The City of Milwaukee
Environmental Collaboration Office
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May 2021

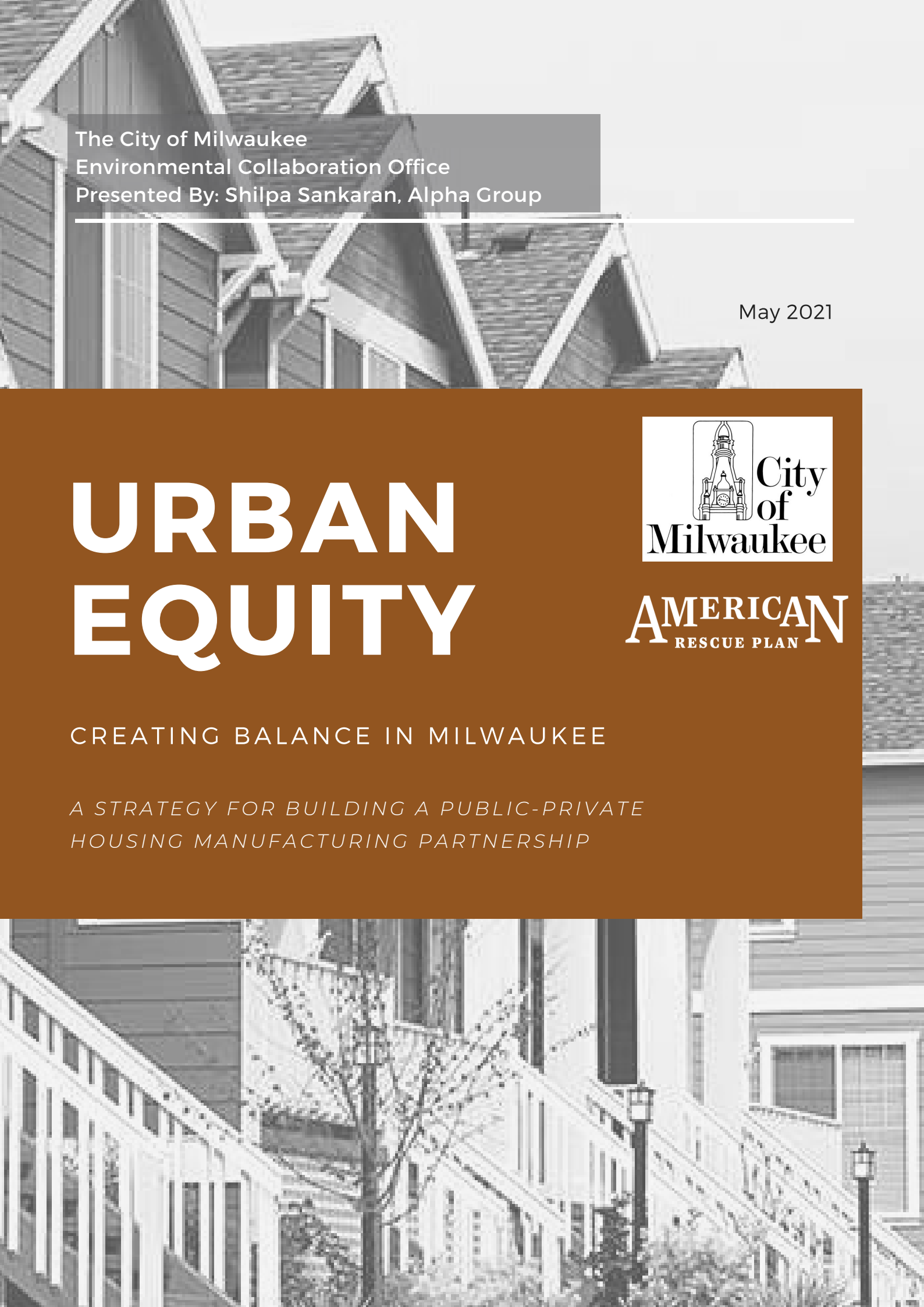
URBAN EQUITY

City of Milwaukee

AMERICAN RESCUE PLAN

CREATING BALANCE IN MILWAUKEE

A STRATEGY FOR BUILDING A PUBLIC-PRIVATE HOUSING MANUFACTURING PARTNERSHIP



URBAN EQUITY

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INTRODUCTION

Housing is a critical piece of Milwaukee's infrastructure, with impacts on our economy, environmental sustainability, human health, and quality of life. The City of Milwaukee's Environmental Collaboration Office (ECO) in collaboration with other City housing agencies aim to develop a new model for efficiently and affordably producing new net-zero energy homes in the City of Milwaukee as a piece of the forthcoming Climate and Equity Plan. This planning effort aims to address multiple public policy issues: climate change; housing affordability; human health and safety, racial equity, housing aesthetics, flood resilience, neighborhood revitalization, and job creation.

This strategy complements other governmental efforts to retrofit existing housing and city support for larger multi-family housing.
The overall philosophy is to encourage private enterprise economic growth, bolstered by government leadership and supported by a combination of private and public financial support in order to achieve economic and social goals.

Specifically, this project will develop a model for achievable infill housing in Milwaukee's neighborhoods, with housing components fabricated in a new venture in the 30th Street Industrial Corridor and efficiently assembled on infill and multifamily sites. The model should be adaptable to support future multi-generational home structures or row houses.

Too many urban families lack access to affordable, climate-ready housing, due in part to a shortage of living wage jobs in low-income neighborhoods. Milwaukee, like many metropolitan areas, has unacceptable racial disparities in both housing and income. Our city has suffered a 40% decline in manufacturing jobs since the 1970s.

INTRODUCTION
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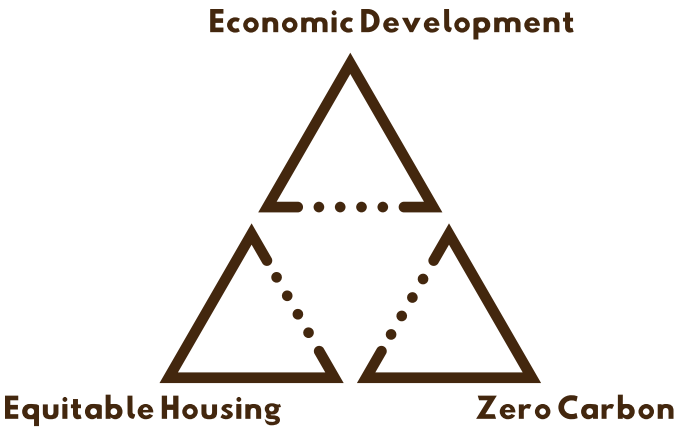
COVID-19 has accelerated housing insecurity, and city homeownership has declined by 14% in the past 15 years. Just 37% of housing units are owner-occupied (including multi-family), with the African American homeownership rate half of that of white households. With incomes too low, and the housing market costs too high, something has to change if we are to impact affordable housing.

This project seeks to change the equation for the first time, by both reducing housing costs and creating high quality, local, green manufacturing jobs. Through this project, we will design and scale production of new affordable, durable, and climate-ready modular or panelized housing, built in Milwaukee. The project will establish a new housing manufacturing facility through a public-private partnership to create year-round, healthy jobs. This new take on affordable housing will enable us to match high-need communities with a 21st century home to tackle climate change, while kick-starting economic recovery and inclusive growth.

The housing will be designed to minimize cost, increase product efficiencies, and above all, create energy efficient housing to dramatically reduce greenhouse gas emissions from the built environment

GOALS

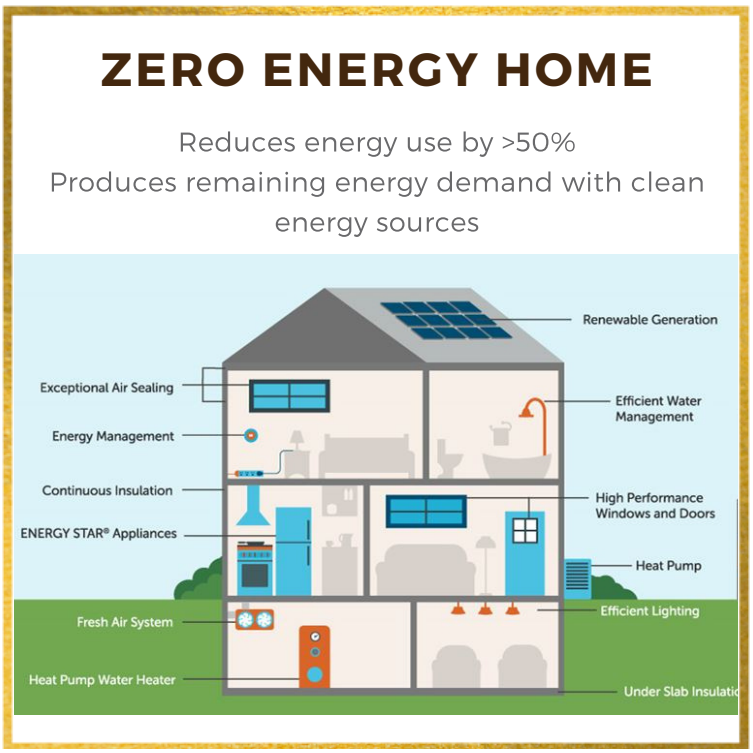
1. **Economic Development** - This model is designed not only to provide jobs, but high quality, local jobs. The intent is to create these jobs in the Century City Business Park, to offer greater connection with the local community and revitalize the neighborhood. In addition, there will be a focus on workforce development, with a plan to provide training in modern, zero energy construction methods. The jobs will be healthy jobs, in a climate-controlled environment, with proper lighting and ergonomic factory design. The factory will also be an environmentally sustainable facility that will have minimal or no noise, smell, chemical release, or other adverse effects on the surrounding neighborhood.
2. **Equitable Housing** - Off-site, zero energy buildings offer greater housing opportunities for low income families by lowering both the cost of construction and lower holding costs for developers due to faster pace of construction.



In addition, zero energy designs will decrease the energy cost burden for these families. According to the U.S. Department of Energy's (DOE) Low-Income Energy Affordability Data (LEAD) Tool the national average energy burden for low-income households is 8.6% (energy cost as a percentage of income), three times higher than for non-low-income households which is estimated at 3%. Finally, rapid deployment of affordable housing will increase the availability of equitable housing in Milwaukee relative to the current backlog in demand.

GOALS
(CONTINUED)

3. Zero Energy/Carbon- The minimum energy performance goals for this housing will be Zero Energy Ready per the Department of Energy's Zero Energy's Zero Energy Ready Homes (ZERH) program, with the goal of a Passive House Institute U.S. (PHIUS) certification on the factory and designs. This means energy usage will be significantly reduced (by >60%) so the home is ready for installation of clean energy production for the remaining energy required. If the budget, orientation, and financing is available for clean energy production (e.g., onsite solar), it will be included. The result will be net zero energy use over the course of a year. These zero energy homes will be a significant contributor to reducing overall carbon in the City of Milwaukee, and a key strategy in meeting climate action targets recommended by ECO.



CERTIFICATION TARGETS

IECC 2009	IECC 2012	ENERGY STAR v3	ENERGY STAR v3.1	ZERH	PHIUS+	PHIUS+ SourceZero
						Source Zero Renewable Energy System
					Balanced Ventilation HRV/ERV	Balanced Ventilation HRV/ERV
				SOLAR READY Depends on climate	SOLAR READY **ALWAYS**	SOLAR READY **ALWAYS**
				Eff. Comps. & H2O Distrib	Eff. Comps. & H_2O Distrib	Eff. Comps. & H_2O Distrib
				EPA Indoor airPLUS	EPA Indoor airPLUS	EPA Indoor airPLUS
				Ducts in Condit. Space	Ducts in Condit. Space	Ducts in Condit. Space
		HVAC QI w/WHV	HVAC QI w/WHV	HVAC QI w/WHV	Micro-load HVAC QI	Micro-load HVAC QI
		Water Management	Water Management	Water Management	Water Management	Water Management
		Independent Verification	Independent Verification	Independent Verification	Independent Verification	Independent Verification
IECC 2009 Enclosure	IECC 2012 Enclosure	IECC 2009 Enclosure	IECC 2012 Enclosure	IECC 2012/15 Encl./ES Win.	Ultra-Efficient Enclosure	Ultra-Efficient Enclosure
HERS **85-90**	HERS **70-80**	HERS **65-75**	HERS **55-65**	HERS **48-55**	HERS **35-45**	HERS **< 0**

INDUSTRY& DEFINITIONS

In order to meet these multi-pronged goals, the City of Milwaukee needs to pursue innovative new models and technology that fundamentally change the paradigm. Off-site construction, paired with a breakthrough public-private model, presents this opportunity.

Key benefits of off-site construction include:

1. **Quality control -** Greater consistency, 20-50 quality control checkpoints
2. **Weather-controlled environment -** Less construction waste, higher indoor air quality with kiln-dried lumber, better working conditions, greater productivity
3. **Integrated design -** Architecture, engineering, construction all working together from the start for seamless communication and more efficient design with aligned goals
4. **All trades under one roof -** Multi-functional teams more efficiently deployed during the construction process
5. **Parallel production** - Multiple components of a building can be constructed simultaneously on the various production lines
6. **Healthy working conditions** - Climate control, properly designed lighting, higher safety control, and ergonomically designed workstations
7. **High indoor air quality & EE construction** - Precision building methods and quality control allow for tighter envelope, more efficiently designed hot water runs, greater efficiency of HVAC designs

INDUSTRY& DEFINITIONS

It is important to first understand the definitions of different types of off-site construction:

Manufactured
HUD Code
Personal Property Financing
Built on a chassis
Lowest quality/efficiency
Least cost

Panelized
Local/State Code
Real Property
10% Factory-Built
Highest Cost
Can be wood or LG Steel
Most flexible design
Least control over quality and energy due to site work involved

Modular
Local/State Code
Real Property
80% Factory-Built
Cost Neutral / 100% Time Savings
Wood or Steel (higher cost)
Flexible design within constraints

The plan for this project is to utilize modular integrated with components. Compared to panelized, this offers greater cost savings, faster construction timelines, greater quality control, and more job creation.

The following types of component options will be explored:

- **SIPs** - Structural Insulated Panels (roofs, walls, timber frame)
- **Trusses** - Prefab framed roof trusses
- **MEP:** Mechanical, Electrical, & Plumbing
- **Open Panels** - Wall framing only (can be light gauge steel or wood)
- **Closed Panels** - Either finished on one side or both (includes MEP/insulation, windows, etc)

Industry Background

The off-site construction industry started and proliferated in Europe as a means to produce affordable, socialized housing. While the construction methods vary, the original intent was similar to the goals of this project and modern, U.S. prefabricated construction goals: to build faster, with standardized methods, high quality control with lower waste.

INDUSTRY& DEFINITIONS
(CONTINUED)

Over the years, several types of off-site construction methods have developed in the U.S. The most prominent in residential housing is currently Modular, while Panelized is most commonly utilized in commercial and multifamily construction with some applications in higher end single family home construction.

Historically, most of the modular and multifamily modular construction industry has been concentrated on the East Coast due to weather constraints for the industry.

On the West Coast, several new plants have been created in the past 10-15 years. Much of this growth was fueled by venture capital which propelled industry growth too fast, resulting in a crash with players such as Blu Homes and Katerra, who raised billions in capital.

In the Midwest, several plants have shut down since the housing crash and recession, leaving only a few modular options. This presents an opportunity to build a factory in Milwaukee in order to meet local and regional demand.

MARKET EXAMPLES

Currently, there are several manufacturers and projects that have been built for affordable housing and/or zero energy standards.

In addition, there is one other public-private model related to off-site construction. We can meet with this group to learn about their experiences. The Vermont Housing & Conservation Board offered incentives to replace existing, inefficient, HUD-code housing with modular, zero energy housing supplied by a privately-owned manufacturer (Vermod).

Zero Energy Off-site Examples

Zero Energy Modular
Affordable
ZETA Communities (CA)

Zero Energy Modular
Affordable
Vermod - Public/Private partnership (VT)

Zero Energy Modular
Market Rate
BrightBuilt Homes (NE)

Zero Energy Panel / Timber Frame
Market Rate
Unity Homes (MA)

While the solution (zero energy modular) is similar, the fundamental business model is not. Our solution offers housing equity and hyper-local jobs for City of Milwaukee residents. Structuring it as a public/private partnership ensures deep commitment to the ongoing success of the factory which in turn, offers long-term job growth and sufficient supply of affordable housing.

STRATEGY & APPROACH

We plan to create a public/private social enterprise to construct and assemble prefabricated zero energy housing that is affordable and healthy, while creating high-quality green jobs. This first phase will involve laying the groundwork for partnerships, pipeline and conducting R&D through an integrated design process and building proof-of-concept demonstration unit(s).

There are three key innovations that will be created as part of this initiative:

1. **Public/private partnership** with City-committed pipeline for the private factory enterprise. While there are similar models to be leveraged, a new kind of partnership will need to be designed from a legal and structural standpoint. Additionally, the project will look at City, Federal, Philanthropic and State funds to potentially be the "last dollar" investments on the factory and to provide gap financing on homes produced in the factory to qualified buyers.

2. Social enterprise model whereby higher margin projects intentionally subsidize lower margin, affordable projects. All partners will need to commit to this in order to deliver housing that is inherently cost effective and equitable for all income levels. Because of the value the City is bringing to the project, the City seeks a responsible partner that can commit to goals related to local and inclusive hiring, family-supporting wages for workers, environmental and fiscal sustainability in its operations, and a desire to grow and expand the company or its supply chain within the City. The project is open to various corporate or social enterprise structures, provided there is documented agreement on community goals of the project.

STRATEGY & APPROACH
(CONTINUED)

3. **Leading edge financing models** for housing and energy financing (e.g,. Energy Efficient Mortgage, On-bill financing, Me2 loan, etc) and utility cost at scale. The affordability cannot solely rely on reduced construction costs since off-site fabrication only offers a marginally lower product cost. The real cost reductions will come in the form of faster time-to-market (increasing revenue and decreasing land holding costs). Additionally, to support the goal of zero energy, energy production (e.g., solar) costs will need to be financed and the cost savings from energy efficiency can be considered in mortgage financing. There are exemplary models to be leveraged here as well, but a new type of model for this public-private enterprise will need to be created.

In the upcoming months, these three innovations will need to be further defined and developed to support the operational component, the fabrication facility.

MANUFACTURING / GENERAL CONTRACTOR (GC) PARTNERSHIP

In order to attract qualified partners with an aligned mission, each party in the public/private partnership will serve specific roles and offer value to the overall mission. In addition to the General Contractor/Manufacturer partnership, there will be other partnerships such as a Worforce Development partner.

Below are the roles specifically for the City and Manufacturing/GC partner:

Partner	Role / Contribution
City of Milwaukee	• Leadership • Pipeline aggregation • Incentives • Public engagement • Codes & permitting • Energy financing models • Possible assistance with land/space • Community engagement
Manufacturer / GC	• Factory financing • Additional pipeline • Manufacturing expertise • Guaranteed production of City pipeline to meet energy standards • Creation of high quality, healthy, local jobs • Commitment to Integrated Design Process on housing designs that incorporates community input • Effort to grow the factory and its supply chain in the City over time • Examine opportunity to utilize materials from the City of Milwaukee's housing deconstruction program

Currently, there are several players who may meet the qualifications outlined below, and should be on the initial outreach list.

Engaging these potential partners, along with creating industry buzz and promoting the initiative, is intended to spur additional interest and the forming and creation of new innovation teams of designers, builders, manufacturers, and product manufacturers who will submit proposals.

MANUFACTURING/ GC PARTNERSHIP

Creating the Manufacturer/GC partnership will require a process to ensure the City can attract a high quality, aligned organization that meets the specific needs of this social venture. This will involve soliciting proposals, with an initial step of engaging them through direct outreach. The specific activities are outlined in the Roadmap section.

Potential partners need to meet the following criteria:

1. Aligned mission and culture regarding:
    a. **Economic development,** employing local (within city limits) labor, at or above living wage, with healthy working conditions, training, and benefits. Factory workers should be paid a wage sufficient for them to afford the product they are building (at least the base model home.)
    b. **Affordable housing** with guaranteed pricing to meet these requirements
    c. **Zero energy** and zero energy ready standards for factory and building designs, along with architecture to meet local planning guidelines

2. Proven equity and debt financing capacity to fund the factory with 3-year ramp

3. Experienced and innovative leadership team at corporate and local level

4. Qualified pipeline that includes entitled and financed projects in the region

5. Off-site Experience designing and building single AND multifamily projects

PIPELINE

Unlike a traditional construction General Contractor, an off-site construction company carries high fixed overhead and capital costs. As such, a predictable and consistent pipeline is critical for a start-up manufacturer.

Because one of the major goals is to create high quality jobs, it is important that the factory flow is consistent and sustainable in order to maintain those jobs, income for the community, and to ensure the overall economy can continue to be supported by this industry.

The factory cannot rely on market demand alone. There will need to be two, maybe three, sources of project pipeline:

1. City of Milwaukee aggregated demand: This will consist of the following. If possible, these will be projects that require standards that can easily be met by the factory and/or projects that can be committed to the factory due to labor or energy efficiency requirements. The specifics of this type of pipeline commitment will need to be developed in the upcoming months.
    a. Housing Authority affordable housing projects. Special attention will need to be made to legal and procurement requirements if federal funding is involved.
    b. Scattered site infill homes for low income families
    c. Non-profit housing developers
    d. Affordable housing needs from surrounding cities such as Racine and Madison.

PIPELINE
(CONTINUED)

2. Manufacturer pipeline: The manufacturer will need to deploy a strong sales force to build a sales pipeline of primarily multifamily projects. Single family home sales have a high cost of sales and are not consistent enough for a flowing factory, but can help fill in some of the gaps.

In addition, the pipeline needs to be qualified to a critical mass volume before heavy investment is made in the factory infrastructure. Qualified pipeline is defined as projects that are entitled and financed. Fully qualified pipeline includes entitled, financed projects that have also been through a cost and design feasibility exercise and are ready to go under contract.

3. Development partner pipeline: In an ideal scenario, the manufacturer is or has a financial relationship with a developer. This pipeline is integrally dependent on the success of the factory, and therefore is incentivized to execute on projects in a timely manner. The City will make efforts to link the manufacturing company with local development partners, including potential graduates of the ACRE program. Associates in Commercial Real Estate (ACRE) Program is an industry-supported initiative that recruits and retains people of color for careers in commercial real estate.

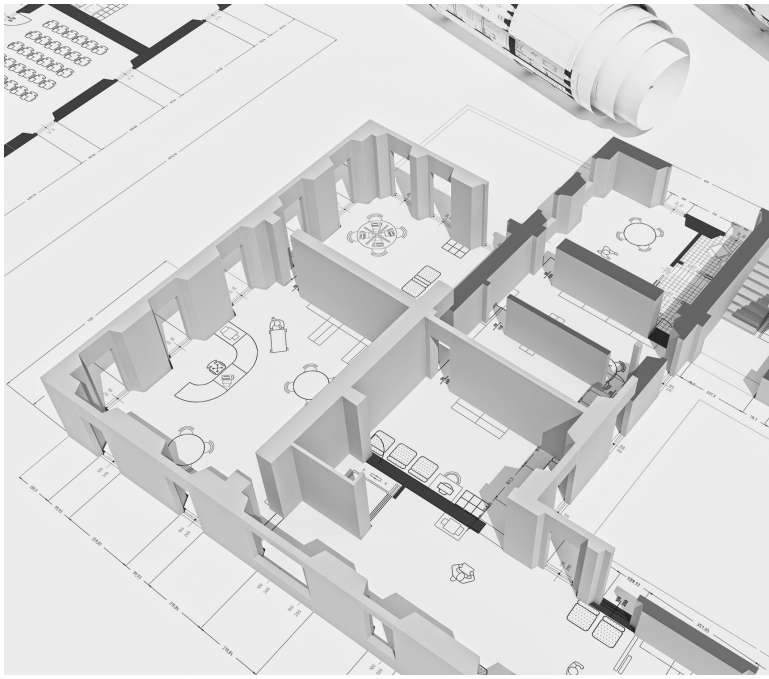
PRODUCT DEVELOPMENT

The goal of this factory is to create an innovative new model for fabrication of housing. There are factories that operate efficiently because they have a limited set of housing designs to offer. However, this factory will need to develop multifamily projects, many in urban settings, and cannot be limited to the cookie-cutter designs.

To achieve this, the factory will need to create a suite of standardized components that can be assembled in many different projects and applications. This is called “mass customization”. The “products” then can be simplified into a kit of parts, such as wall assemblies, kitchen and bath components, plumbing cores, HVAC designs, roofing assemblies, etc. These components would live in a virtual library created in a Building Information Model (BIM), in software such as Revit.

In addition, in order to meet City climate goals, there will be a minimum standard of Zero Energy Ready (ZERH) as defined by the U.S. Department of Energy (DOE), but ideally would be meeting Passive House Institute U.S. (PHIUS) standards which exceed code and offer a cost effective means to achieving zero and zero energy ready.

PHIUS is open to creating a special program for this social enterprise with a set of standards for the factory, the products, the kit of parts, the methods of construction, and the materials used. This would be a special certification, the first of its kind, that would include valuable training for designers and workers.



PRODUCT DEVELOPMENT
(CONTINUED)

Innovation in the construction industry has stagnated in general. But innovations are found among start-up companies creating new prefabricated solutions, as well as among architects seeking to design cutting edge, high performance, sustainable homes.

The culture of innovation is of high importance to the success of this project in order to fulfill the vision of modern, affordable housing in the City of Milwaukee.

Two early innovations to be considered are exclusion of full basements due to susceptibility flooding, water damage, and mold and moisture. Eliminating (or reducing to a mini basement/thermal storage) could significantly reduce cost and affordability, while eliminating associated maintenance costs and frustrations.

Helical piers are a common foundation solution for modular housing, are inexpensive to install, and will be considered for this initiative.

Another innovation for consideration is reuse of materials from deconstructed buildings. This will significantly reduce overall carbon footprint, waste, and cost if utilized appropriately. With the City's Deconstruction Ordinance, availability of these materials should be in abundance..

HELICAL PIERS

DEMONSTRATION PROJECT

The first phase in rolling out this plan is creation of a demonstration project. There are several benefits to this strategy:

1. Garner public and partner awareness and support
2. Attract developers and pipeline
3. Build credibility and a tangible product proof point
4. Learn from the process and inform subsequent phases and capital investment

The team will need to choose to design a building(s) that can demonstrate:

- Construction methodology and materials
- Construction schedule
- Energy performance
- Market appeal and design functionality
- Product supplier and construction partnerships

Ideally, the demonstration project will be under the full control of the social enterprise, ultimately for sale on the MLS. This would allow for the team to make all design and construction choices with an eye toward replicability and standardization, so all of the design effort can be leveraged. If there is an opportunity to work with a property owner to create a custom unit(s), it could be a secondary demonstration, as long as it is representative of the larger pipeline.

FUNDING

The funding strategy will involve multiple tiers of funding for both the factory/R&D (Supply side) and the housing (Demand side) and the overall Program Administration. The philosophy is to use strategies to streamline costs and attract private funding first, then deploy public funding for both the Supply and Demand sides of the program.

Some initial funding targets are below.

Supply Side

- Manufacturing partner debt and equity
- Federal Recovery Funds
- Federal Energy Department loans
- City of Milwaukee incentives for Century City land and facilities

Demand Side

- Traditional mortgage financing
- Energy Efficient Mortgages (EEM's)
- Me2 loans
- Cost reduction strategies
- Low income tax credit housing financing (TCAC)
- City affordable housing subsidies

Potential Funding Sources

- American Rescue Plan
- Bloomberg Grant
- Carbon Neutral Cities Alliance (CNCA) / USDN grants

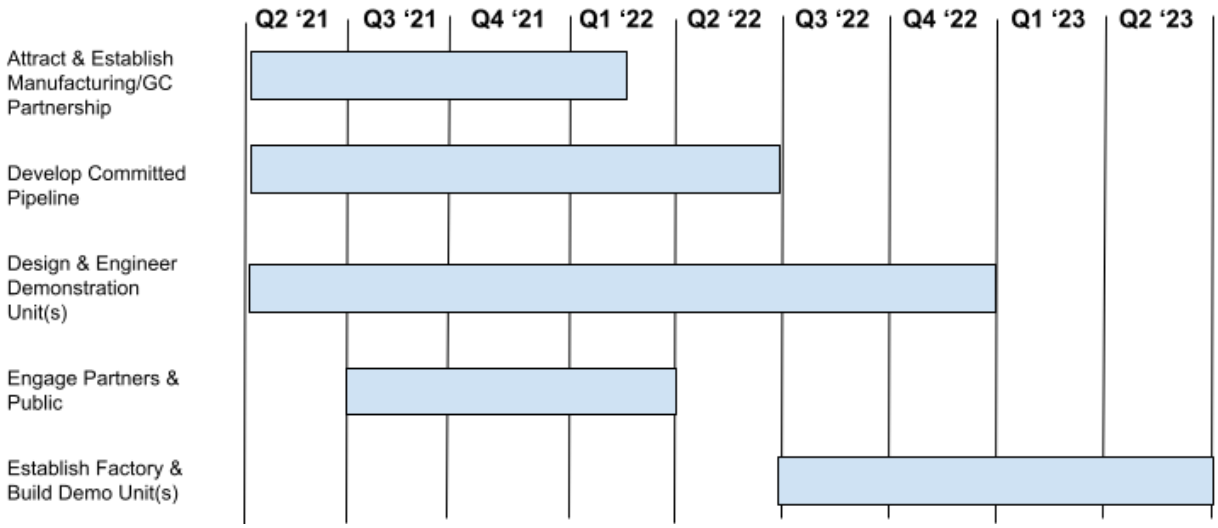
American Rescue Plan Request

The Environmental Collaboration Office (ECO) has requested a $5 million initial economic develop package including funding for:

- 1+ year Century City building rental
- Building improvements and factory equipment
- Integrated architecture, engineering, and design
- Public-Private Partnership set-up consulting
- Pipeline development, public outreach, & market research
- Workforce development supports
- Build 5 prototype housing units
- Demand-side housing subsidies

ROADMAP

The following phased approach involves starting the project in May 2021, with multiple, parallel activities, working toward launching a factory by 2023 and finishing the demonstration unit(s) by end of Q2 2023.



Supply & demand side financing activities

- Identify all potential funding targets
- Apply for grants / meet with funders
- Secure required capital

Build Collective Action Coalition Support

- Conduct exploratory meetings with potential partners and cities to learn from similar experiences
- Document lessons learned
- Identify areas for collaboration
- Formalize partnership(s) with roles and contributions

Attract & Establish Manufacturer/GC Partnership (5/1/21-2/28/22)

- Recruit potential partners through outreach and promotion
- Conduct direct outreach
- Promote industry awareness through key associations (e.g., MBI)
- Hold partner webinar

ROADMAP
(CONTINUED)

- Issue Request for Information (RFQ) to solicit interest and qualify partners (6/21)
- Issue Request for Proposal (RFP) by invitation to short-list partners (9/21)
- Select partnership(s) (12/21)
- Develop legal entity structure and solidify legal partnership with service agreements
- Conduct partnership development workshops to co-create vision and implementation plan

Develop Committed 3-Year Construction Pipeline (6/1/21-6/30/22)

- Assess gap in housing needs from current applications
- Work with Housing Authority and other local affordable housing and regional agencies subject to Federal Procurement Regulations
- Commence discussions with other regional cities to identify and map affordable housing needs to solution
- Secure financially and contractually committed 3-year pipeline of units to enable factory to operate at a minimum of break-even
- Bonus activity - attract and secure commitments from market rate developers and homeowners (pricing would subsidize very low cost housing models)
- Secure owner(s) and property(s) for Demonstration unit(s) - or purchase property and sell post construction

Design & Engineer Prototype Unit(s) (6/1/21-12/31/22)

- Engage specialty offsite construction engineering firm, local architects and energy consultants to design and engineer base model(s) for demonstration that can be modified and scaled for multiple applications
- Early deliverable: Conceptual Design/3D model to be used for stakeholder and pipeline engagement
- Final deliverables: All architectural document, energy model, shop drawings, MEP design, BIM model for building components and materials that can be used for multiple design applications

ROADMAP
(CONTINUED)

- Measure and document results: 1) Energy performance; 2) Cost; 3) Production time; 4) Homeowner satisfaction

Engage Partners & Public (10/1/21-3/31/22)

- Utilizing small workshops, engage key stakeholders in the following categories (in sequential order)
  - 1) Industry partners and enablers
  - 2) developers, city housing agencies, and builders
  - 3) potential residents
- Garner media and social media attention around demonstration unit to grow pipeline

Establish Factory and Build Prototype Unit(s) (7/1/22-4/31/23)

- Led by manufacturing/GC partner(s)
- Find assembly warehouse space, equipment, labor
- Procure materials, produce, deliver, and install demonstration unit(s)
- Document and establish processes and methodology based on lessons learned (note that if home is sold, some labor and materials costs will be recuperated)
- Note: Go-to-market could be with Modular, and over time additional (more automated) production lines can be established to build panels for new construction, multifamily, and retrofits.

ROADMAP
(CONTINUED)

Outcomes

Short-term outcomes focus on demonstrating the idea's feasibility so that it is not a one-off project, but rather something with long-term impact on Milwaukee residents:

- Securing partnership with a financially viable manufacturer/GC to own and operate the factory.
- Committing a large enough public and affordable housing pipeline with financing.
- Creating a prefabricated housing system that is at least 50% more efficient than code-built housing (per DOE ZERH standards) AND that is the same or less cost-per-square-foot to comparable code-built housing.

Long-term outcomes focus on creating equity by providing income opportunities (jobs) AND opportunities to rent and own high quality, healthy housing that is affordable to own and operate by low-income Milwaukeeans. We will monitor the following annual metrics over the next five years:

- Increased supply of affordable housing with a maximum factory potential capacity of 800 units/year (offered through the Housing Authority, tax credit housing and low cost direct sales).
- > 90% decrease in annual resident utility bills.
- >20% increase in housing ownership opportunities for residents.
- 50 new jobs annually (created by the entire delivery supply chain).
- % GHG emissions reductions from the housing sector.
- Positive resident housing satisfaction ratings (comfort, livability, function).

ROADMAP
(CONTINUED)

Critical Success Factors

- **Commitment to 5-year ramp -** All parties acknowledge that it may take 2-3 years to break even and that profitability will be minimal for the first 5 years. This means sufficient capital must be secured for this rate of cash flow and investor goals need to be aligned
- **Sufficient Financing -** Both debt and equity funding are available to build the factory, conduct R&D (e.g., demonstration project) and provide cash until operations are at break even
- **Financially Committed Partners -** All partners need to have some financial commitment to the success of this social enterprise, such that all parties benefit from ensuring pipeline is secured and projects are built in early years to gain financial stability.Ideally, additional real estate development partners have some investment risk in the factory.
- **City Commitment, Support, Resources -** The City of Milwaukee is committed at all levels across multiple departments (e.g., HousingAuthority , ECO, Economic Development)
- **Entrepreneurial Mindset -** Since this is a public-private partnership, it cannot operate within the confines of a typical government and public-led process. All partners need to lead with creativity, innovation, and an eye toward creating a new model that can ultimately be financially sustainable.
- **Product Development Mindset -** With traditional developments and construction, each project is custom-designed. With a manufacturing environment, the goal is to create “mass customization”, with the development of a suite of standardized product components that can be used in multiple applications for customization.
- **Willingness to Adapt -** While there is a solid plan going into this program, the team will need to have the attitude and ability to adapt to changes in market needs, technology, competition, and to learn from lessons along the way.
- **Collaboration -** Given the ambitious scale and differentiation of this program, collaboration with other organizations and the forces of the national movement will bolster and strengthen the program.