



Carver House

A Pilot Project for the scaling of Passive House rehabilitation of vacant row homes in Baltimore & developing a high performance building workforce.

Who we are



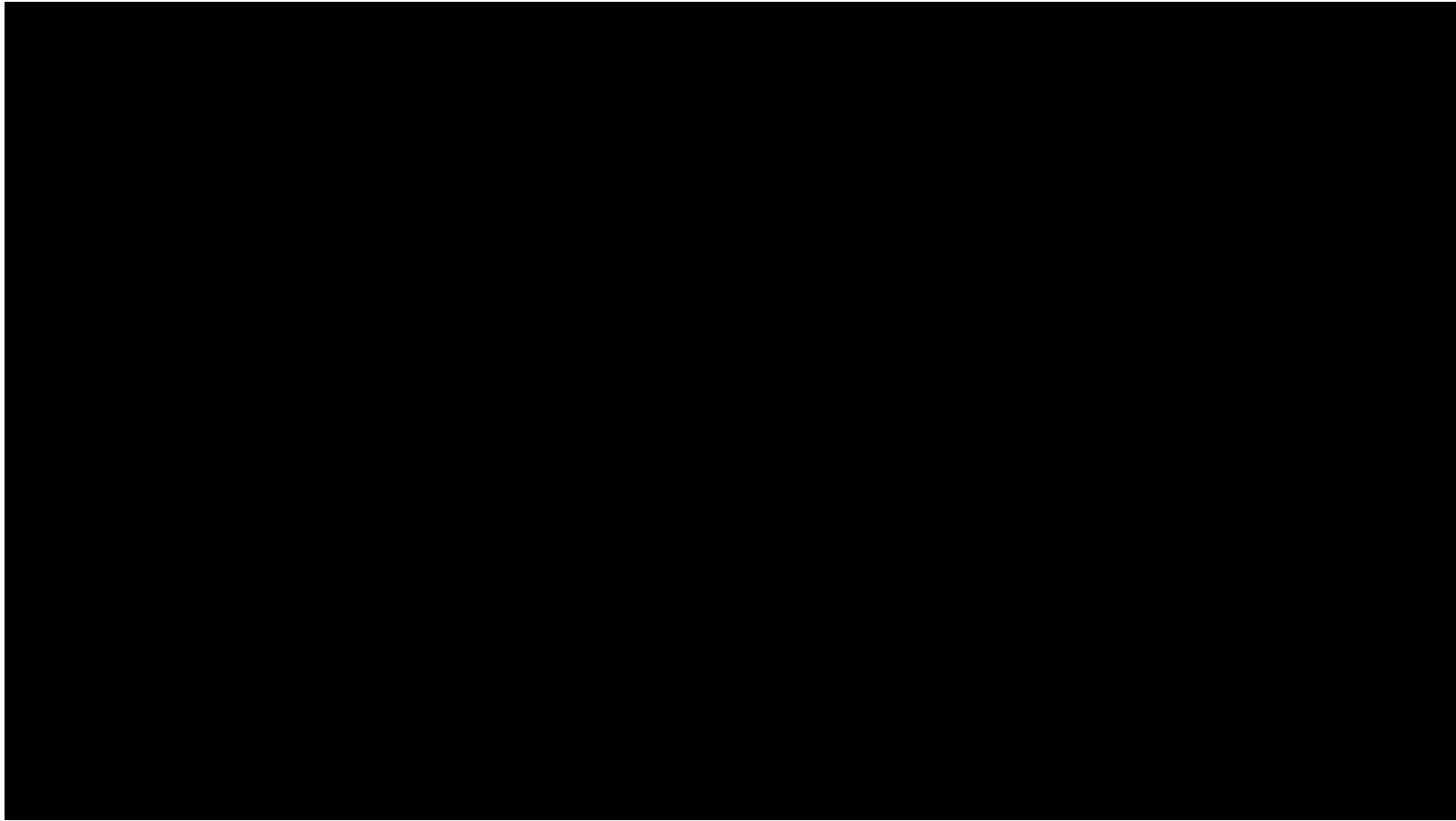
Marc Stauffer
*Director of Design and
Construction*



Michael Rosenband
*Founder and Executive
Director*



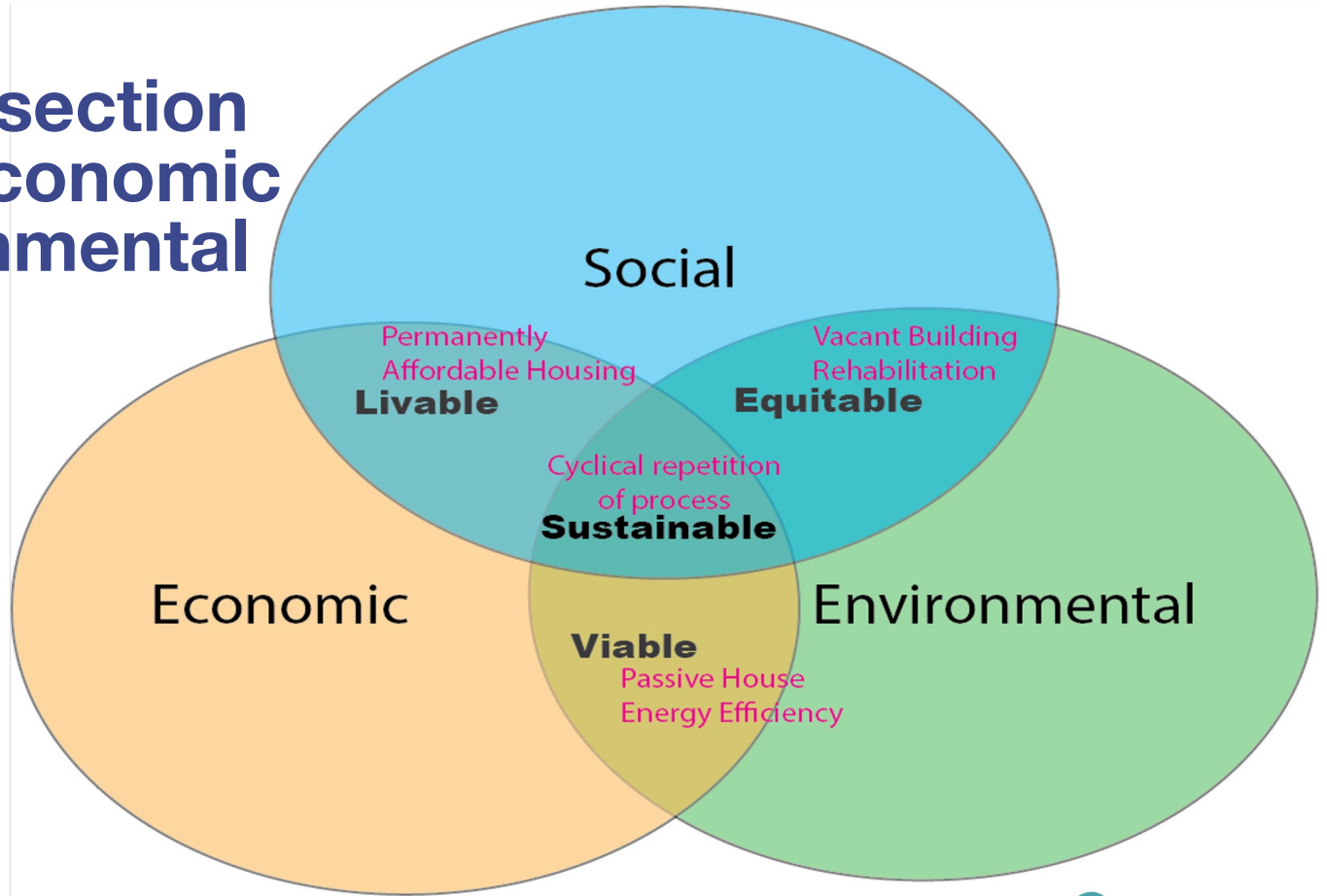
Timmy Aziz
*Director of Architecture &
Education*



Agenda

1. The intersection of social, economic and environmental challenges.
2. Strategies for the high performance rehab. of a vacant row home.
3. Investing in the Carver House.
4. Impact and Positive Change.

1. The intersection of social, economic and environmental challenges



CHALLENGE

Greater Rosemont Neighborhood

Location Map with Carver
Tech, 2212 Presstman



2100 Block, Presstman Street, West Baltimore

CHALLENGE: UNMET NEEDS

Greater Rosemont Neighborhood

- **2.5X** number of vacant buildings
- **17.8%** unemployment rate
2.3 x times Baltimore City
- **20.9%** family poverty rate
39% higher than Baltimore City
- **\$37,490** median income
28% less than Baltimore City

Source: Baltimore Neighborhood Indicators Alliance, 2020 Vital Signs dataset

CHALLENGE

Carver Vocational Technical High School



Carver Trade Students, Carver House, Fall 2021, West Baltimore, MD.

CHALLENGE: UNMET NEEDS

Carver Vocational Technical High School

- **Baltimore City vocational students earn \$13k annually 6 years after graduating**
- **MD. Construction industry 12.6% 5yr growth projection**

Source: Fund for Educational Excellence

Source: MD Department of Labor

**VOCATIONAL
TECHNICAL
HIGH SCHOOL**



**WORKPLACE
INDUSTRY
CAREERS**

**VOCATIONAL
TECHNICAL
HIGH SCHOOL**



**WORKPLACE
INDUSTRY
CAREERS**

**VACANT &
ABANDONED
BUILDINGS**



**AFFORDABLE
HOUSING
OWNERSHIP**

**VOCATIONAL
TECHNICAL
HIGH SCHOOL**



**WORKPLACE
INDUSTRY
CAREERS**

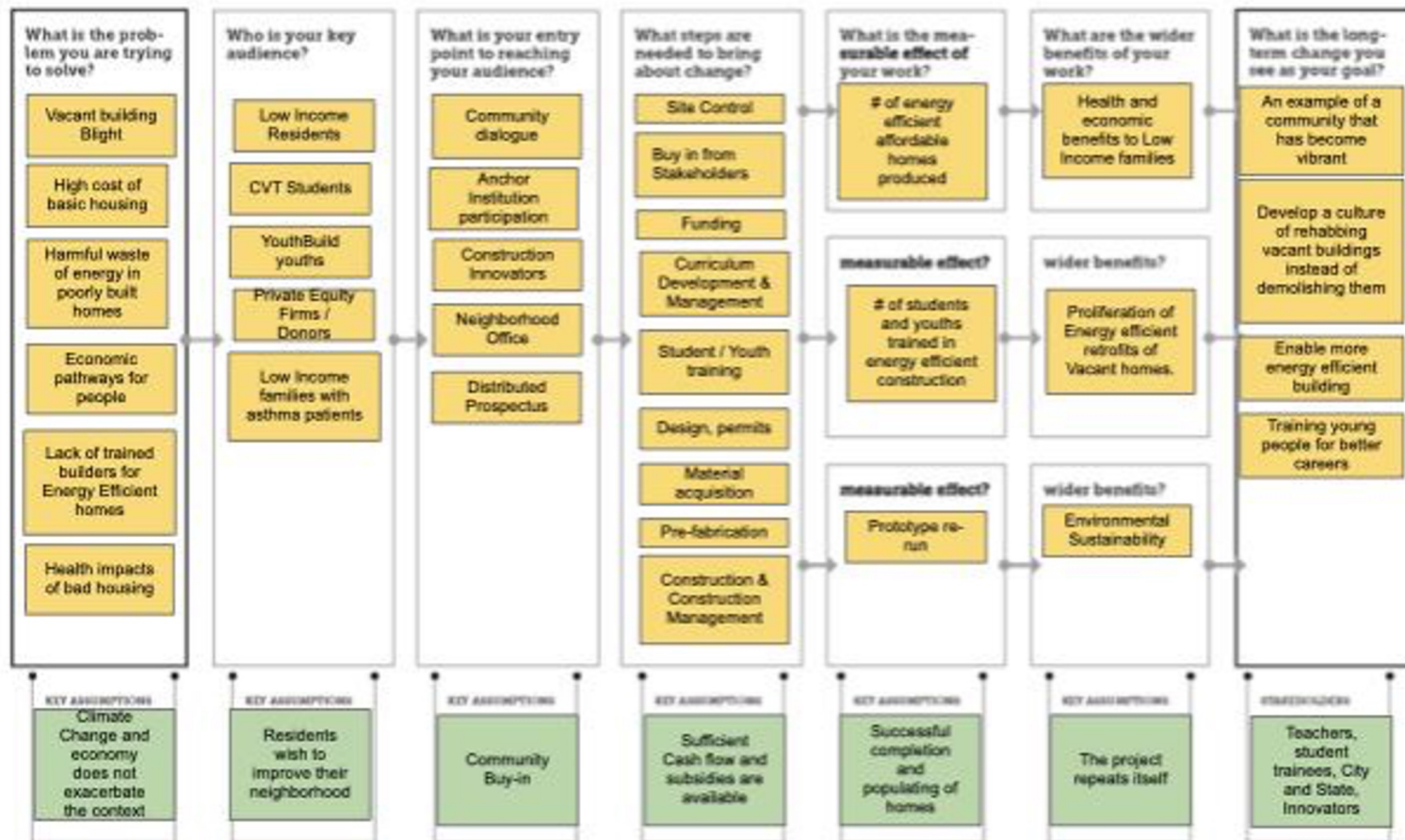
**WASTEFUL
& TOXIC
DEMOLITION**



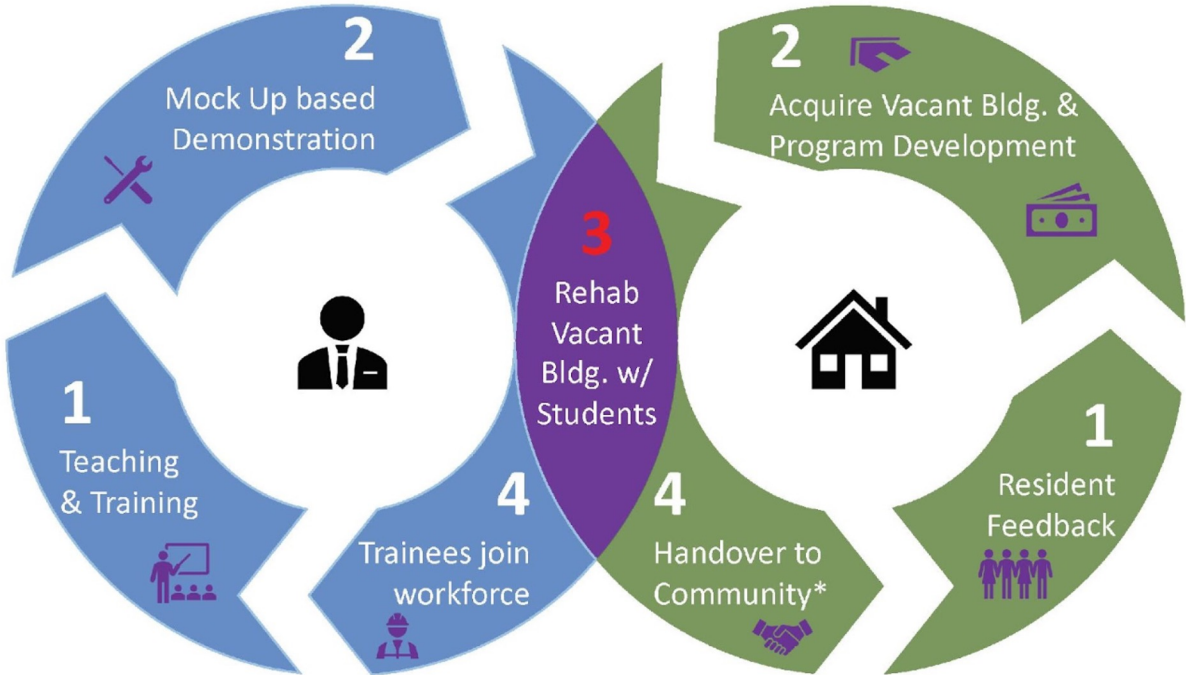
**PASSIVE HOUSE:
SUSTAINABLE
HEALTHY & NET ZERO**

If vacant row houses can be used as learning tools and community catalysts, they can be transformed into vibrant homes and inspire other positive change.

THEORY OF CHANGE



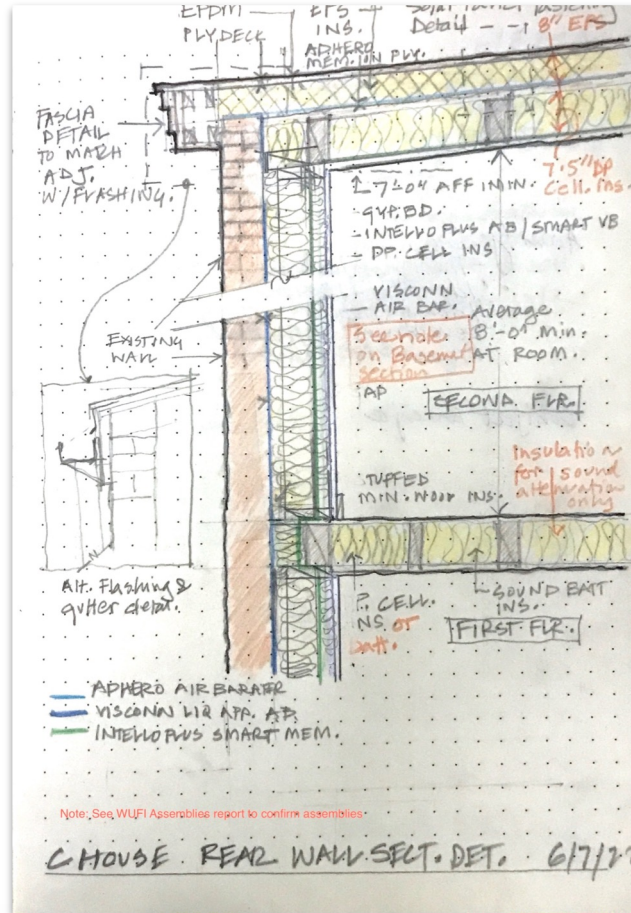
PROJECT STRATEGIES



Enhanced Workforce

Energy Efficient

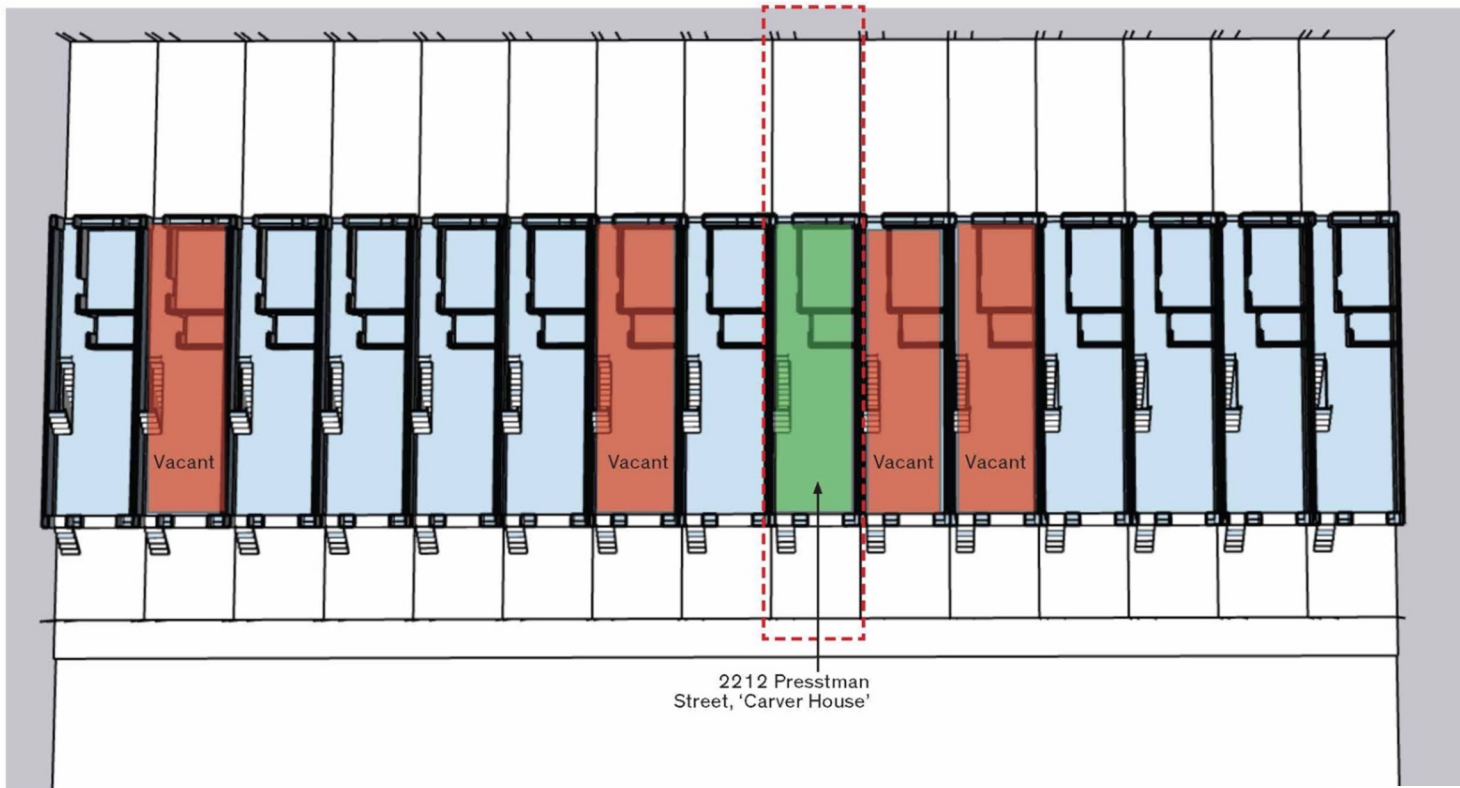
2. FRAMING THE TECHNICAL CHALLENGE



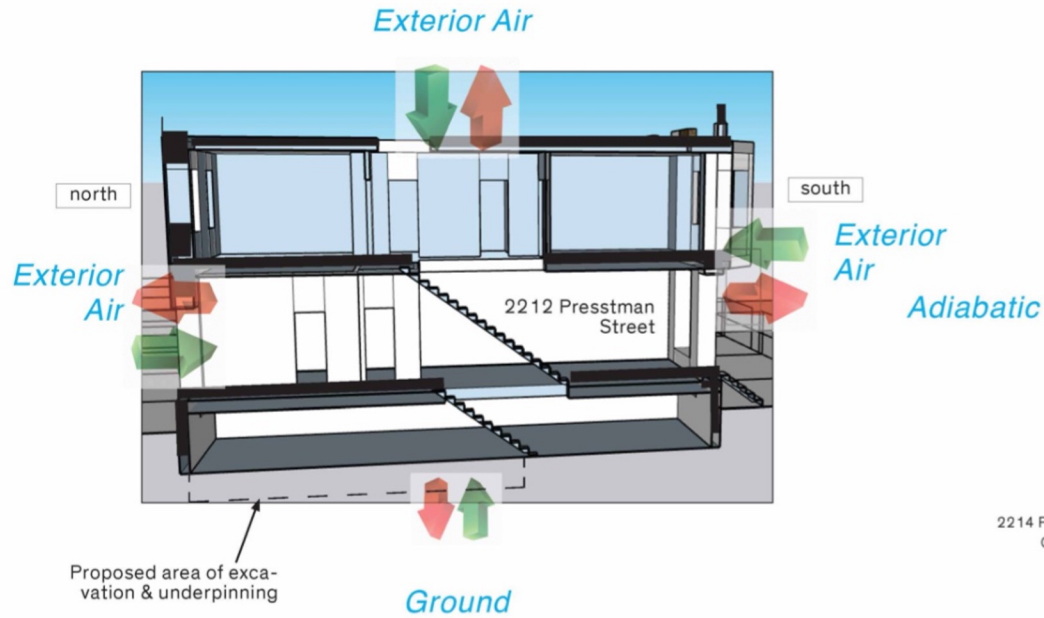
TECHNICAL CHALLENGE



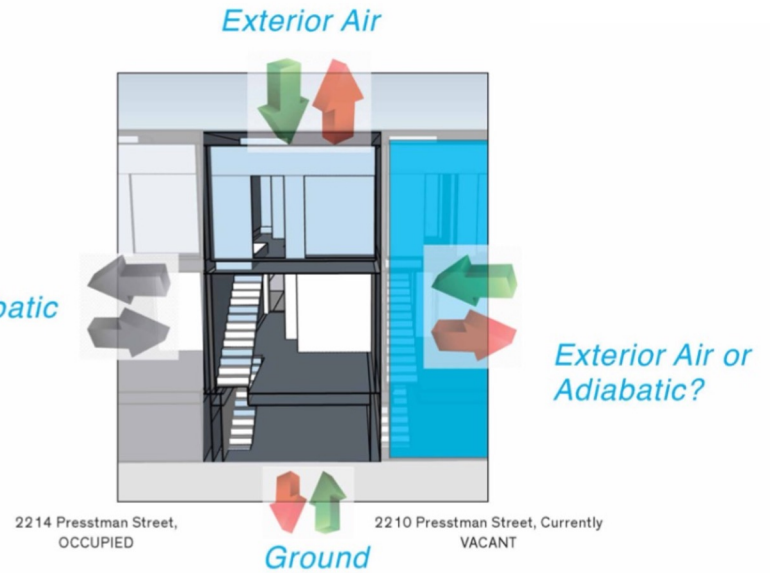
TECHNICAL CHALLENGE



TECHNICAL CHALLENGE

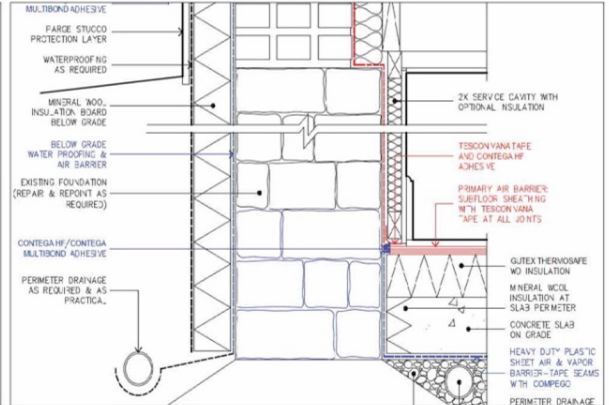
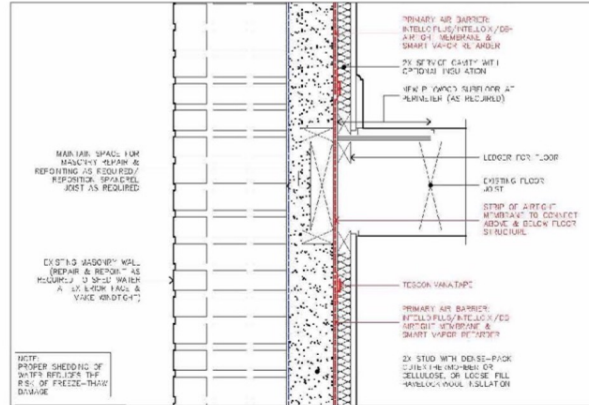
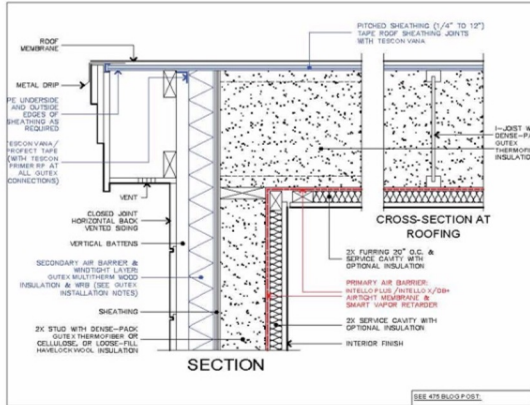


N-S Section



E-W Section

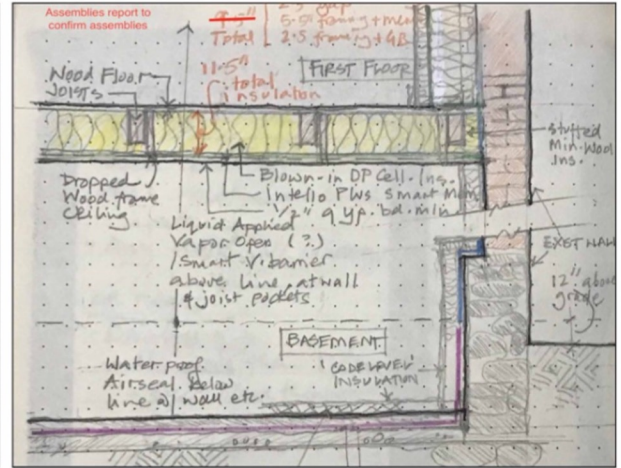
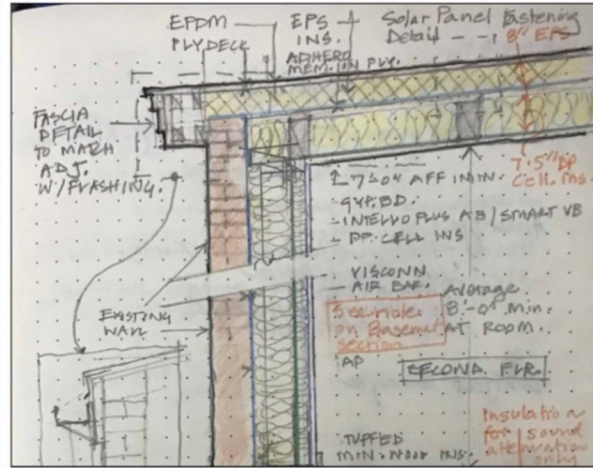
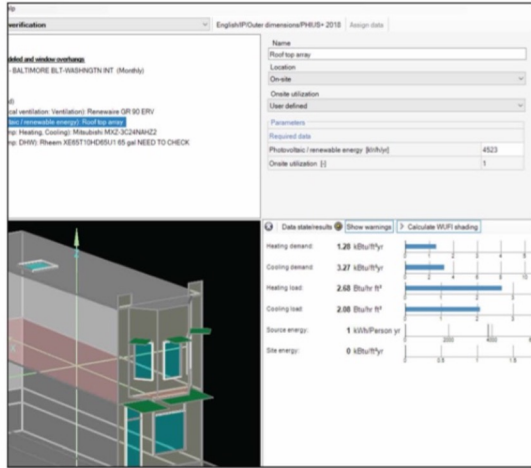
TECHNICAL CHALLENGE



Source information

475 masonry retrofit ebook

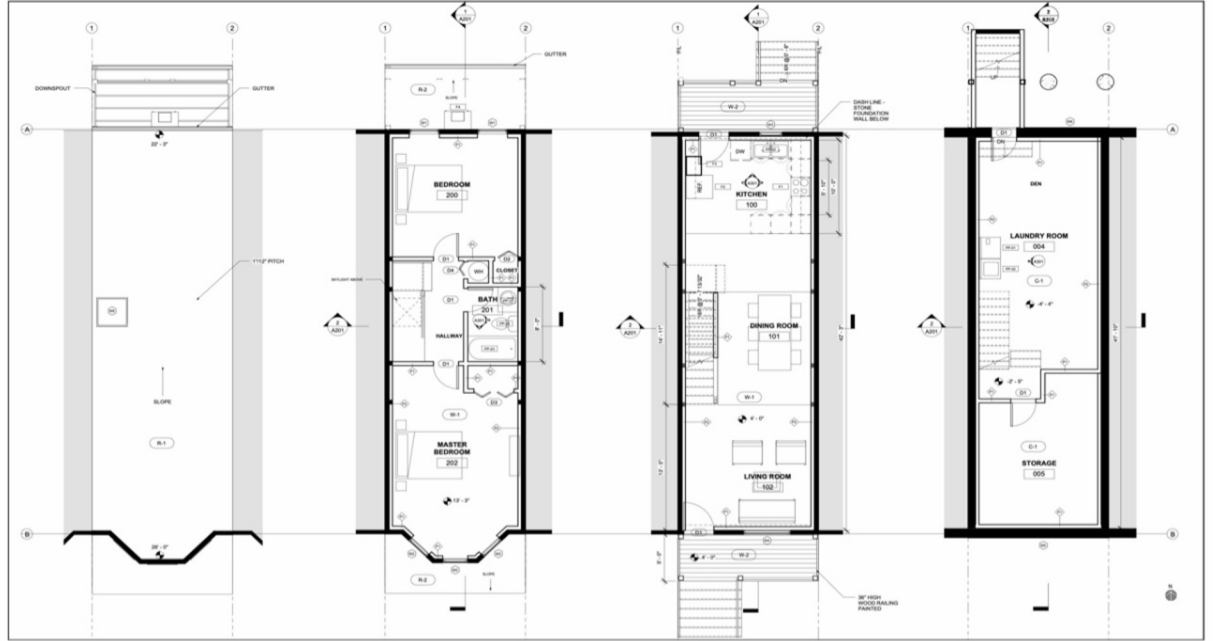
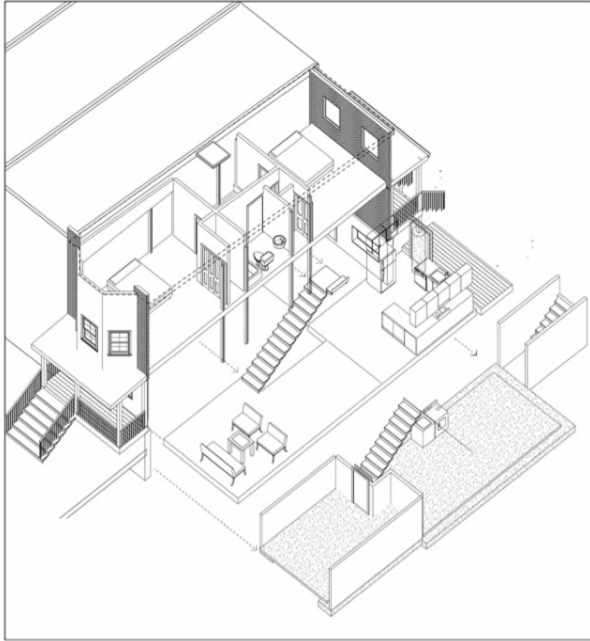
TECHNICAL CHALLENGE



WUFI & Sketches

Timmy Aziz, CPHC

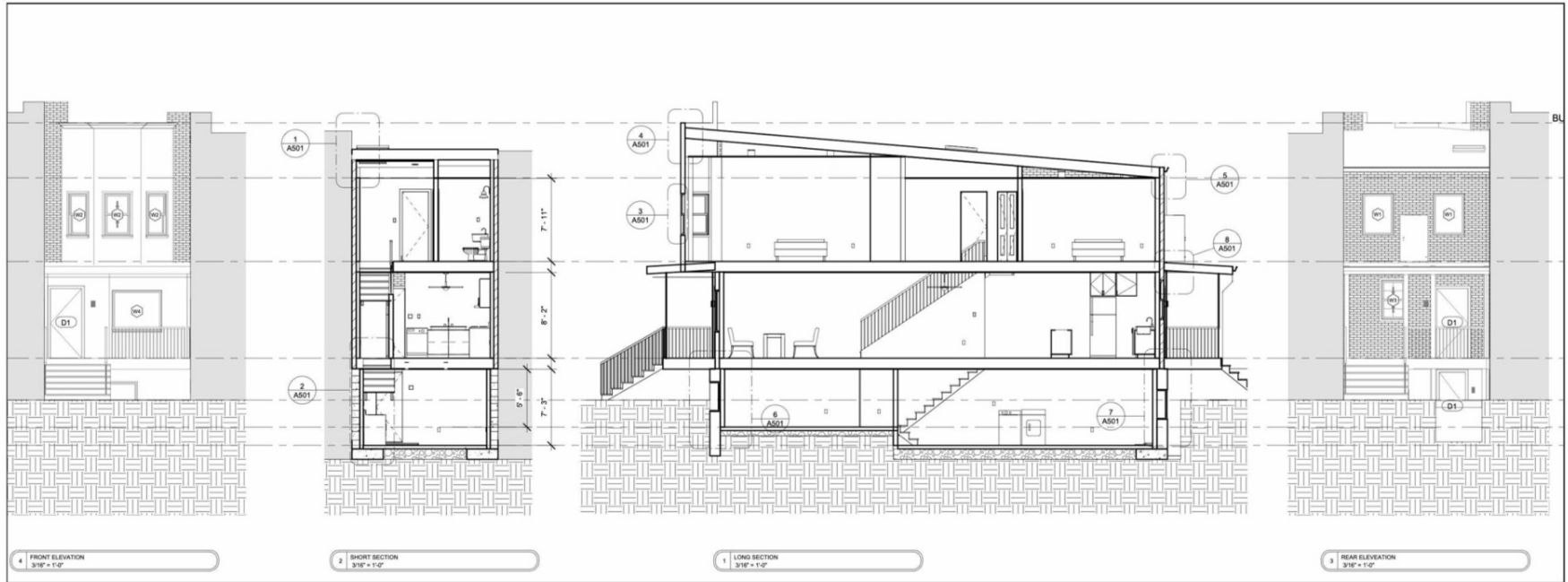
TECHNICAL CHALLENGE



Permit / Construction set in progress

Jason Neal Design Arch / FSI Eng. MEP / Skarda SE

TECHNICAL CHALLENGE



Permit / Construction set in progress

Jason Neal Design Arch / FSI Eng. MEP / Skarda SE

3. INVESTING IN THE CARVER HOUSE

Development costs

40%

Operational costs

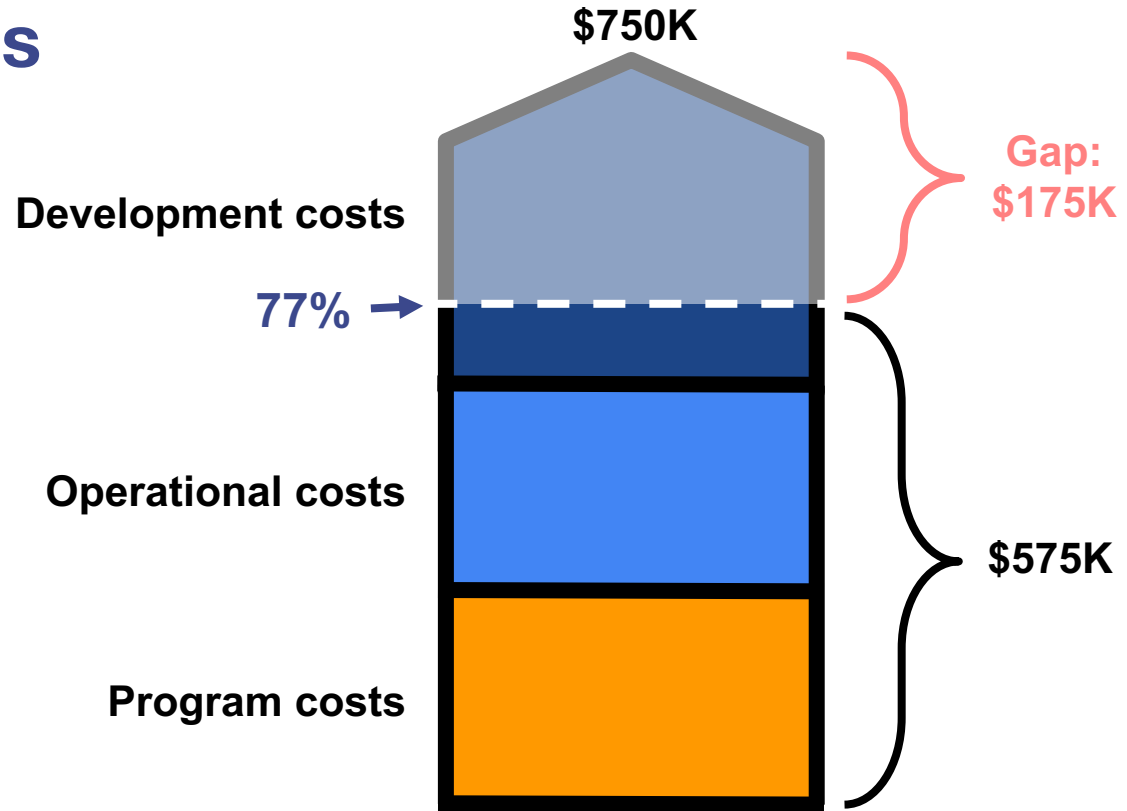
30%

Program costs

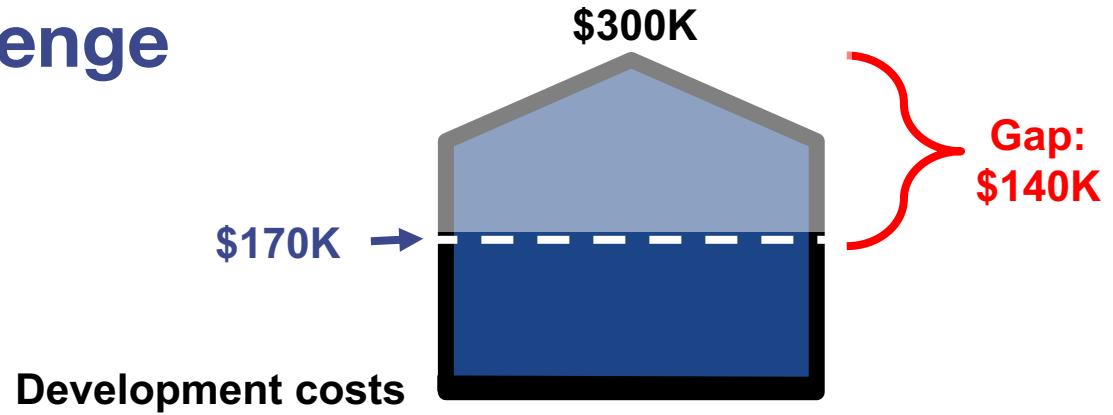
30%

Total project (18m) investment: \$750,000

Funding Status



Funding Challenge



Funding Sources

**Public
Grants**

Loans

**Private /
Foundation
Grants**

**Company
Donations**

**Individual
Contributions**

Investing Examples

	The Door Project 2021	Mock-Up Wall 2022	PH Window Install 2023
Investment	\$90K	\$51K	TBD
Impact	4 students	9 students	TBD
Investors	<ul style="list-style-type: none">• MD Dept of Ed• Requity	<ul style="list-style-type: none">• Requity• MOED• Tools4Success• in-kind professional expertise	TBD

4. IMPACT AND POSITIVE CHANGE



Strategic partnerships
MD DHCD | BCPS | Carver

IMPACT AND POSITIVE CHANGE



United Way of Central MD – Neighborhood Revitalization
\$10k grant award



Ajaughn Vidal, Carver Senior
Lukeworks, Baltimore

IMPACT AND POSITIVE CHANGE



Designing & developing sustainable building products (i.e., door, insulation)

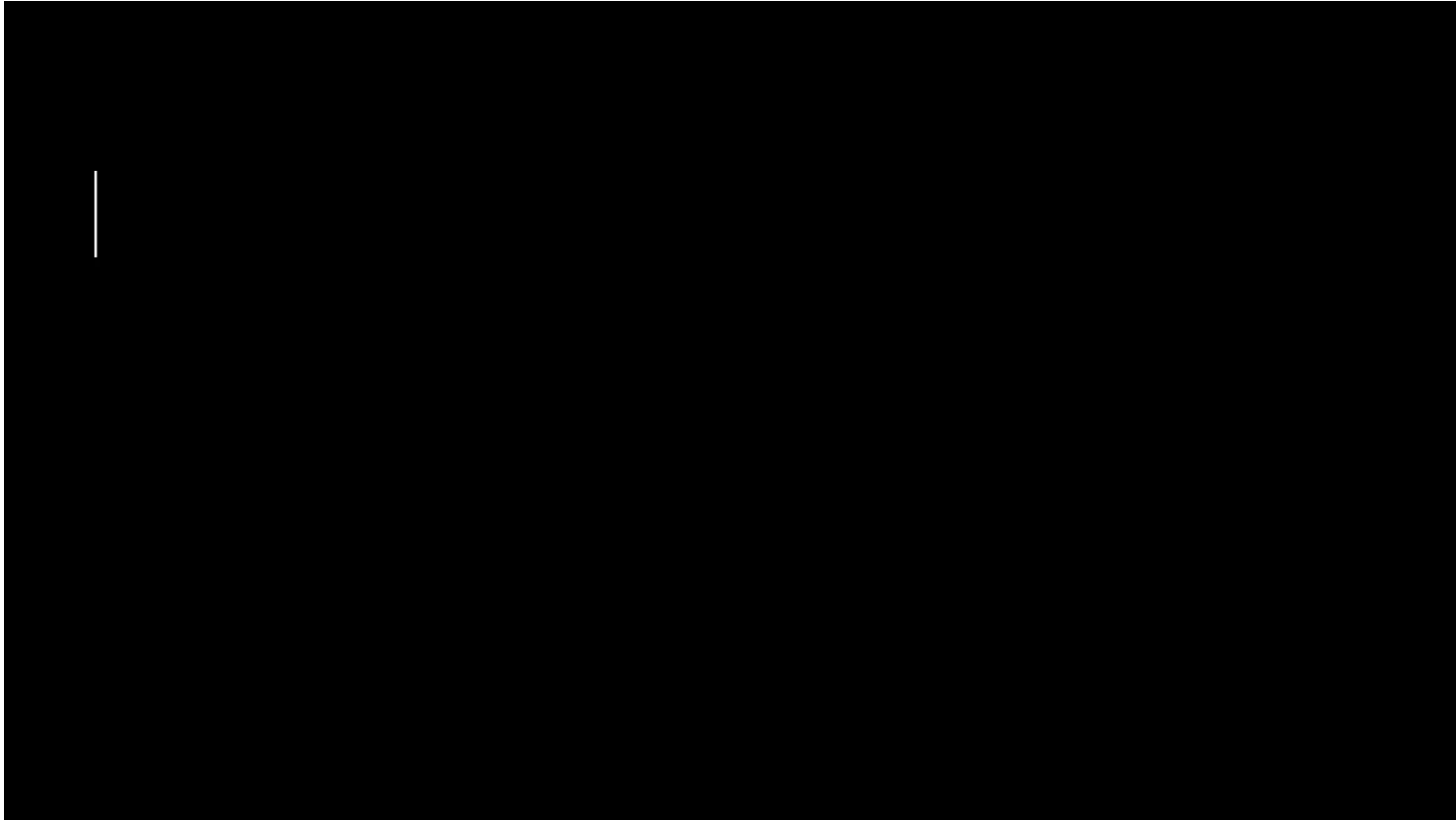


Building a Passive House Wall Assembly Mockup for use at Carver House

IMPACT AND POSITIVE CHANGE

The Door Project 2021

IMPACT AND POSITIVE CHANGE





Thank you