PILOT 1: FARM BLOCK

x CURATORS

Multi-Scape Designers

ABOUT US

Hello.
We Are Curators.

A team of multi-disciplinary designers working to build better cities through design of the built world, strategies for resilient living and business.

Zoha the Analyst

MFA | Interior Design

MA | Design for Sustainability

Alexis the Storyteller

MFA | Design for Sustainability

M.Arch | Architecture

Cosette the Strategist

MFA | Design Management

MA | Graphic Design

Surajeet the Facilitator

MFA | Interior Design

MA | Furniture Design

Our Mission

We seek to **strengthen civic engagement** and **establish equity** through design interventions and the building of tools, collaborations, partnerships and services. At our core, we aim to **build purposeful relationships** between neighborhood, communities and organizations through creative ingenuity and technological awareness.

Our solutions are driven by contextual research and evidence-driven design to ensure we **promote collaborative value-generation** against a backdrop of global, regional and local areas of concern. While the challenges that link us offer significant starting points, it is the **aspirations** of fellow human beings that inspire us.

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Content

Our Last Conversation...

People are being displaced **physically** and **culturally**

How might we mitigate **displacement strategy**?

What makes people **stay**?

A Few Takeaways from

Charles Thomas, Rose Edwards and Alysa Osborne

We've spent some time speaking to some influential figures in the Charlotte community. The conversations we've had with these decision-makers have highlighted some areas that remain critical to community-building. These include access to **physical resources, safety, self-actualization and communal connection**. The **magnetism** of cityscapes is built or broken on the capacity of cities to provide in these areas through services.

Brain-drain and **displacement** are two major threats to the composition of cities. Introducing strategies to **mitigate the lack of retention** is a core component of site specific solution-building. Places that benefit those who keep them afloat, in turn, offer citizens reasons to stay. The key to this work is to address human expression of concerns and aspirations in addition to things they may not know they needed.

source: https://charlottenc.gov/charlottefuture/2040Plan

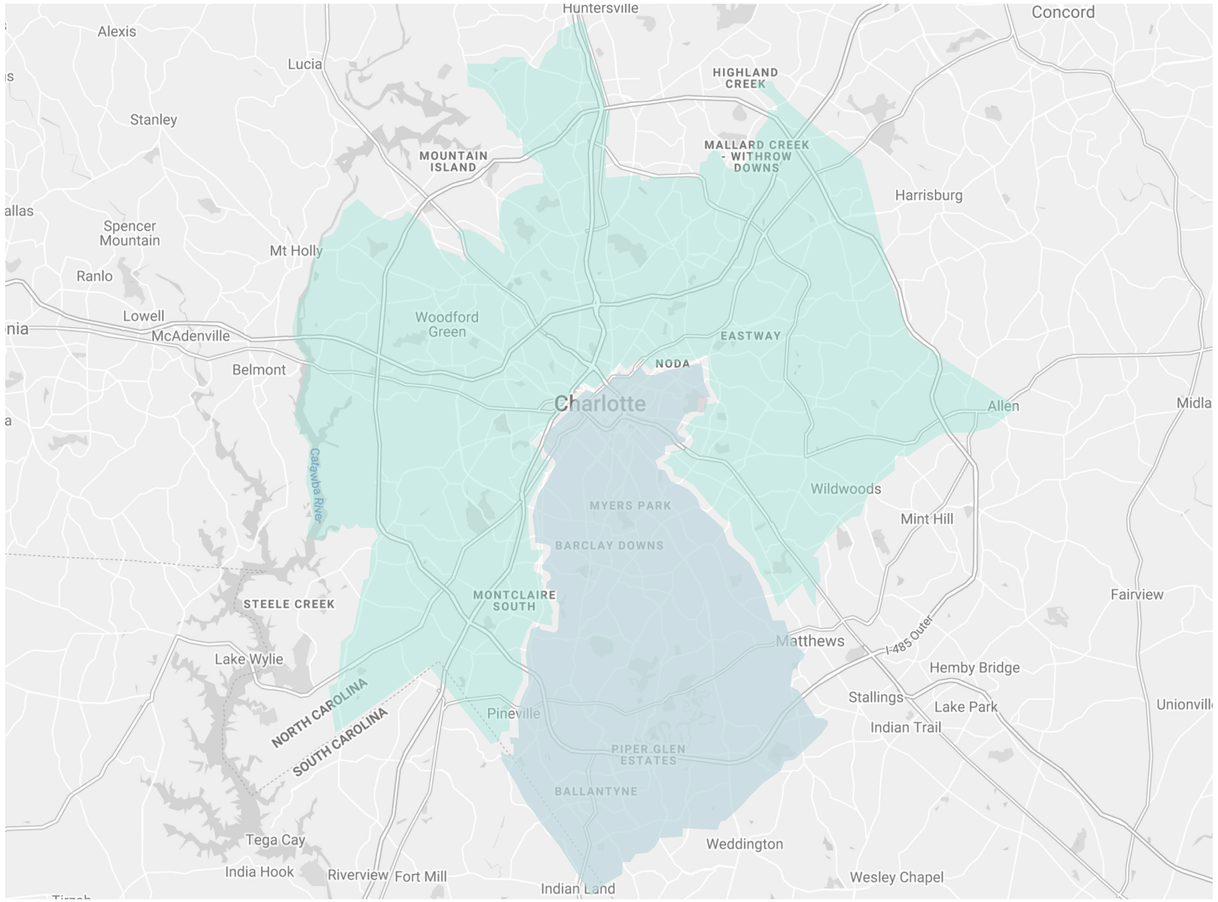
The Pricetag of Growth and Development

Debt

Lack of Resources

System Traps

The Great Divide



The Arc:

Diverse communities

Experience Poverty

Low Civic Engagement

Low Voter Participation

The Wedge

Higher Income

Largely Racially Homogenous

Higher Voter Participation

Research Methods + Findings

Interviews: Citizens of the Arc

Literature Reviews

Organization Based Documents:

Envision Charlotte

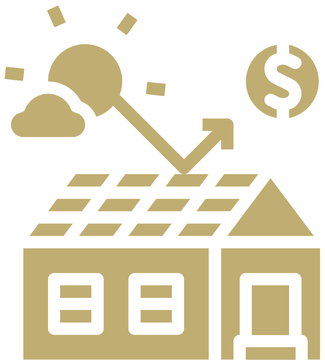
Sustain Charlotte

Center for American Progress

Charlotte Future 2040, Comprehensive Plan

Grocery Gap

Access to Potable Water

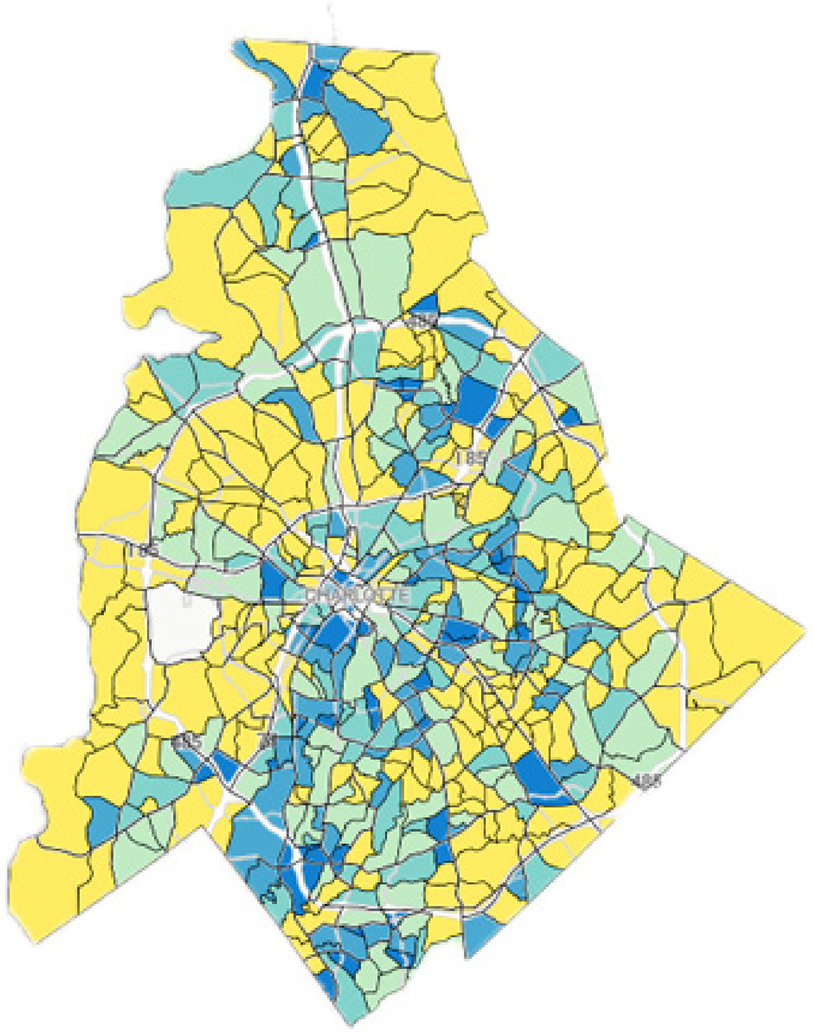


Energy and Utitlity Cost

The Numbers

Grocery Gap

70% of housing units in Mecklenburg County did not have a full-service grocery store within an acceptable distance (within ½ a mile).

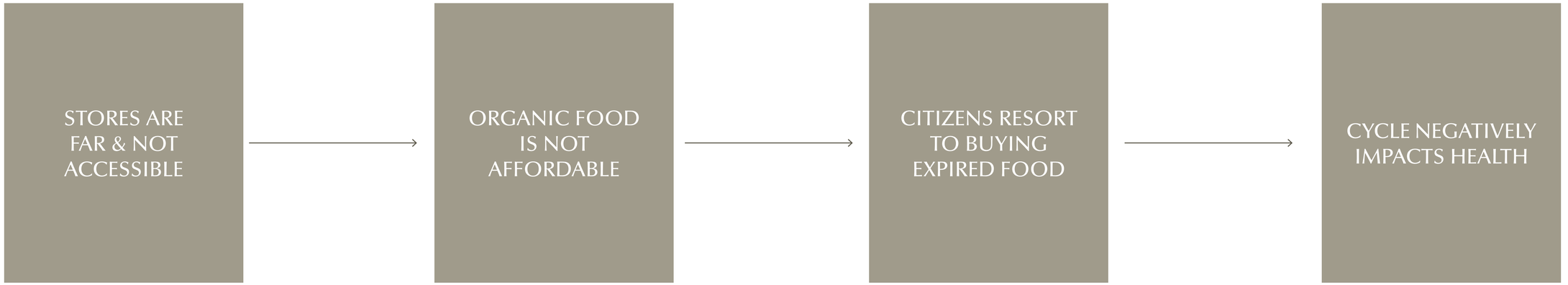


Access to a Full Service Grocery Store, 2018 :

- 0 %
- 11-30%
- 31- 50 %
- 51 - 74%
- 75 - 100%

source| mcmap.org

Food System Trap



Water

141,000 Impoverished residents would be unable to afford the purchase of potable and drinking water. The rupture of Duke Energy's waste retention pond in 2014 spewed coal ash into North Carolinians' drinking water and **damaged riparian ecosystems**. Hotter Climate will magnify the regions drinking water concern, particularly for **low-income residents**. Potential cuts to resident's public water usage. **Urban and and agriculture** runoff to pollute the Catawba River.

Water System Trap

HEAVILY RELIANT ON CATAWBA RIVER BASIN → SEWAGE FLOW INTRODUCES BACTERIA → DISRUPTION IN WATER CYCLE AND WATER CRISIS (By 2041) → URBAN AND AGRICULTURAL RUNOFF

Energy

$17.71 above the U.S. average monthly utility bill.

Monthly Average Utility Cost :
Charlotte: $169.79
San Francisco: $154

Energy System Trap

Knight Foundation
Project Alignment

Public Spaces: Design, construction and programming of inclusive and equitable public spaces.

Opportunity: Inclusive and effective pathways to economic opportunity.

“Smart Cities” as Responsive Cities:Technology-enabled efforts that help residents connect to each other and become more informed, and that help cities be more responsive to residents.

Center for American Progress

"State leaders must take the following six actions"

Create standards for building clean and resilient infrastructure and housing

Prioritize equitable housing policies and just community development

Accelerate cleanup of toxic sites and flood mitigation

Provide equitable access to clean and affordable energy

Support a just transition to clean energy

Foster inclusive and equitable public engagement

Center for American Progress

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A **Design** Intervention

Building **vital collaborations**

Communal space for people of **any background**.

A New Set of Questions Emerged

Question Number One

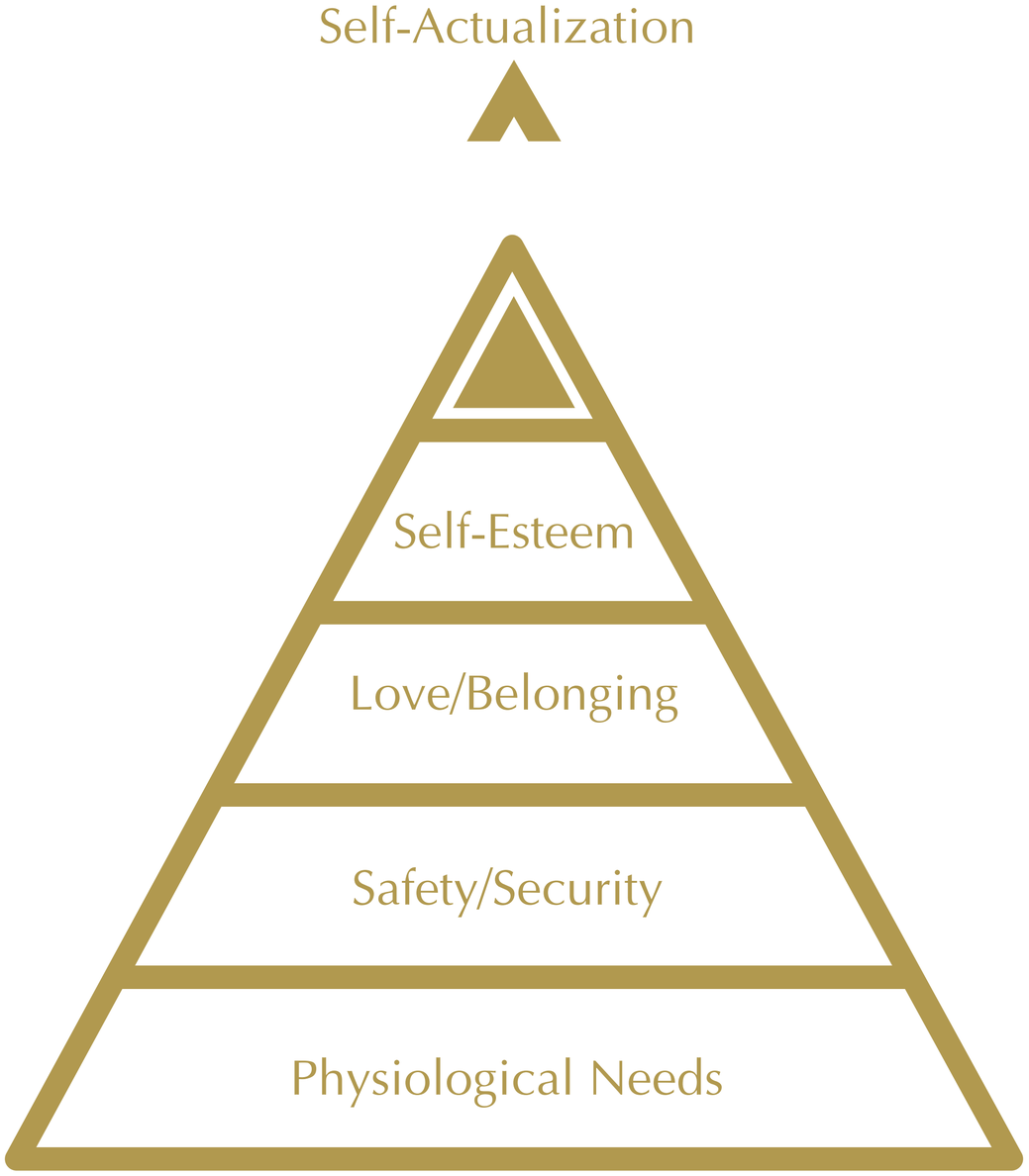
How might we increase access to affordable organic food, clean water, and energy?

Question Number Two

How might we strengthen the links between the Arc and the Wedge?

Question Number Three

How might we help the citizens of Charlotte transition into and accept the current and future challenges posed by future growth and development?


Self-Actualization
Self-Esteem
Love/Belonging
Safety/Security
Physiological Needs

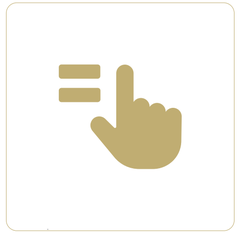
Our
Building Block

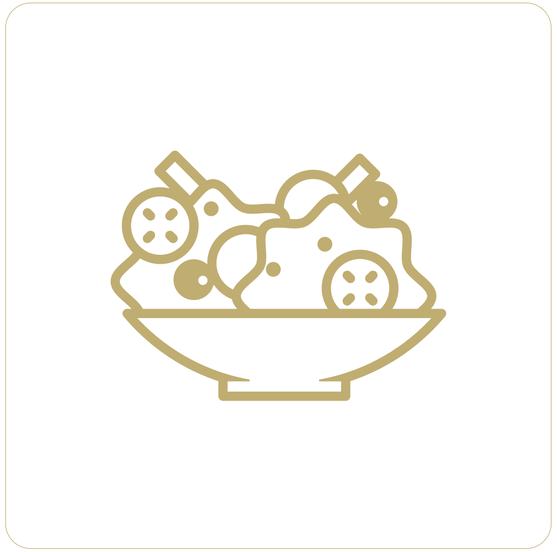
1. Diverse and Inclusive community
2. Eqitable Access and Development
3. Thriving Economy
4. Inviting Spaces

Finding a Measured Response

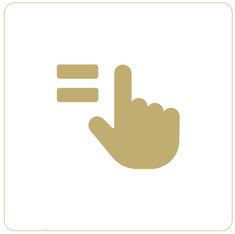
Small, thoughtful interventions often lead to bigger mechanisms of change—when we've calculated correctly, these things prove transformative.

By This, We Can

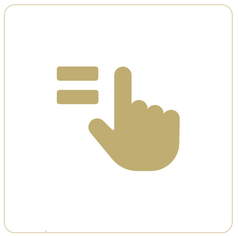


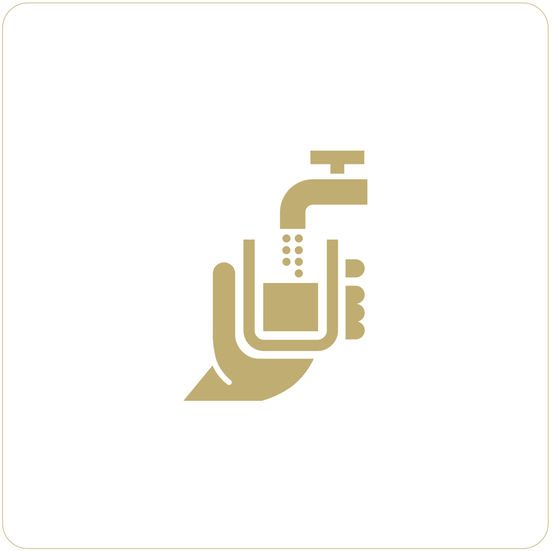


By planting seeds, we can feed citizens

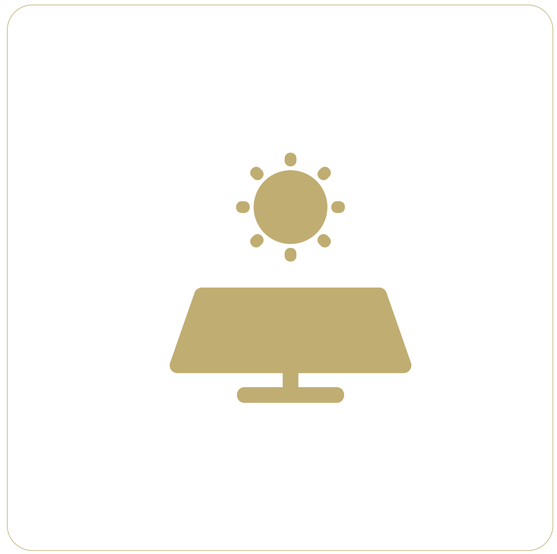


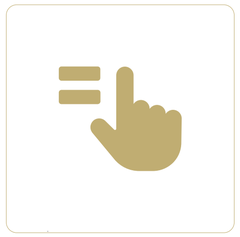
By placing trees, we can increase the tree canopy

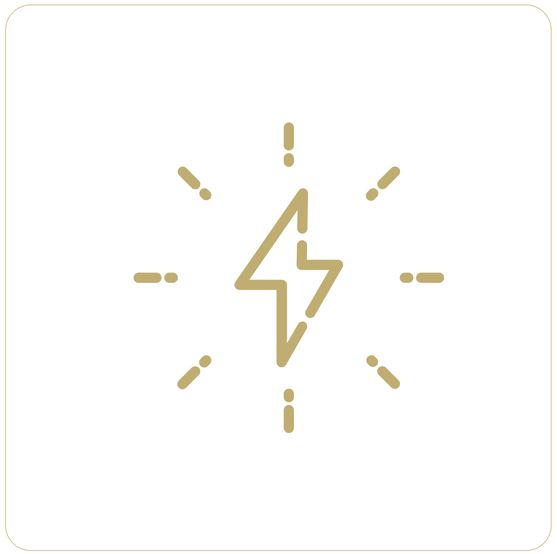




By capturing the rain, we can quench thirst





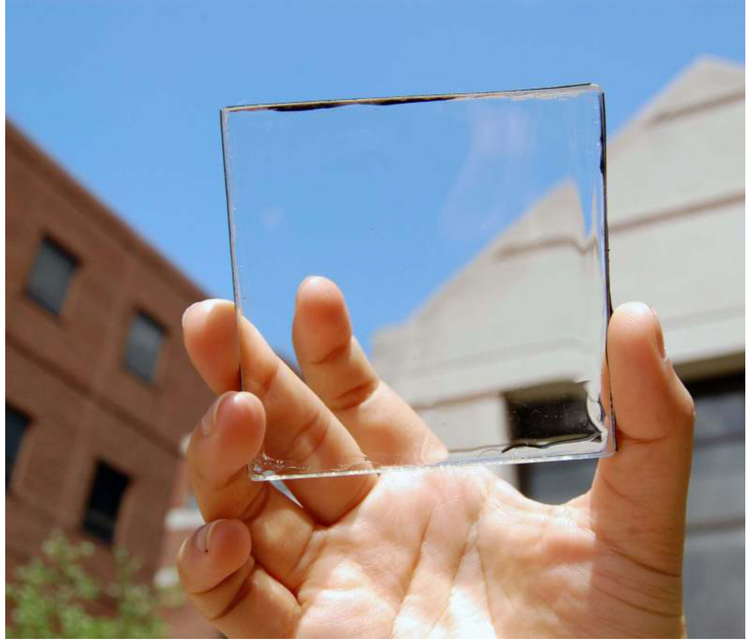


By capturing the sun, we can power our intervention long-term

Farmblocks

Leaning on emerging technological innovation, farming blocks provide clean food and potable water within a shaded environment that’s core purpose is to support interior controlled farming; powered by Ubiquitous Energy.

By providing space for partnership, we can make indoor controlled farming for all a reality



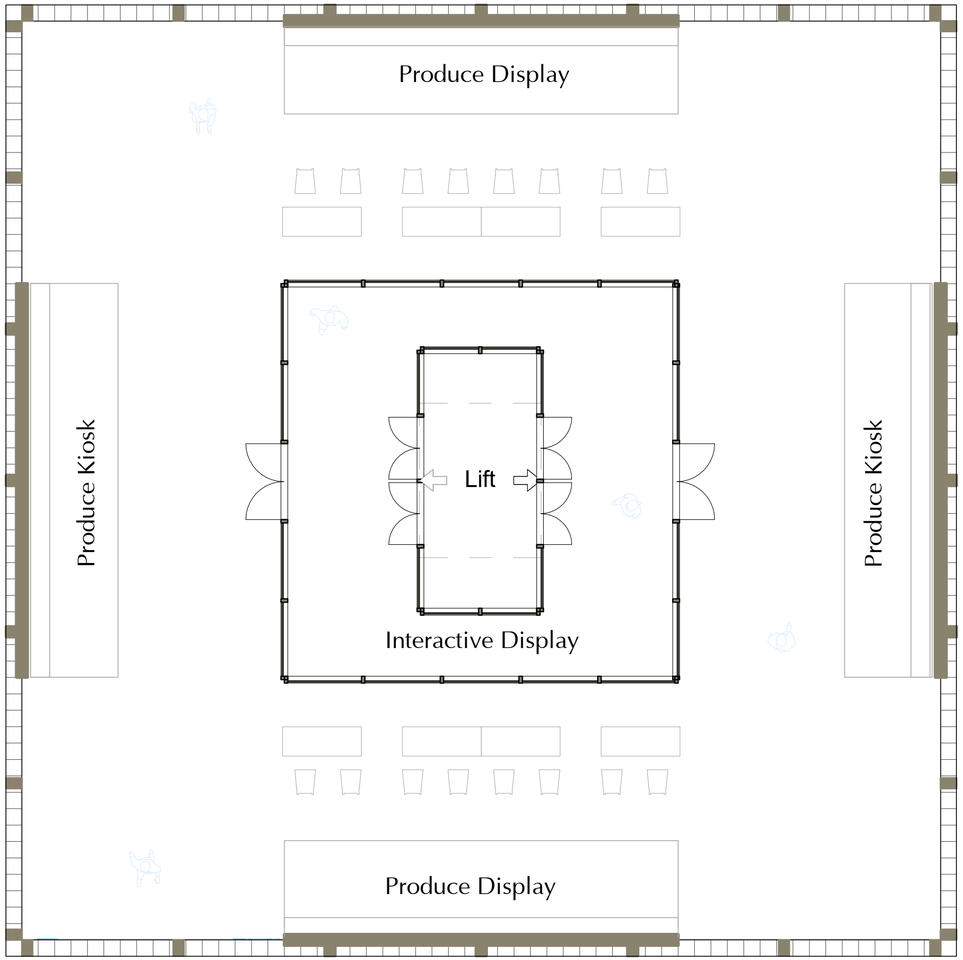
Transparent Solar Panels

1. Up to **80%** Transparent Windows
2. **Seamless** transfer of energy
3. **Facade-based, Maintenance-free**

Sustenir
Agriculture

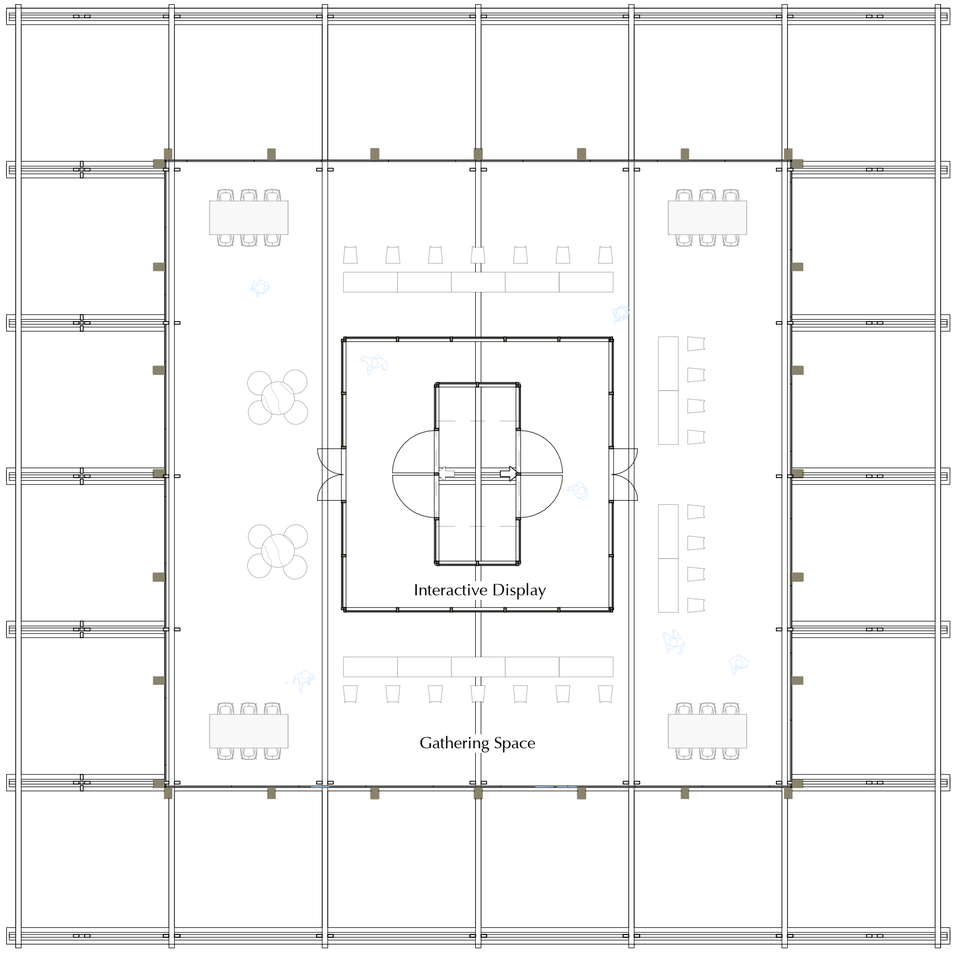
1. Fast-growing Industry
2. Scalable Clean Food Production
3. Increased Vitamins
4. 85% Less Fertilizer
5. 95% Less Water
6. Reduction of Carbon Footprint

Intervention Composition



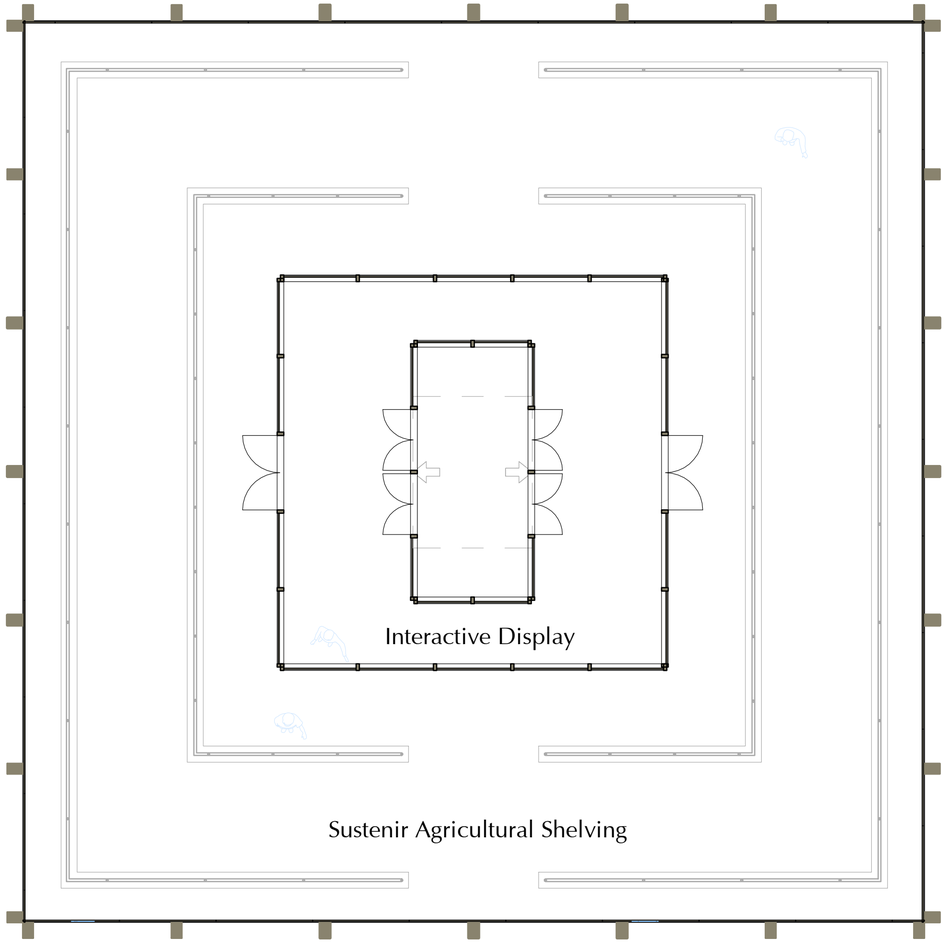
First Floor
Procure

The Design consist of three levels, depending on the function and intention of the space. The first floor features a **Sustenir Marketplace** where there are display areas that guide vistiors through the process of food production and water collection. Inspired by a farm to table composition, this small interior space serves to encourage an intimate relationship between citizens and food produced for them.



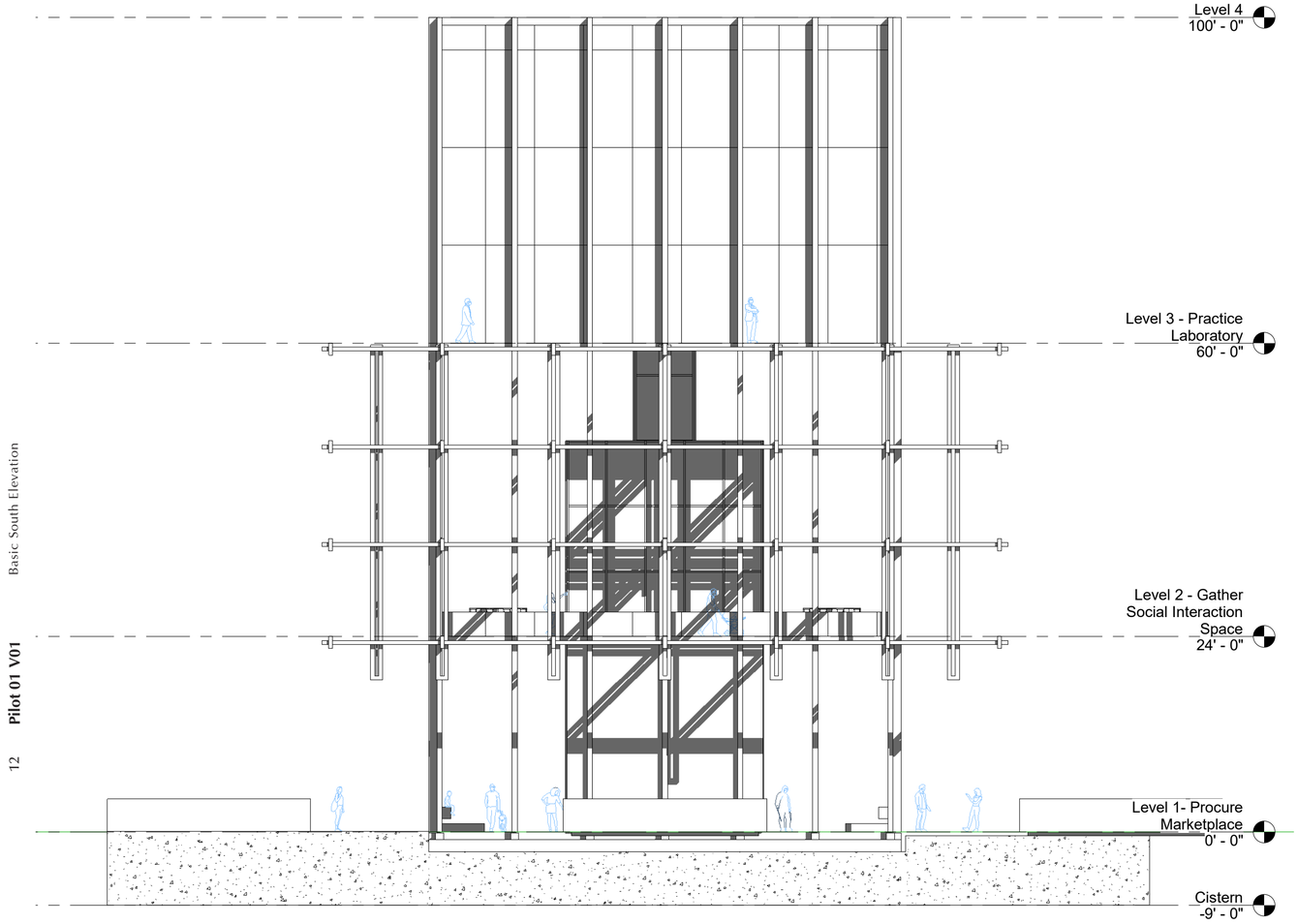
Second Floor
Gather

The Second Floor consists of a **social gathering space** where the citizens can come together to work and engage with each other and enjoy the food which is produced in the lab. There are **food and salad bars** which promote the **healthy eating lifestyle** in inhabitants.



Third Floor
Practice

The third floor features the Labs powered by Ubiquitous Energy. They produce food for distribution and consumption safely and affordably for citizens. Here, citizens are allowed on monthly/weekly tours to see the workings in the lab. They become aware of these new technologies and get inspired to **grow local, employ local and produce local** (possibly at home)**.**



Basic South Elevation

12 **Pilot 01 V01**

Building Facade Elevation

The building facade features concrete CMU block and Accoya wooden columns and beams to blend the materials associated with both nature and urban industry. Wooded Scaffolding resembles the branches of trees; a visual metaphor that links the built work to the expanded tree canopy. This interplay of light is enhanced by the support of flora and fauna. The Laboratory sits above where food is produced.


Glazing- ClearView Power
Structural Framing - Wood Glulam,
Accoya Wood
Paneling - Concrete CMU Blocks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This solution offers:

100% indoor food production
100% natural energy
100% rainwater will be used for irrigation

Focus Group
Millenials + Gen Z

Research has highlighted these two groups have a shared need to express and support their ideals through **public platforms** and in **purchasing power**. As the foundation for this **active** and **vocal generation**, the support and interest of these groups is integral to the foundation of future generations.

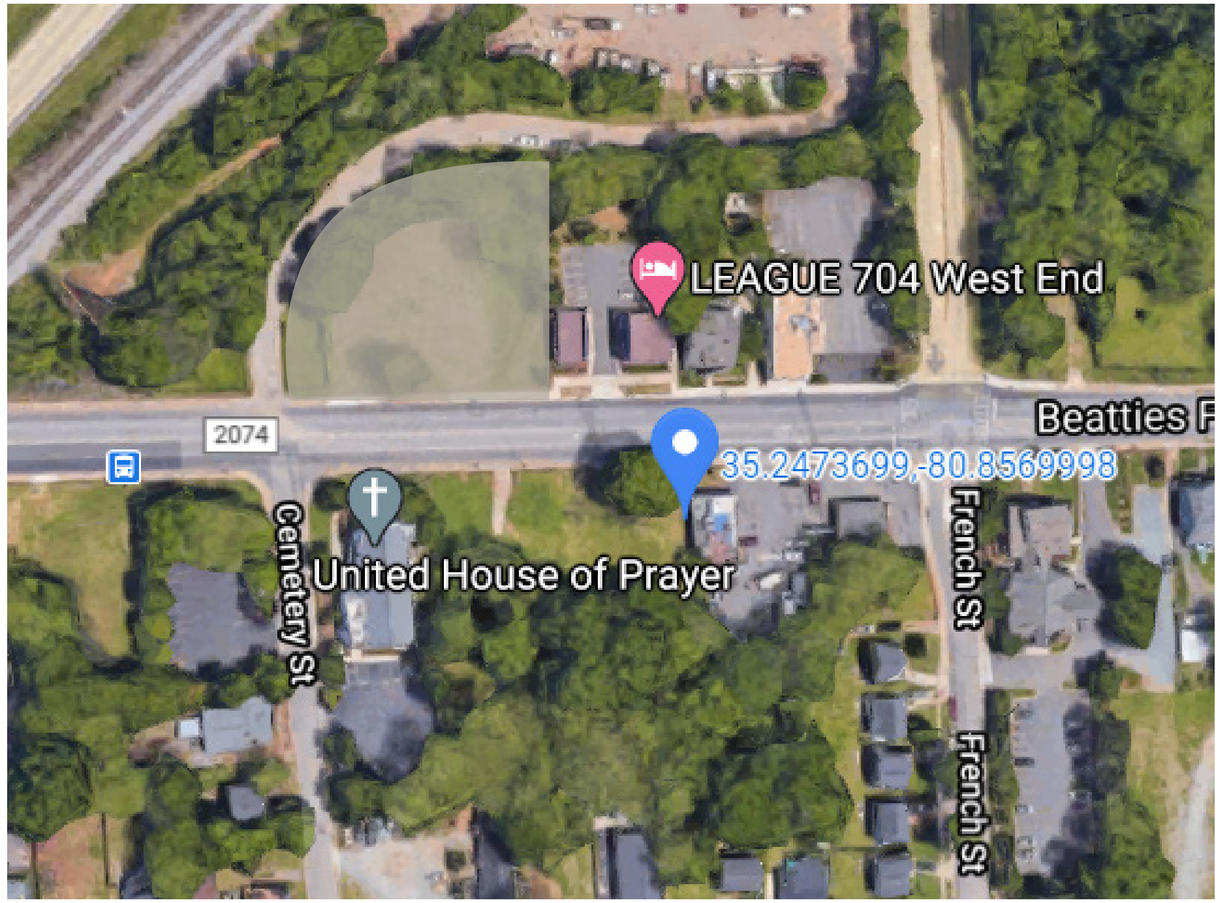
Millenials are not only accustomed to technology, they helped build it. Generation Z similarly, has changed the ways in which it can be used. Both are open to **adopting new ways of living and working**.

Site The Arc The Wedge The Great Divide

Proposed
Site Intersection

We've discussed the Arc and Wedge under a lens of characteristics unique and separate in nature. However, such a project-placed at the meeting of these two regions-provides an opportunity to build strong emotional and physiological linkages that could begin to transform these two areas of note's experiences and conditions.

By implanting these green nodes, which also support the generation of flora and sheltering of fauna, this intervention may significantly improve the green-scape presence within this particular area.



Site

League 704 West End

House of Prayer

Mama Gee's

Possible Site Selection

Located along the intersection of Beatties Ford Road and Cemetery Street, the proposed site sits within the gaze of Johnson Smith University, the West Water Treatment Plant, United House of Prayer Church and public transportation stops.

Budget

Square Footage

Built Floors: 3,136SF (could be less)
Site: 28,224SF l 168′ x 168′ Square Plot of land

Floors: (3 Floors x 56′ x 56′)

BARRINGER CONSTRUCTION : $250 -$300 SFT

Seeking a Cost Effective Partnership

The Run Down

What?

A center which supports new-age controlled farming for the production of food. Using revolutionary techniques for energy consumption and utilization, this intervention also serves to educate the public on food consumption, growth and ways to connect with one another around a physiological need.

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The Benefits?

The Introduction of Farmblocks closes the gap between citizens and organic food, captures and treats rainwater, supports sustainable access to affordable clean food, increases the tree canopy and encourages community gathering and participation. There is also opportunity to build interest in entrepreneurial farming and innovation within the city.

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Time Frame

Prototype and user testing : **6 - 8 months** allowing for the co-building of value and feedback on performance.

Step 1: (OCT 2020)

Research and neighbourhood survey

Step 2: (NOV 2020)

Collaborating with Partners

(Sustenir Agriculture,Ubiquitous Energy

Step 3: (JAN/FEB 2021)

Developing MVP

(Minimum Viable Product) and Prototyping

Step 4: (MARCH- MAY 2021)

Design Implementation and Execution

Future Iterations, Goals and Evolution

A) The facilitation of all 17 SDGs by UN.

B) Modular replication in multiple places around the cities.

C) Paths toward the future (20 years from now) focused on the challeneges posed by population growth

Addressing the Vision

Technological advancement is not enough. Ingenuity requires that we consider the benefits of innovation, technology and unique partnerships to address visionary goals and collective concerns.

QUESTIONS + FEEDBACK