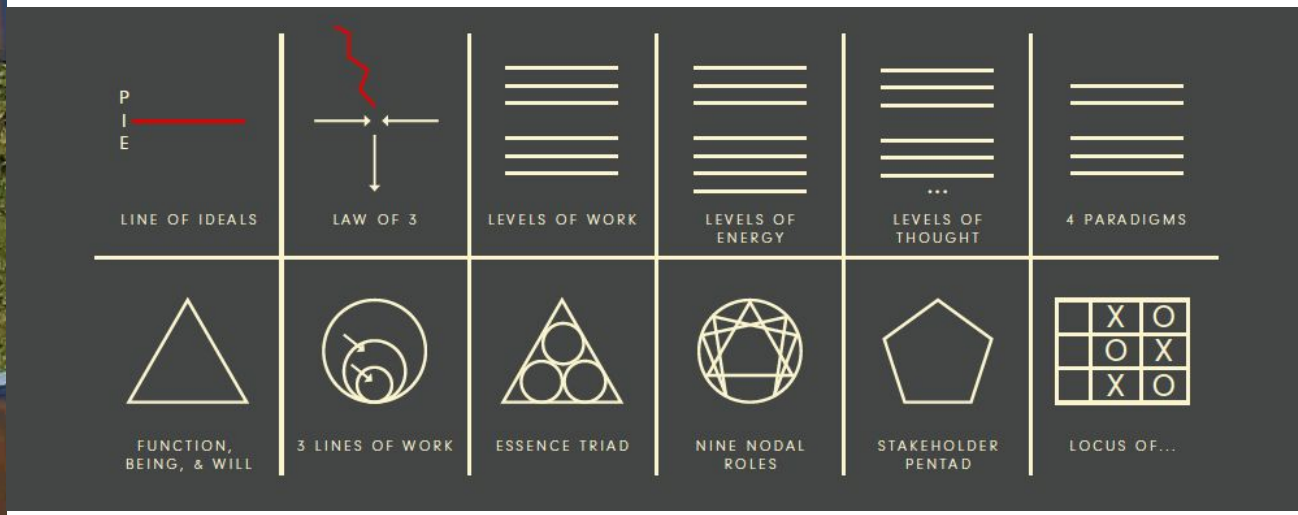
Abi: be straight up, octopus/ turtle depends on situation, tell her when she's out of paradigm, clear tasks + deadlines, big picture design

COLLABORATIVE STRATEGIES

Decision Making



Dynamic Living Systems Frameworks



MAIN GAME PLAYERS

Journey Map

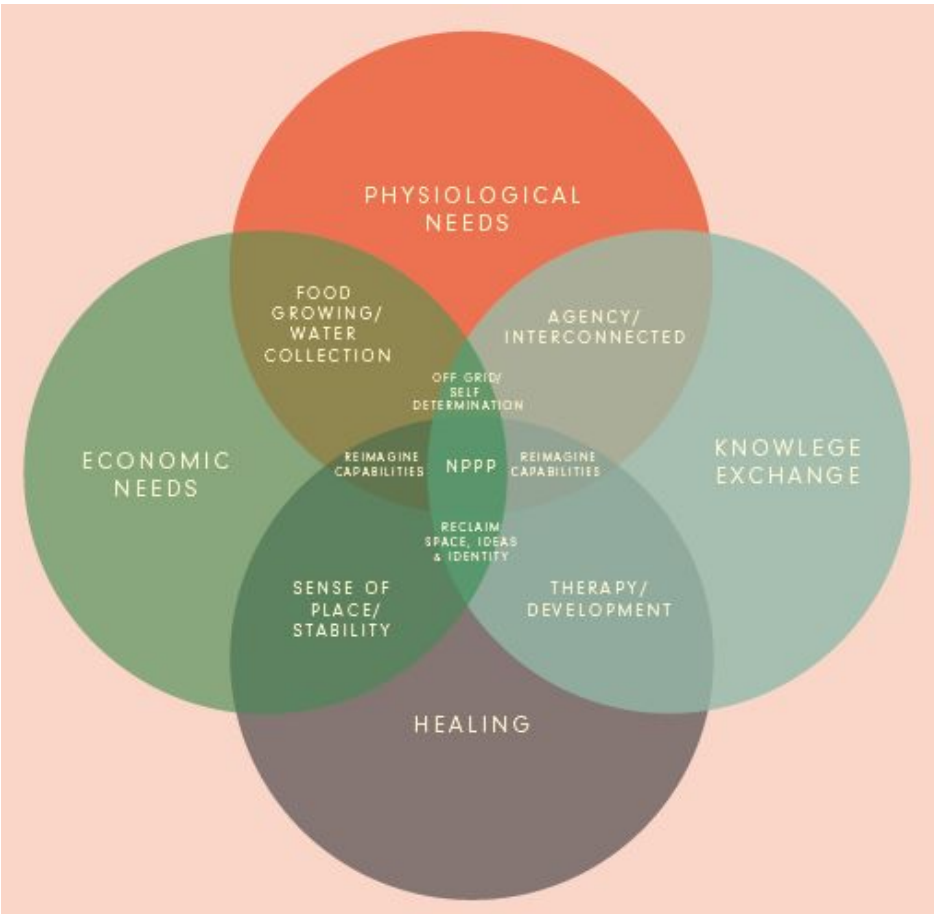
	FALL 21	WINTER 22	SPRING 22	SUMMER 22	FALL 22
Me	Lit Review, Research, Topic Decision, Advisor Pairing	Met team, Brief, Schematic Design, Drawing Development	Final Presentation	Consultation, Fundraising & Partnerships	Material Procurement
Drexel	Programming	Development	Documentation	?	?
Jefferson	Studio Semester 1	Studio Semester 2	Studio Semester 2	Studio Semester 1, Fundraising & Partnerships	Studio Semester 2
North Philly Peace Park	Pavilion Construction	Pavilion Construction	Pavilion Construction	Pavilion Construction, Fundraising & Partnerships	Pavilion Construction
US Dept. of Energy	Research & Project Info	Management Plan & Construction Documents	Final Design Presentation	Permit Set, Fundraising & Partnerships	Construction

DESIGN INTENT

To **actualize** the larger vision of Peace Park through **architectural support**

in a way that meets **physiological needs, invites commerce, knowledge exchange, & community healing**

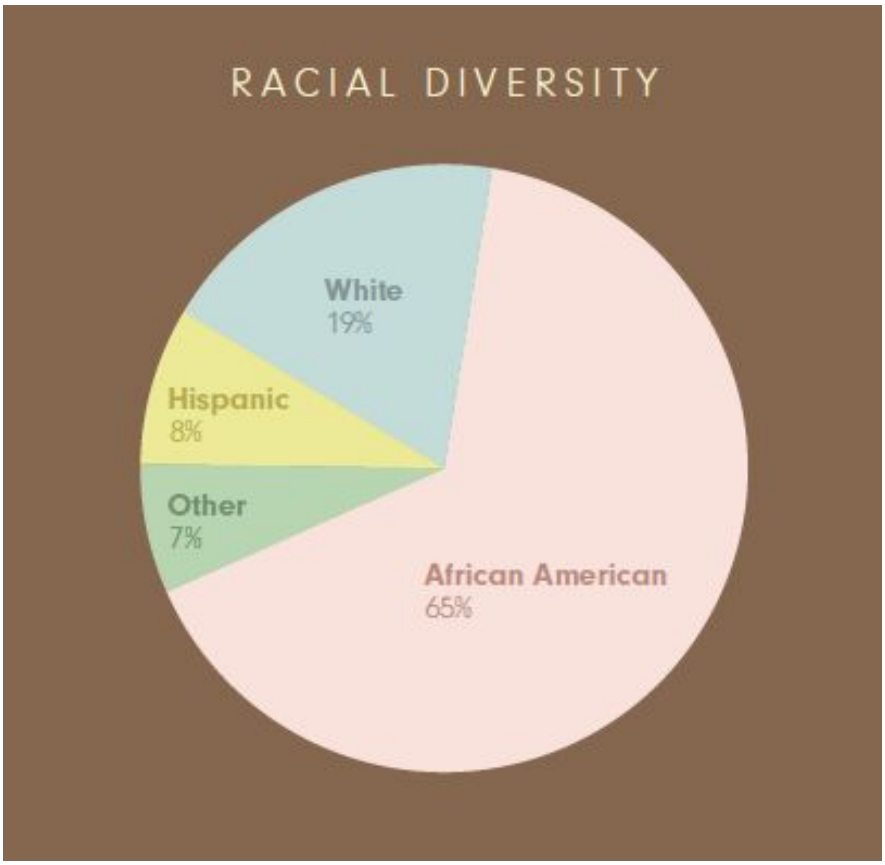
so that residents can **reclaim space, agency, sense of place, & reimagine capabilities** of Peace Town.

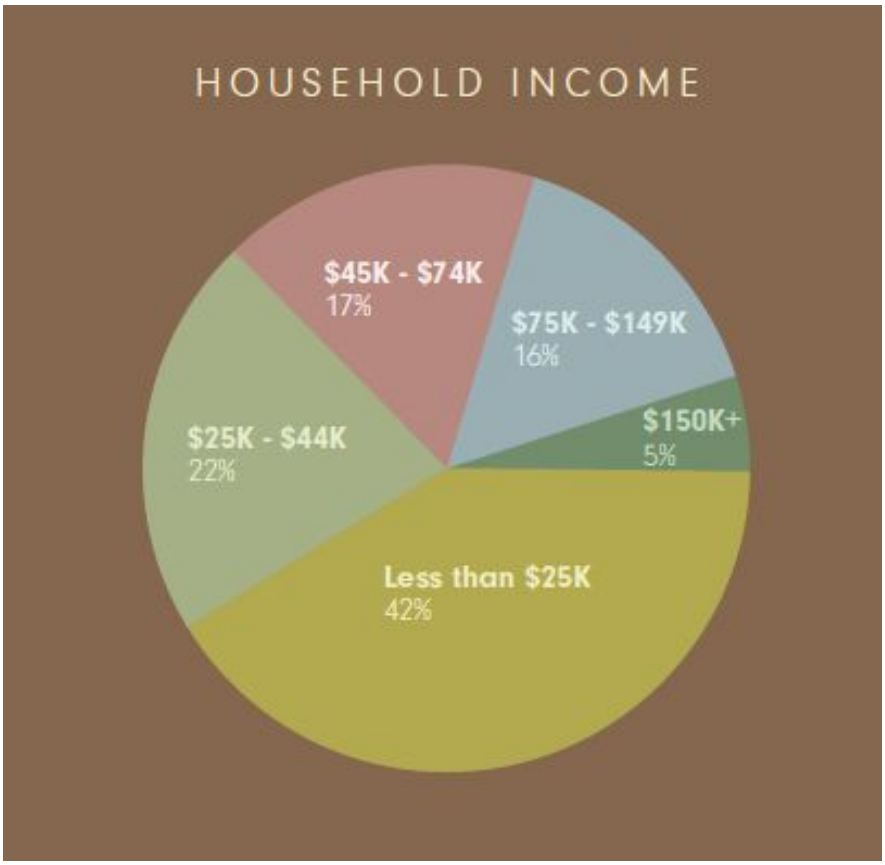


SITE

Peace Town, Philadelphia

Peace Park is located in Lower North Philadelphia in a neighborhood Google Maps likes to call Sharswood, but better known by the residents as Peace Town. Girard College is located to the south and has a 10 foot wall that acts as a southern edge to the public transit desert located in Peace Town. There is one bus route (notated in pink).


RACIAL DIVERSITY
White
19%
Hispanic
8%
Other
7%
African American
65%


HOUSEHOLD INCOME
$45K - $74K
17%
$75K - $149K
16%
$150K+
5%
$25K - $44K
22%
Less than $25K
42%

BACKGROUND

North Philly Peace Park was founded in February 2012 by socially engaged community members seeking to reclaim vacant land. Since then, neighborhood residents, activists, designers, organizers, and educators have formed an ecological campus that sought out to collectively solve many of the neighborhood's critical issues. Through this incredible act of grassroots collaboration, volunteers had transformed the land to include a fence-free organic farm, an Earthship-style pavilion, and created after-school and community programs.

PEACE TOWN

N 22nd & Jefferson

But in 2015, Peace Park was driven out by the Philadelphia Housing Authority's redevelopment plans and relocated to its current location along Jefferson street. Under the guise of affordable housing, PHA has turned many homeowners into renters and erased the sense of place from the neighborhood through demolition. Adjacent areas such as Brewerytown are also driving gentrification into the area. Since 2016, Peace Park has been engaged in the redevelopment process.

SALA KETURAH S.T.E.M. PAVILION

In May 2021, community members broke ground on a solar-powered facility called the Sala Keturah STEM pavilion, which contains two classrooms and a kitchen. Targeting net zero energy, the ‘off-the-grid’ Pavilion acts as a teaching tool for the community by showcasing a variety of regenerative design strategies. Construction of this pavilion will engage volunteers from the community as well as the services of YouthBuild Philly, T. Savage Construction and Perryman Construction.

SALA KETURAH S.T.E.M. PAVILION

The primary roof structure and open floor plan is inspired by The Oshun Temple located in Niger. The porch became an American architectural form following the shotgun houses built by African slaves imported from traditional homes in West Africa. It provides a place for leisure, gathering, socializing, and contributes to the life of American urban areas. Light casts onto the porch at marked intervals to commemorate historical events of African American history, Philadelphian history, and the history of Peace Park.

BLOCKSCALE

Emergency & Temporary Housing Unit (3)

Vertical Gardening Cube

Peace Pavilion

Administrative Building

Tool Shed

Greenhouse (2)

Garden Beds

Orchard

Auto Shop

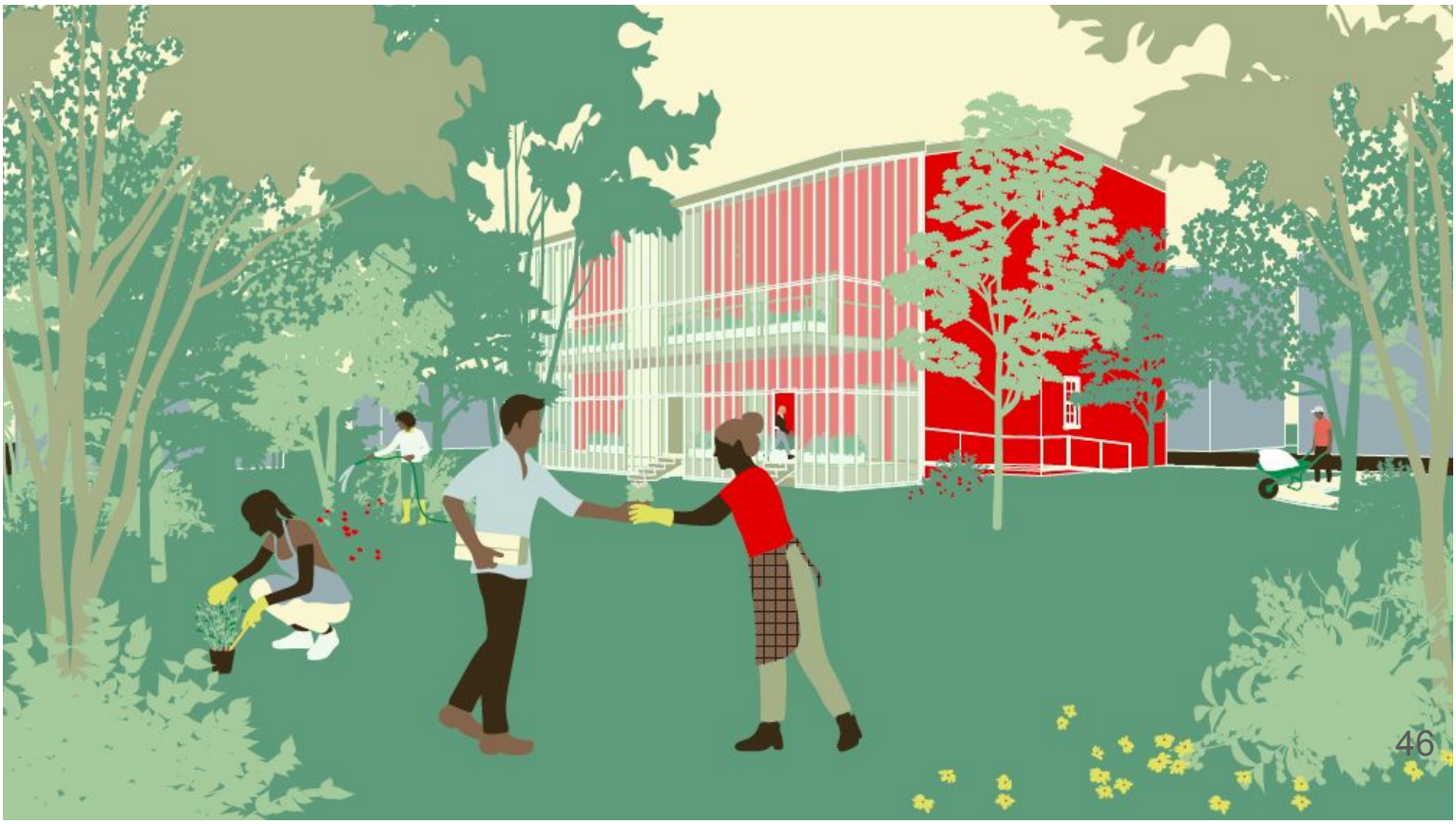
Day Care

Market & Library

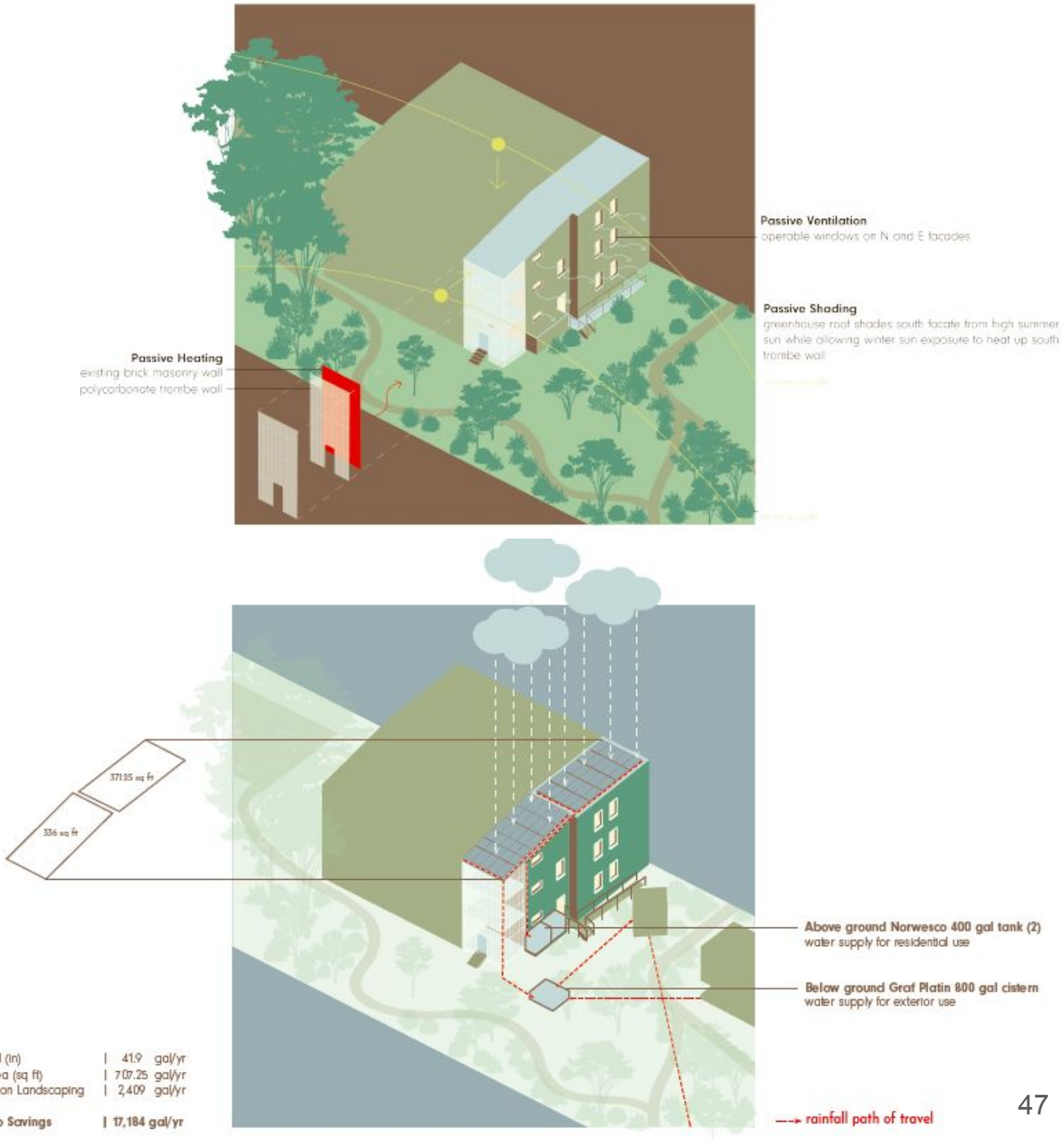
Ice Cream Shop

Proposed Block Scale

EXTERIOR



PASSIVE STRATEGIES



PASSIVE STRATEGIES

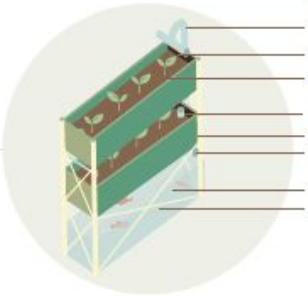
Aquaponics Capacity

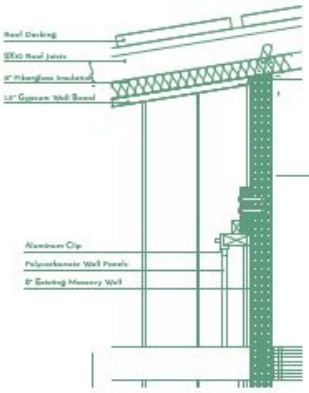
4" Pipe
T-Bar Sprinklers
18" Grow Bed 12" Soil

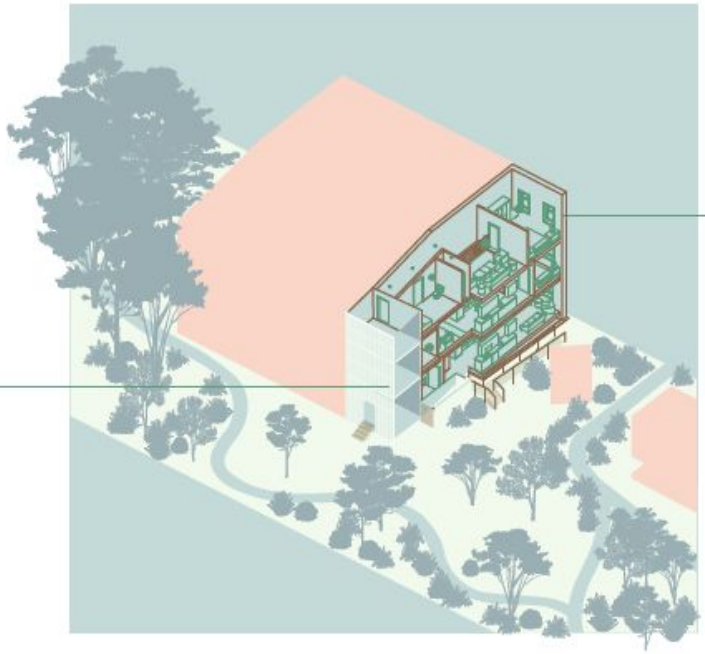
Autosiphon System
Water Pump 7.5 L
Air Pump

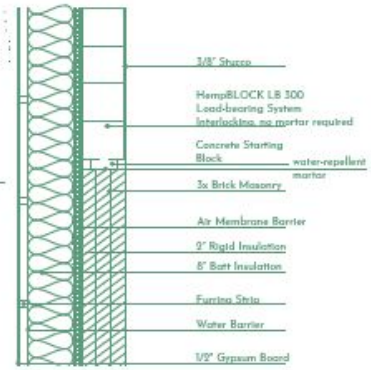
Aerator
125 Gallon Tank

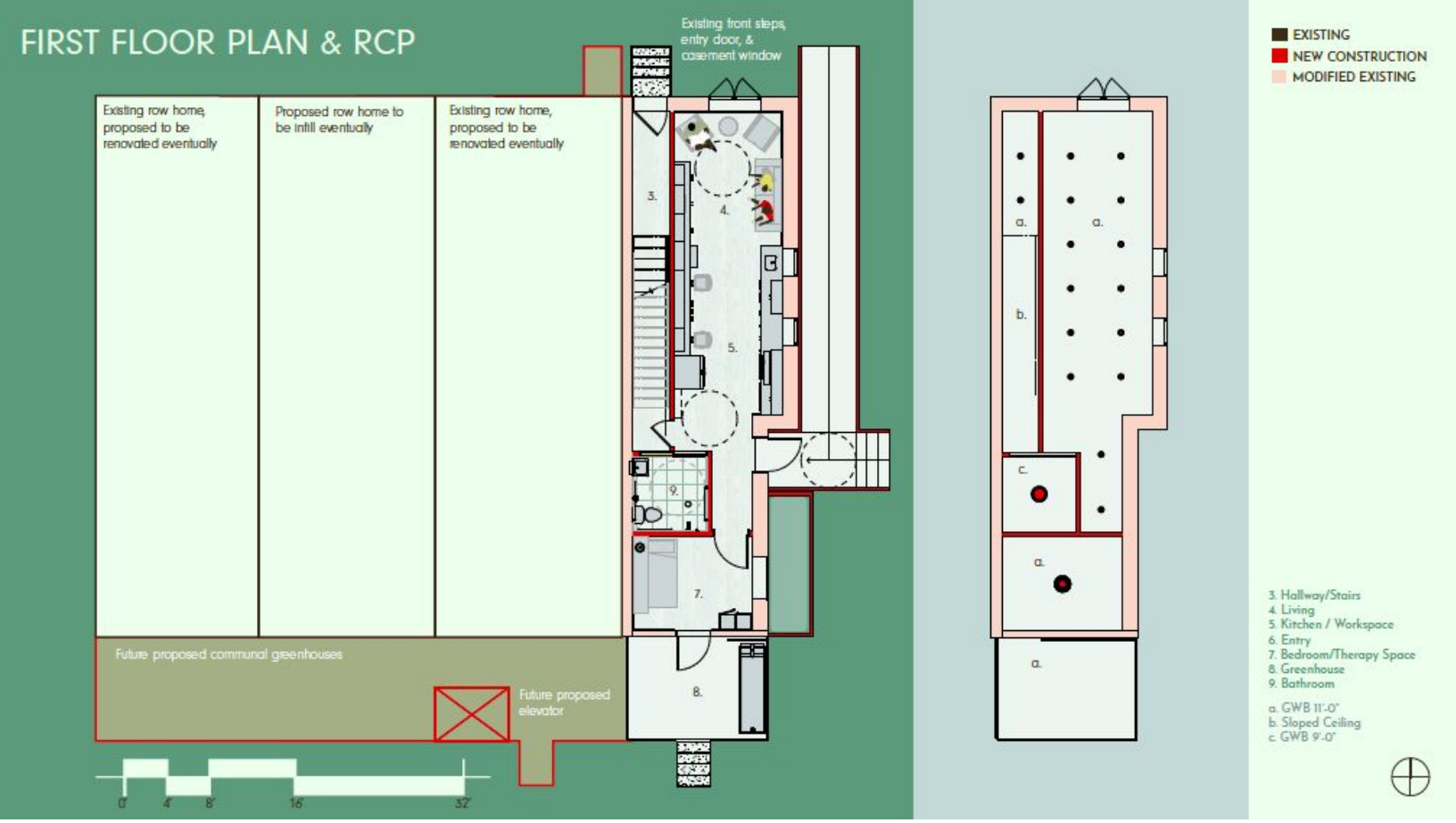
Aquaponics Assembly











Unit 1: Ground Level

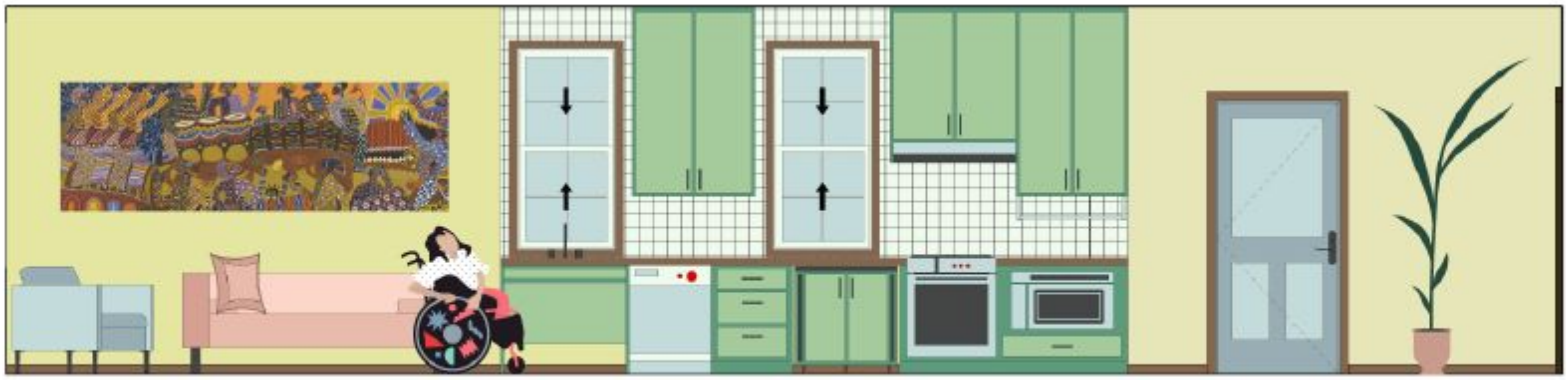
Programming

- Sleeping area/Therapy Space
- Living room/Meeting Space
- Kitchen/Workspace
- Bathroom
- Greenhouse

Notes:

- ADA accessible
- Pull-out sofa
- Flexible to meet Peace Park's needs

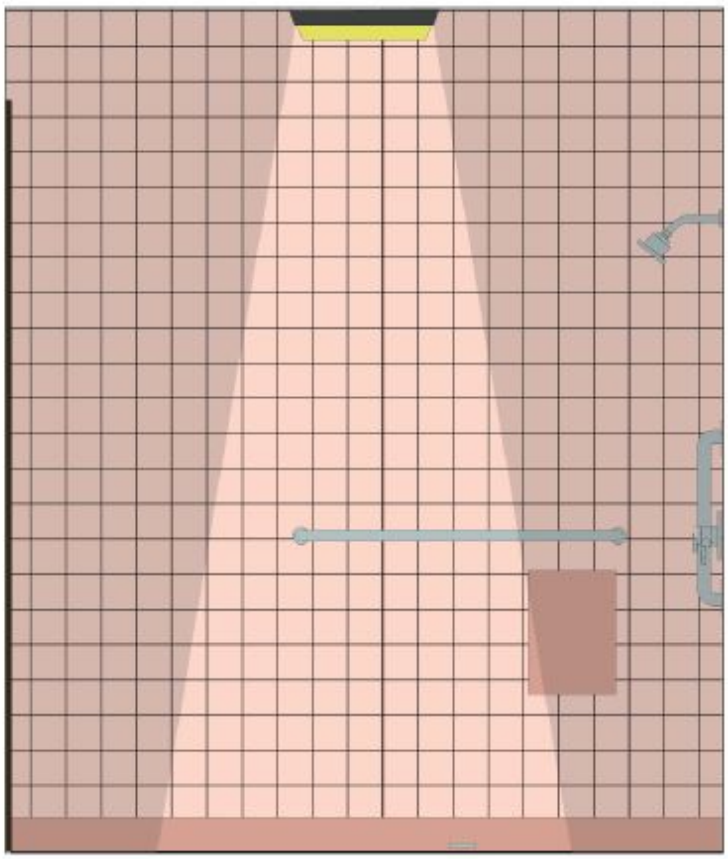
Living Room / Meeting Space



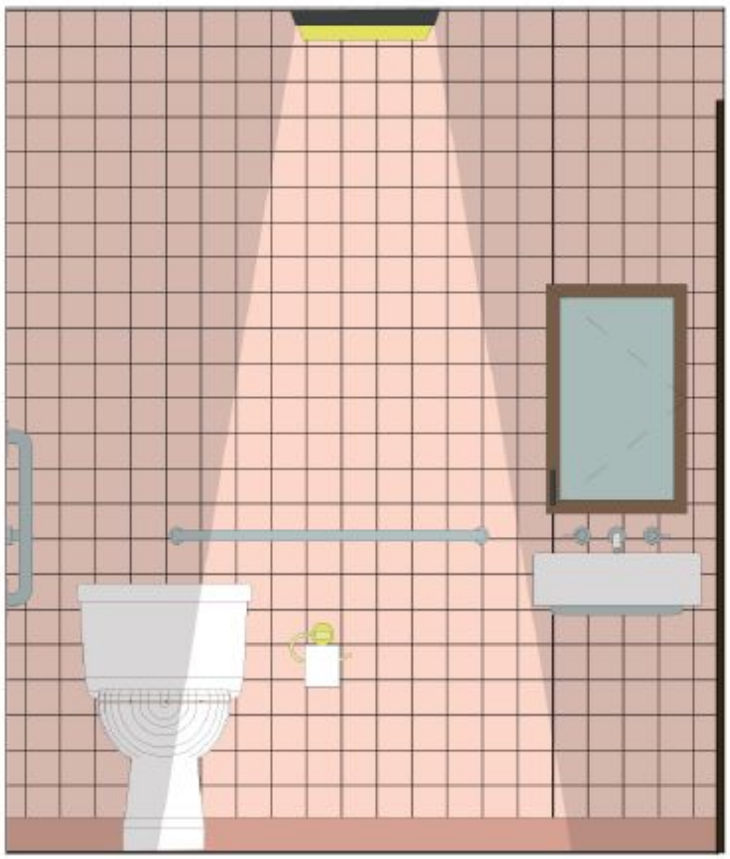
East

West

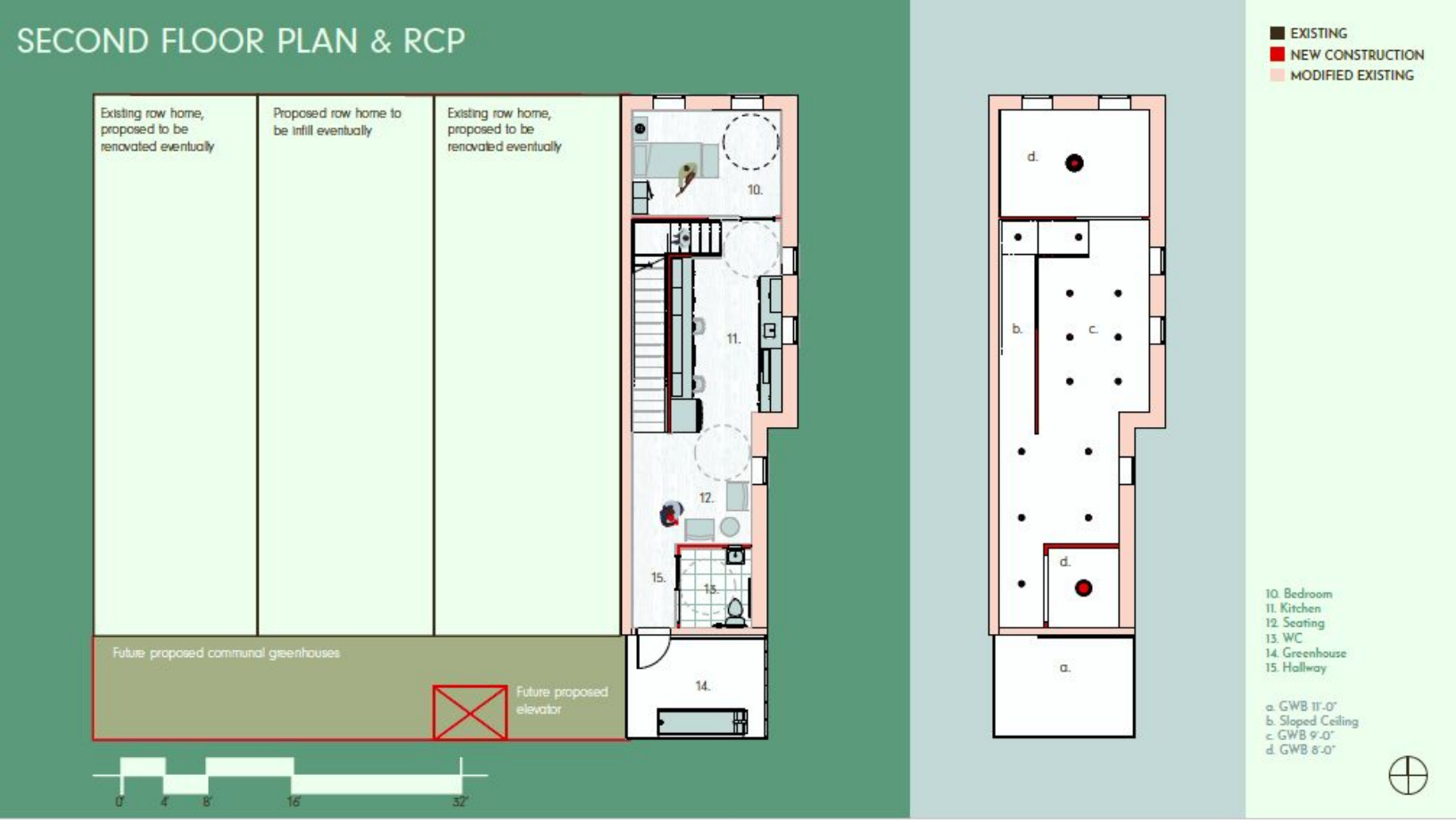
Sleeping Area / Therapy Space



Bathroom East



Bathroom West



Unit 2: 2nd Level

Programming

- Lounge
- Kitchen
- Bedroom
- Powder Room
- Greenhouse

Notes:

- ADA accessible with eventual elevator

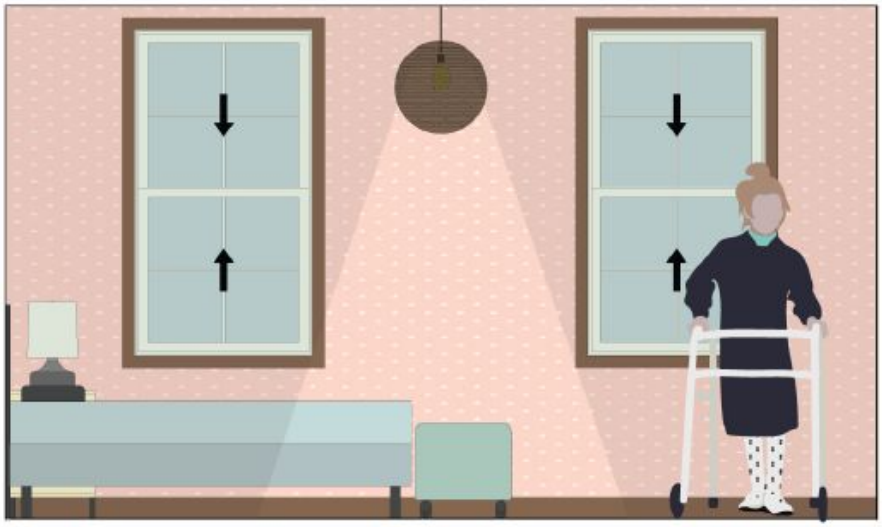
Lounge

East

North

West

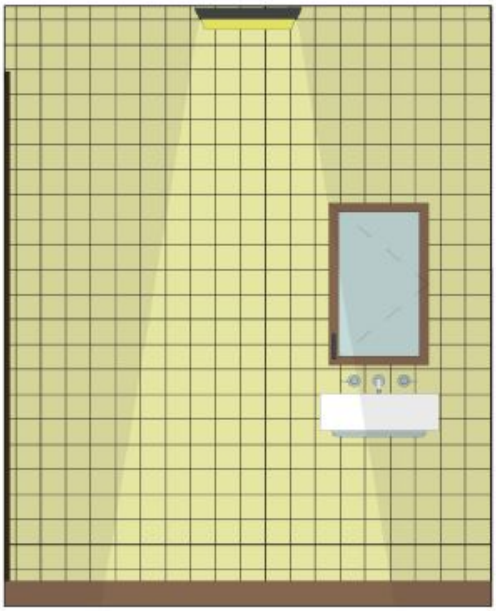
Bedroom



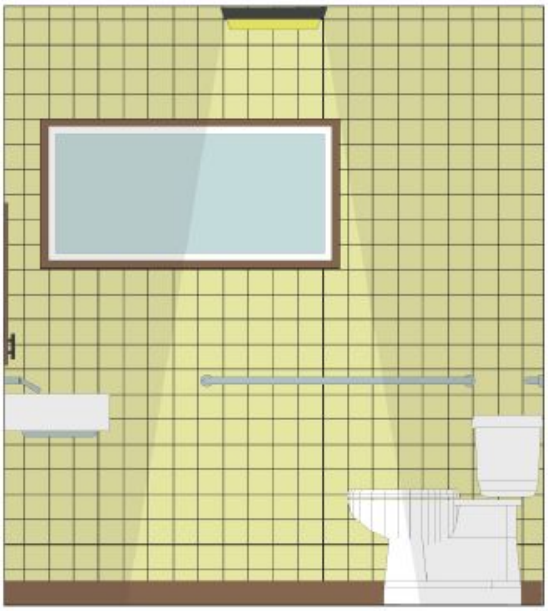
North

West

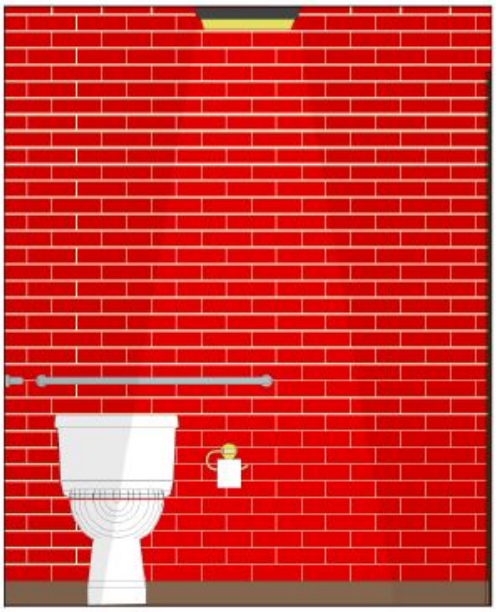
Powder Room



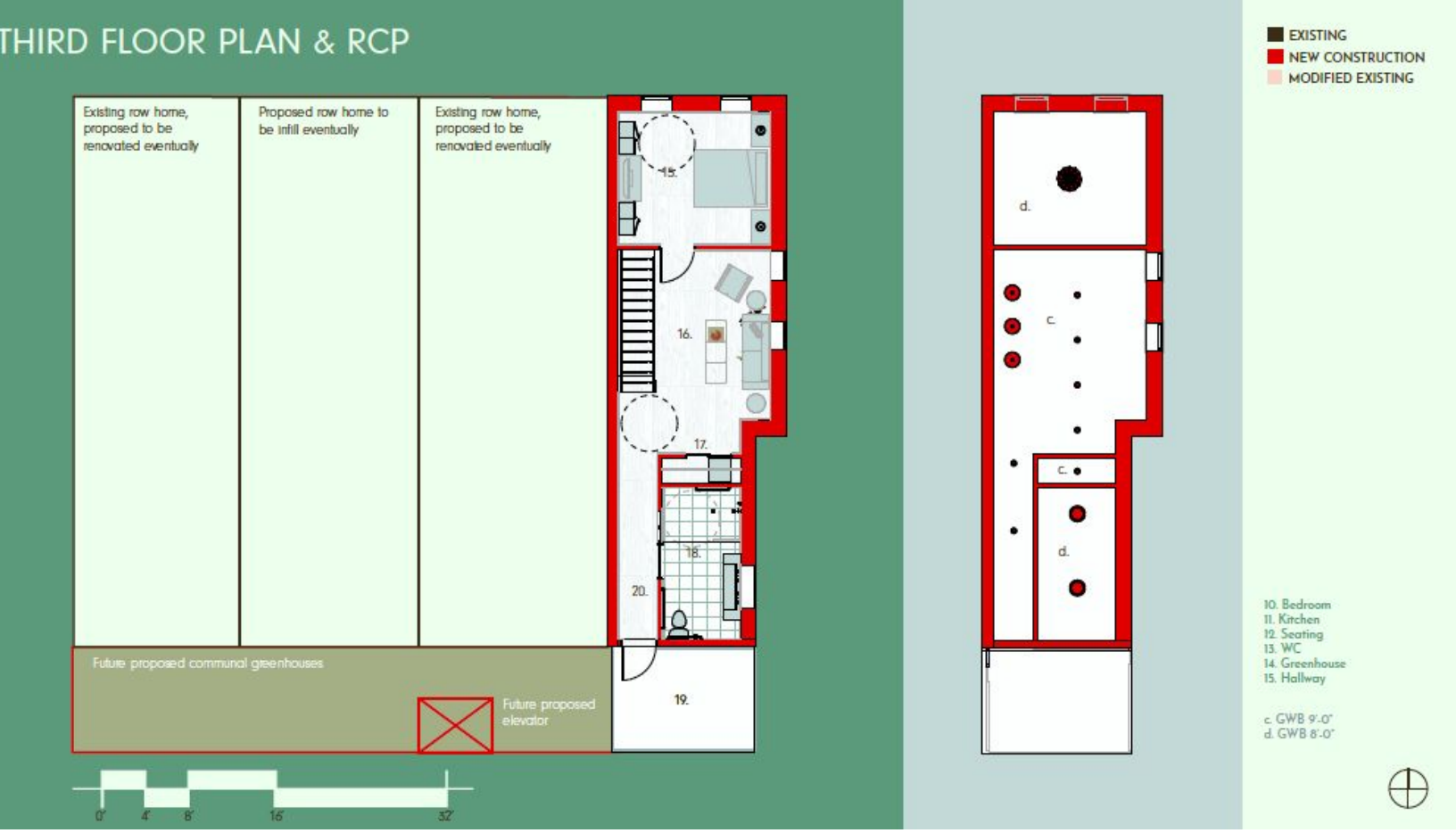
North



East



South



Unit 2: 3rd Level

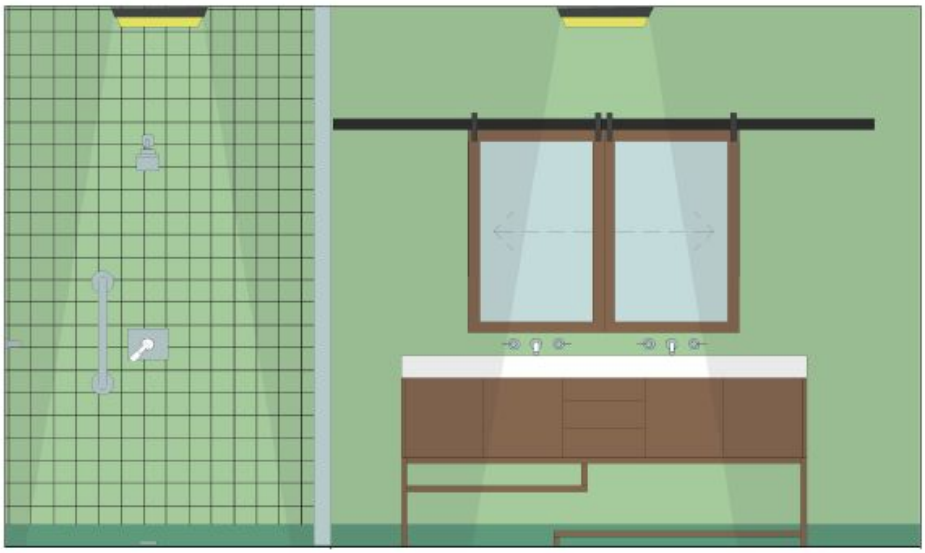
Programming

- Primary bedroom
- Upstairs lounge
- Large bathroom
- Greenhouse

Notes:

- ADA accessible with eventual elevator
- Lightweight movable furniture

Bathroom



East

Living Space

East

South

Primary Bedroom

North

East

SOURCING OPTIMIZATION

WASTE

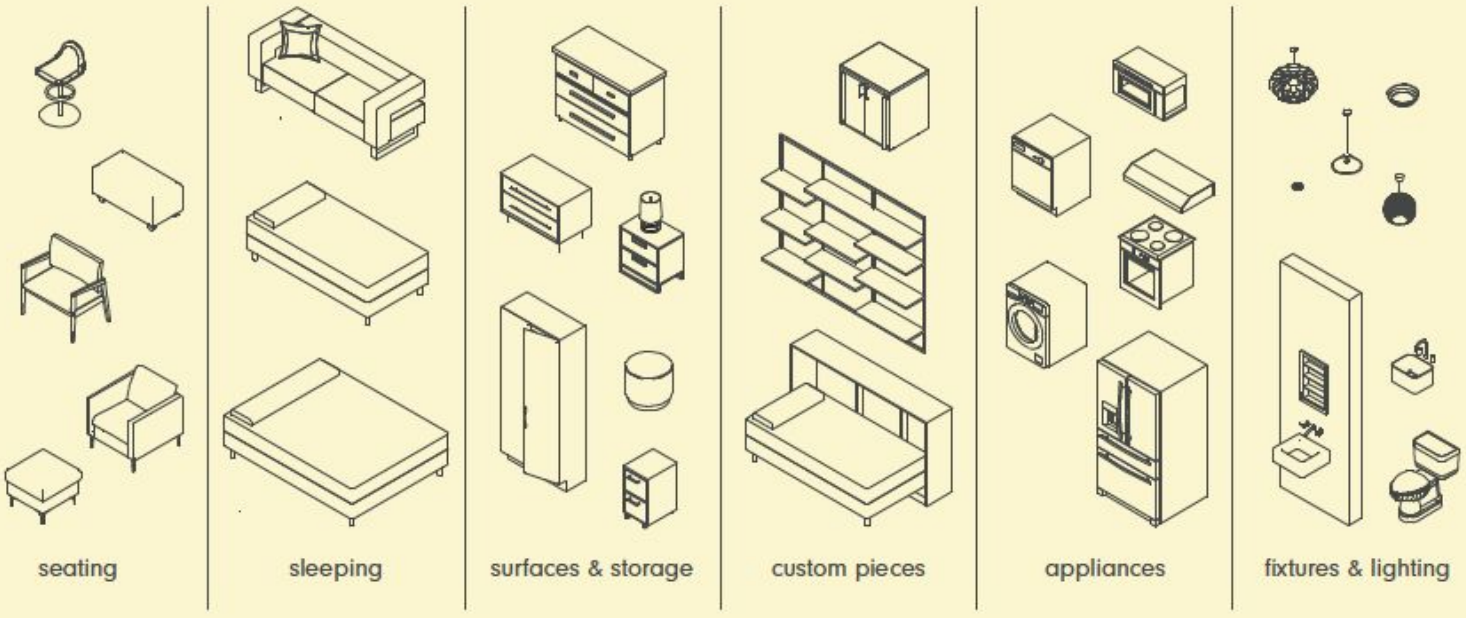
PRE - OWNED

LOCALLY & ETHICALLY SOURCED

ETHICALLY OUTSOURCED

DONATION FROM LARGE CORP

PURCHASE FROM LARGE CORP



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LINKS

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