Good Design in Affordable Housing

A framework to empower developers and improve design in affordable housing

January 2018
Table of Contents

3  Executive Summary
6  Introduction
9  Findings
11 A Framework to Empower Developers
12  Mission
14  Design
15  Impact
16 The Affordable Housing Design Leadership Institute
18 Curriculum Modules
20 Conclusion
21 Appendix
21 A. Methodology
23 B. Design Opportunities
25 Bibliography
26 Image Credits

Marion West (cover). Developed by the Low Income Housing Institute (LIHI) in Seattle, Washington, the Marion West project includes affordable housing, a food bank, and barista job training. LIHI brought the project to the Affordable Housing Design Leadership Institute in 2012.

Outdoor play area behind CAMBA Gardens (back cover). After attending the Institute in 2010, David Rowe of CAMBA Housing Ventures worked to incorporate intentional and playful landscaping to the supportive housing project.
Executive Summary

Driven by the growing recognition that the design of affordable housing projects can help developers respond to complex challenges, control costs, and improve resident outcomes, Enterprise Community Partners has invested in a variety of programs and resources to increase the design leadership of community developers. These include research, toolkits, case studies, and an annual Affordable Housing Design Leadership Institute: A three day in-person workshop, where developers and designers come together to charrette real projects in the pre-development phase. In advance of the 2017 Institute, Enterprise consulted with MASS Design Group to explore how to scale its impacts.

Project Description

The study aimed to identify opportunities to empower developers to be leaders in the design of affordable housing projects. In order to assess current barriers and develop the right response, MASS reviewed existing literature and conducted nearly 50 interviews with experts in the field of affordable housing, including developers, architects, and a mix of funder and city representatives, residents, partners, and consultants.

The team aimed to answer three questions:

- What is good design?
- What are the challenges that developers face in implementing well-designed affordable housing, and where are the key moments for achieving this within the typical design timeline?
- How can developers be equipped to be leaders in the design of affordable housing projects?

Collectively, this investigation would inform the creation of a curriculum and tools that developers could use to pursue mission-driven affordable housing projects. The curriculum and tools seek to empower developers to take ownership over their design processes, with the ultimate goal of improving the design of affordable housing projects and increasing positive impact for residents and communities.

Findings

The literature survey and interviews generated the following findings:

1. **Both developers and designers believe that “good design” is design that meets resident needs and achieves a project’s stated goals.** However, because of the challenges of navigating the affordable housing development system in the U.S., most developers end up defining “success” separately from resident outcomes: Success is merely completing a project—getting it funded and built—and ultimately falls short of the standard for good design.
2. Although developers are leading projects, they do not necessarily feel like they have control over the final design. They feel as though they are merely balancing and navigating the competing preferences of their multitude of stakeholders. And, because of the lack of a cohesive definition of “good design” across all stakeholders, the project’s design is frequently stripped to its “bare bones” or “lowest common denominator.”

3. Due to the many variables and challenges at play in the affordable housing eco-system, there are no universal moments during the development timeline that can be leveraged to achieve design excellence for all projects. Instead, project team members need to be open to opportunities as they present themselves throughout the entire process.

The findings show that—within today’s extremely constrained political, social, and financial environment—developers need to be empowered to communicate and negotiate with the entire spectrum of stakeholders throughout the full duration of the project process. In addition, because each project, context, community, and process is different, a single prescriptive roadmap would not guarantee “good design.” Instead, developers need a flexible, adaptive, and iterative framework.

A Framework to Empower Developers and Improve Design
To help developers best leverage design to achieve positive impact, we created a framework built around the foundational ideas of Mission, Design, and Impact:

• **Mission**: A clearly articulated project mission, based in a deep understanding of context and stakeholders, can help development teams articulate visionary goals and navigate the challenging development process.

• **Design**: Developers and designers need to be able to align design opportunities with the achievement of mission. We identified 9 Design Opportunities that can be leveraged: Site, massing, landscape, program, circulation, units, systems, materials, and culture.

• **Impact**: To prove the power of thoughtful design and improve future projects, developers must measure and share the outcomes of their design decisions.

Testing the Framework
The framework was packaged into a developer-focused curriculum for the 2017 Institute, including 5 webinars, a 3-day in-person workshop, and a collection of supporting worksheets and guides. Seven development teams from across the country—from rural to urban neighborhoods, working on a scale of seven units to hundreds of units—piloted the mission-driven framework and curriculum with a project in their current pipeline. Supported by nine design resource team members and eleven Enterprise Rose Architectural Fellows (architectural designers embedded in development organizations), the development teams identified barriers to achieving good design that they frequently face and used the tools and discussions to help find innovative ways to overcome these challenges.
Participants expressed that the framework and guided steps ultimately helped them to better understand and communicate their project goals. One developer explained,

“I knew what I had in my head that I wanted to achieve for residents, but I didn’t have the structure to communicate it effectively. Now I have a map. I can clearly explain to my architect what I’m thinking through the project mission. I’ll use the tool on every project.”

The framework and curriculum influenced the way seven developers approach the design of their projects and the impact that it will have on their residents and community members.

**Conclusion**

The project used a research process to define “good design,” identify key barriers to its implementation in affordable housing, and create tools to help a developer respond. The framework and accompanying curriculum are intended to be applicable to a variety of different contexts and communities, help development teams navigate challenges that arise, and create a strong linkage between design and user-oriented impacts. Initial feedback shows the framework and curriculum have successfully empowered developers to own their design processes and demand contextually appropriate and mission-driven design. Equipped with these tools, developers will be ready to advocate for design decisions with all stakeholders along the entire development process, increasing the positive impact of their work.
Introduction

Affordable Housing in America
Housing is a human right. But still, millions of Americans are unable to access affordable, healthy, and dignified housing for their families. In recent years, evidence has grown that the buildings people live in have an impact on their health, well-being, economic prosperity, community and neighborhood cohesion, and much, much more. For the field of affordable housing, this presents a unique challenge: How can developers increase the positive impact of their housing projects in the face of an extremely constrained political, social, and financial environment?

Design in Affordable Housing
With emerging evidence that design can play an important role in helping developers respond to complex challenges, control costs, and improve resident outcomes, Enterprise Community Partners has invested in a variety of programs and resources to support development organizations and build their capacity to produce thoughtful and well-designed projects. In addition to research, toolkits, and case studies, Enterprise hosts an annual Affordable Housing Design Leadership Institute: A three day in-person workshop, where developers and designers come together to charrette real projects in the pre-development phase. The Institute aims to facilitate the integration of design best practices into projects and influence improved design for a developer's entire portfolio. In advance of the 2017 Institute, Enterprise consulted with MASS Design Group to explore how to scale its impacts.

Project Description
The study sought to identify needs and opportunities to equip developers to be leaders in the design of affordable housing projects. In order to assess current barriers and develop the right response, MASS reviewed existing literature and conducted nearly 50 interviews with experts in the field of affordable housing, including developers, architects, and a mix of funder and city representatives, residents, partners, and consultants.

The team aimed to answer three questions:
• What is good design?
• What are the challenges that developers face in implementing well-designed affordable housing, and where are the key moments for achieving this within the typical design timeline?
• How can developers be equipped to be leaders in the design of affordable housing projects?

Collectively, this investigation would inform the creation of tools that developers could use to pursue mission-driven affordable housing projects. The tools aim to empower developers to take ownership over their design processes and are introduced through a curriculum designed for the 2017 Institute. Together, the
tools and curriculum seek to equip developers to improve the design of their housing portfolio and increase the positive impact of their projects for residents and communities.

The initial scoping interviews confirmed a difficult landscape of affordable housing development in America. With complex application processes, a diversity of competing stakeholder positions, NIMBYism (Not In My Back Yard), challenging community contexts, design fatigue, and a small margin for error—among a list of other challenges—all of the stakeholders primarily pointed to one challenge over and over again: Funding.

Within this difficult context, the team began with a hypothesis that we could identify key moments in the project timeline to help designers and developers coordinate and incorporate design excellence. The study aimed to catalog a “typical” project timeline in order to understand where those moments in the process lie.

A Framework to Empower Developers and Improve Design

The review of literature and interviews demonstrated that, although project processes have many similarities, each project is inexorably driven by a number of different factors (project typology, size, partnership, community perception, political climate, site challenges, funding cycles and availability, etc.), and thus it would be impossible to determine a universal, consistent timeline within the same organization, let alone across many projects and developers. Instead of looking for key moments of opportunity to bring developers and designers together, developers need to be equipped to navigate the full range of stakeholders that influence the final design, and lead the design process throughout an entire project.

In response to these findings, the team developed a flexible framework—built around a project’s Mission, Design, and Impact—to help developers define the mission of the project, identify and align design opportunities to achieve project goals, and prepare to assess the impact of their decisions. The framework forms the basis for a curriculum and tools aimed at improving the design acumen of leaders in affordable housing development. Armed with these tools, we hope developers will feel empowered to pursue mission-driven, rather than constraint-driven projects.

The following report describes the research findings and framework, and shows how each culminated in the creation of the curriculum and tools.
CAMBA Gardens lobby. Respondents agreed that “good design” meant design that meets resident needs and achieves a project’s stated goals.

**Development timeline.** The original hypothesis of this research (right, top) focused on identifying key moments to improve communication between the developer and the designer. This hypothesis was rejected because of the difficulty to identify a “typical” project timeline. Instead, we found it was important for all stakeholders to be in sync throughout the project timeline (right, bottom).
Findings

The literature survey and interviews generated the following findings:

1. **Both developers and designers believe that “good design” is design that meets resident needs and achieves a project's stated goals.** However, because of the challenges of navigating the affordable housing development system in the U.S., most developers end up defining “success” separately from resident outcomes: Success is merely completing a project—getting it funded and built—and ultimately falls short of the standard for good design.
   - **There is a low threshold for success.** While discussing value engineering and cost cutting strategies, one developer lamented over the challenge of funding and completing a project, saying he couldn't imagine “how bad” the project would have to be before they would have stopped the development process from proceeding.

2. **Although developers are leading projects, they do not necessarily feel like they have control over the final design: They feel as though they are merely balancing and navigating the competing preferences of their multitude of stakeholders.** And, because of the lack of a cohesive definition of “good design” across all stakeholders, the project’s design is frequently stripped to its “bare bones” or “lowest common denominator.”
   - **The community controls the design.** One developer emphasized the power of the community to control the design, saying, “We find that each stakeholder has a different definition of good design” that must be considered during the process and describing numerous instances where neighboring businesses or residents challenged design decisions.
   - **Funders influence design.** Another developer articulated the challenge of communicating with their funder the value of considering lifecycle (long-term) costs instead of initial (short-term) costs. The developer needed to argue and prove how a higher quality material would ultimately be the better use of finances for a project, before the funder would agree to the allocation.
   - **Developers need to be able to speak the language of each of the different stakeholders that influence the project.** Respondents consistently agreed that if a developer does not have clear goals or is unable to communicate them, the design team will struggle to create a building that serves their needs. Beyond the design team, the developer must be able to articulate these goals, understand their design implications, and advocate on behalf of these decisions with their varied stakeholders.
Due to the many variables and challenges at play in the affordable housing eco-system, there are no universal moments during the development timeline that can be leveraged to achieve design excellence for all projects. Instead, project team members need to be open to opportunities as they present themselves throughout the entire process.

- *Project timelines are both similar, yet different.* Mike Lozano, a Senior Project Manager at Trinity Financial, described the development process saying, “There’s never a typical process, because every project and every community is so different, but there are definitely similarities in them all.”

- *There is no time or money to learn from the past.* It is important to create a feedback loop to capture lessons learned in each project. Developers recognize the value and would like this to happen, but perceive the process as too challenging with limited time and funding for each project.

**Takeaways**

The findings show that—within today’s extremely constrained political, social, and financial environment—developers need to be empowered to communicate and negotiate with the entire spectrum of stakeholders throughout the full duration of the project process. And, because each project, context, community, and process is different, a single prescriptive roadmap would not guarantee “good design.” Instead, developers need a flexible, adaptive, and iterative framework.

James Madden, a Senior Program Director at Enterprise Community Partners and a former developer, summarized the need for clear communication saying, “Big dreaming happens upfront for the developer—the rest of the process is hanging on to it. The developer really is just playing the role of compromise: Trying to balance a lot of different interests.”
A Framework To Empower Developers

The findings listed above were synthesized into a guiding framework, helping developers to connect the Mission, Design, and Impact of their projects. This framework—accompanied by a developer-focused curriculum—was intended to equip developers to ask for, talk about, and defend good design with a variety of stakeholders throughout an entire project process.

- **Mission:** A clearly articulated project mission, based in a deep understanding of context and stakeholders, can help development teams articulate visionary goals and navigate the challenging development process.

- **Design:** Developers and designers need to be able to align design opportunities with the achievement of mission. We identified 9 Design Opportunities that can be leveraged: Site, massing, landscape, program, circulation, units, systems, materials, and culture.

- **Impact:** To prove the power of thoughtful design and improve future projects, developers must measure and share the outcomes of their design decisions.

---

**Framework.** The Mission, Design, and Impact framework is designed to help development teams define and communicate a clear and visionary mission for a project, identify and align design opportunities to achieve project goals, and understand the impacts of their design decisions on current and future projects.
A mission should move developers beyond a simple statement of number of units at specific income levels. What are the core, resident outcomes for the project? What impacts are critical to success for this community?

**Mission**

Discussions with developers and designers revealed the importance of working toward a clear, agreed upon mission. A strong project mission is one that is informed by a deep understanding of context and stakeholders, establishing the need for the project and its intended outcome. Having a shared mission helps ensure that different team members are working toward the same goal. It also guides decision making throughout the project process. When challenges arise, as they always do, the team can consider the best way to proceed while still being aligned with their priorities.

A mission should move developers beyond a simple statement of number of units at specific income levels. What are the core, resident outcomes for the project? What impacts are critical to success for this community? When these goals are left unstated, they are left un-prioritized—and frequently become one of the first elements to be “value engineered.”

Being able to communicate a clear mission enables the design team to best help developers reach that mission. Developer Jeff Beams said, “Having a design team that is committed to a set of priorities for the housing and has the versatility to bring a bunch of different tools to that, to contribute to that conversation is important.” If a developer does not have clear goals, or is unable to communicate them, the design team will struggle to apply the correct design tools to create a building that serves their needs.

It is important to emphasize the process, rather than the outcomes, of mission-setting. Daniel Simons, a Principal at David Baker Architects, explained the importance of an iterative process:

“Goal setting is essential. From my point of view, it’s really important that whatever comes out of that [process] is a living document. It’s not like you decided what the goals are, and you’re done. The [goals] are going to evolve during the course of the project and that’s okay—that’s a good thing, not a bad thing. You want them to evolve as you learn more, as you figure out things that are specific to the project, or as opportunities arise.”

Developers might begin the project process with specific goals, but by engaging with stakeholders and developing a deeper understanding of context, these goals may evolve.

To create the project mission, developers must first understand the context in which they are working, the stakeholders that are involved, and the interests of those different stakeholders. In this context, stakeholders refers to anyone invested in the project, engaged in the process, or affected by its outcomes. Examples of stakeholders who can impact a project’s design range from the city funder to the neighborhood association to the management company. Most developers are aware of these conditions and players, but are juggling so many project demands that it can be difficult to consciously think about the cultural, political, and environmental context in which a project is being developed. The framework
Example Webinar Slide: CAMBA Gardens stakeholder map. The map above represents the individuals and groups interviewed as part of the research process. It also served to communicate the variety of different stakeholders that respondents felt ultimately controlled the design process. Rather than a curriculum focused solely on the relationship between developer and designer, the curriculum aimed to increase communication among the full range of stakeholders.

helps developers organize and prioritize this exercise, encouraging them to be actively aware of contextual conditions, community needs, and stakeholder perspectives. Additionally, if the developer is able to align the project goals with the stakeholders’ goals, they will be able to more easily convince them of the value of the project. This study resulted in a series of worksheets to help walk developers through the process of creating a project mission based on an understanding of context and stakeholders.
Design
Rather than a process where developers were totally dependent on their designer, the framework aims to help developers take control over the design process and empower designers to do what they do best. When the design team understands the development project’s goals, they can employ design tools at the start of a project to help achieve the project mission. Conversely, when the development team understands how design can be leveraged to achieve their project mission, they can then value and communicate the impact of design decisions to other stakeholders.

In talking with developers, our team found that making sure developers first understand the potential for design to elevate their project and achieve identified goals is key. Hilary Noll worked for three years as an Enterprise Rose Architectural Fellow (an architectural designer embedded in a development organization) at First Community Housing, an affordable housing development firm in San Francisco. When asked what should be included in the curriculum she said, “If developers can understand that the architect is going to help them achieve their bottom line mission and that it’s not just decoration—they could actually have an advanced outcome for their residents. Whether they are interested in health, economic development, developing job skills, or stabilizing families—knowing that they can ask their architect and have faith that an architect wants to be asked this question. That would be the lesson I would pick.”

To help developers connect their project mission with design elements and opportunities, our team identified 9 Design Opportunities available in any affordable housing project: Site, massing, landscape, program, circulation, units, systems, materials, and culture. Explaining and discussing these opportunities in detail not only highlighted the value of design to work toward project goals, but also equipped developers with the nuanced understanding and vocabulary necessary to argue for high quality design in their own projects. Being able to understand and articulate the value of design enables developers to convince other stakeholders of its value.

Having a clear project mission and an understanding of how design can achieve this mission informs decision making as the design goes through iterations and faces inevitable funding challenges. Matthew Littell, a Principal at Utile, Inc. explains a proactive approach to allocating resources in design, saying, “More and more I’m also discovering that there are little things that are really important—like paying a lot of attention to common areas—just investing another level of design so that they’re not completely generic is the best bang for your buck.” As a project goes through the value engineering process, understanding what is most important to meeting project goals and where additional attention to the design will create the greatest impact for the value will help the team create affordable solutions that don’t threaten the project mission.
Impact
When “good design” is defined as that which meets resident needs and achieves a project’s stated goals, it is important for a developer to be able to prove the value of their design decisions and evaluate if they have indeed achieved “good design.” An impact assessment or evaluation can benefit developers in two ways. Many resources and literature already exist that provide data on specific design elements and their positive or negative impacts on the residents or surrounding community. If a developer understands this data, they can play an important role in advocating for the value of specific design decisions, such as defending the inclusion of a central day-lit staircase in a project by explaining the positive health impacts for residents. Aside from existing impact data, developers can also track the impact of their own buildings to prove the value of previous decisions, as well as inform future decisions.

When approaching the topic of impact measurement, developers should understand the ways that design works to achieve desired outcomes. Our team organized different types of impact into three categories: Design that acts, encourages, or inspires. When design acts, it works to directly achieve an outcome. When it encourages, it facilitates human behavior to achieve an outcome. And when it inspires, it catalyzes action based on inspiration.

The framework helps developers consider the assumptions they are making regarding how the building will be used and articulate both the short- and long-term outcomes they hope to see.
Developers recognized how challenging it can be to articulate and communicate what they previously assumed the entire team understood.

The Affordable Housing Design Leadership Institute

Testing the Framework at the 2017 Institute

The framework—built around the integral concepts of Mission, Design, and Impact—was developed into a curriculum for the 2017 Institute. The curriculum included 5 webinars, a 3-day in-person workshop, and a collection of supporting homework worksheets and guides. Seven development teams from across the country—from rural to urban contexts, working on the scale of seven units to hundreds of units—piloted the mission-driven framework. Supported by nine design resource team members, eleven Enterprise Rose Architectural Fellows, and a mix of other resources, the development teams were led through a process of identifying barriers that they were frequently facing and used the tools and discussions to help find innovative ways to overcome these challenges. Together, the framework and curriculum challenged each developer’s ability to understand and articulate their project context, link a clear and visionary mission to design opportunities, and articulate the potential positive, user-driven impacts of their projects.

As teams worked to do this with the accompanying worksheets, they recognized how challenging it can be to articulate and communicate what they previously assumed the entire team understood. Some teams struggled with this request, recognizing that perhaps they didn’t understand their context and stakeholders as well as they thought they did. Over the course of the course modules, teams progressed through the framework and grew in their recognition of the value of each step, ultimately expressing how helpful the framework was in assisting them to better understand and communicate their project goals.

Charrette. Developers and design resource team members review project plans, sections, and photos during a previous year’s Institute.
“Before the Institute, I would say to my designer, ‘I want it to have a community feel.’ Now I think, what does that even mean? You say the words, but you don’t know what they mean. Now I see that [good design] is about outcomes for residents, if you are designing with the end user in mind.”

*Developer at 2017 Institute*

One developer explained,

“I knew what I had in my head that I wanted to achieve for residents, but I didn’t have the structure to communicate it effectively. Now I have a map. I can clearly explain to my architect what I’m thinking through the project mission. I’ll use the tool on every project.”

Another developer reiterated this idea stating,

“Before the Institute I would say to my designer, ‘I want it to have a community feel.’ Now I think, what does that even mean? You say the words, but you don’t know what they mean. Now I see that it’s about outcomes for residents, if you are designing with the end user in mind.”

From the point of view of the designers, one valuable piece of the curriculum was the explanation of design opportunities. Designers who had struggled to explain specific design opportunities in the past were thrilled to have clear examples and vocabulary to use with their clients. The Rose Fellows were especially excited to have a tool to use to educate their co-workers regarding design and to clearly articulate how specific design elements could impact residents.

The 2017 Institute curriculum was successful in positively impacting the way developers approach the design of their projects and the impact that it will have on residents and community members. One participant explained the Institute’s impact saying, “After the Institute, I realized how important it was for me to visit the site and get to know the area, even though the deal wasn’t closed yet. I got in the car and went up there for a whole afternoon. I asked people about the area, what it needed.”

As developers take more ownership over the design and its impact, they are more likely and able to advocate for the design decision with their other stakeholders.
Curriculum Modules

Course Introduction
The course introduction presented an overview of the timeline for the Affordable Housing Design Leadership Institute: What to expect and the learning goals. The webinar invited participating developers and designers to introduce themselves, their goals, and their reasons for participating.

Getting Grounded in the Affordable Housing Ecosystem
For designers working in affordable housing or those hoping to enter the field, the development process can be confusing, opaque, and discouraging. This module introduced designers to an “Affordable Housing 101” and offered an opportunity for firms familiar with the process to share about their experiences.

Getting Reacquainted with Design in Affordable Housing
In this webinar, developers were re-introduced to the design process and given tools and strategies to help navigate challenges to identifying, embedding, and keeping design excellence in affordable housing projects. Following a case study of CAMBA Gardens in Brooklyn, NY, developed by CAMBA Housing Ventures, this module focused on clarifying a project’s mission, understanding stakeholders, and articulating desired design characteristics for development projects. The Institute staff also discussed expectations of the development teams in preparation for the in-person workshop.

What’s Possible from Your Building
The webinar presented and discussed how design can connect to a project’s mission. Building on 9 Design Opportunities (site, massing, landscape, program, circulation, units, systems, materials, and culture), the webinar used an outcomes-based design process, 26 project precedents, and conversation between developers to show how design can be leveraged to elevate a project and amplify a project’s ultimate outcomes.

In-Person Gathering & Workshop
A selection of development teams, design resource team members, Enterprise Rose Architectural Fellows, Enterprise staff, MASS staff, and a number of additional participants came together for three days to charrette real projects in the developer’s pipeline and discuss opportunities for design excellence in the field of affordable housing. The in-person gathering was highlighted by an evening discussion with Maurice Cox, the Planning Director for the City of Detroit, and an introduction by Dr. Atyia Martin, the City of Boston’s Chief Resilience Officer.
Project Updates
The design and development teams came together to share updates on their projects and to talk with each other about ideas, changes, and challenges they have faced since the in-person workshop. The webinar allowed opportunity to recap major take-aways from the Institute and talk about the Design Excellence Mini-Grant and other available resources.

Measuring Impact & a Conversation with David Rowe
The final webinar provided an orientation to measuring impact, introducing the participants to the potential of affordable housing impact evaluation. Special guest David Rowe, Executive Vice President of CAMBA Housing Ventures, shared his experience after attending the Institute in 2010. The webinar concluded with time for developers and designers to hear from one-another and think of the next steps for embedding design excellence into the field.

Themes and takeaways. Chul Gugich, Project Manager from A Community of Friends (ACOF), reports back at the end of the 2017 Institute regarding his team’s themes, takeaways, and next steps when returning to the office.
Conclusion

A Framework to Empower Developers and Improve Design
Developing affordable housing is extremely challenging: Project teams need to balance many competing demands and are working hard to produce a high-quality project. James Madden, a Senior Program Director at Enterprise Community Partners and a former developer, captured this idea, saying, “Big dreaming happens upfront for the developer—the rest of the process is hanging on to it.” Developers are balancing many competing interests and demands, and are working hard to produce a high-quality project. By using this iterative framework that highlights the Mission, Design, and Impact of a project, we hope developers will feel empowered to take ownership over their design processes—regardless of project typology, development timeline, or other context-specific considerations.

Equipped with this framework, developers can pursue mission-driven, rather than constraint-driven projects, improving the design of their housing portfolio and increasing the positive impact of their projects.
Appendix A — Methodology

The research was carried out through four main methods:

• a literature survey of 43 resources,
• scoping interviews with 17 people across 4 industries,
• precedent studies, and
• case study research that engaged 30 different stakeholders.

The literature survey evaluated process-oriented tools aimed at both developers and designers. Tools were organized in relation to how and when they are used within the development timeline. This approach helped organize the research topics, as well as highlighted topics worth pursuing.

Scoping interviews with developers, designers, and experts in the affordable housing field helped inform the direction of the research and the resulting framework. Interviewees shared their experiences within the field and noted specific topics they believed should be covered in a design in affordable housing curriculum. These discussions also served as a “gut check” for the team to test findings along the way. Interviewees recommended additional experts they believed would have valuable insight for the team to talk with, which helped to expand and diversify the group interviewed.

MASS and Enterprise worked closely to select a built affordable housing project for a detailed case study to explore the nuances of how design is impacted from project conception through construction. In addition, the team carried out an evaluation process of over 40 potential projects that examined different aspects of the design of affordable housing, such as process, size, program included, environment, location (urban vs. rural), and design qualities. The goal of the selection process was to ensure the buildings referenced in the curriculum covered a range of projects so that the Affordable Housing Design Leadership Institute participants with buildings of various sizes and in locations across the U.S. could learn from the examples.

The team selected CAMBA Gardens in Brooklyn, NY, as the focus of the case study research. CAMBA Gardens is a supportive affordable housing development created in two phases on the campus of Kings County Hospital. To complete this case study, we interview 30 people both over the phone and on-site in New York City, including bank representatives, staff at the Federal Home Loan Bank of New York (FHLBNY), CAMBA social service providers, and CAMBA tenants.

David Rowe, the Executive Vice President of CAMBA Housing Ventures (CHV), attended the Institute during the development of CAMBA Gardens I and implemented Institute lessons in the project. CAMBA is seen as a success story for the design leadership the team incorporated into this project and subsequent projects in their pipeline. This research initiative was an opportunity to better understand the long-term impact of the Institute on CHV’s development process.
The detailed case study research on CAMBA Gardens uncovered insights into each step of the complex development process and revealed the full scope of the many players involved.

The wide-ranging projects examined as potential case studies were integrated into the curriculum as examples of the power of design to achieve intended impacts. The completed case study research and precedent reviews made it clear that additional in-depth case studies, beyond the scope of this project, would be valuable for further understanding the nuances of stakeholder relationships and state and local regulations among other factors, which vary across context.

The development and testing of curriculum for the 2017 Institute also played an important role in the research methodology. The curriculum materials were primarily deployed via a webinar format in preparation for the three-day in-person Institute, and the materials were received differently based on the audiences. Most of the developers initially felt like the material was too simplistic; however, when they needed to present and communicate information about their project and mission to the design teams, they found the framework and exercises useful and formative. The Enterprise Rose Architectural Fellows, who are designers placed in three-year positions in development or community corporations, immediately felt like the content would be incredibly useful, and asked for access to materials right after the webinars. This beta testing during the 2017 Institute helped define potential uses and audiences for the framework and curriculum materials.
Appendix B — Design Opportunities

The framework highlighted 9 Design Opportunities that can be leveraged to connect a project’s mission and user-driven outcomes. Each design opportunity is defined below, and is accompanied by a key question for each project to consider. These questions can inform early project ideation, conversations with design team members, or in-house areas for additional discussion and research.

<table>
<thead>
<tr>
<th>Definition</th>
<th>Key Question to Consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where you place and how you position your development within the existing built environment.</td>
<td>How can you leverage your site to create connection to (or separation from) your neighborhood?</td>
</tr>
<tr>
<td>The shape, form, and size of a building.</td>
<td>What massing would allow your project to both be responsive to context while also create a sense of place?</td>
</tr>
<tr>
<td>Incorporation of planting and the creation of indoor or outdoor space.</td>
<td>How might you activate your project's landscape for better outcomes?</td>
</tr>
<tr>
<td>Services included in the building and the purposeful arrangement of those services.</td>
<td>Where are there opportunities to use additional program to benefit residents and the community?</td>
</tr>
</tbody>
</table>
**Definition**

- **Circulation**: How people and things move through and around the building and the site.
- **Units**: How the individual unit layouts support its occupants’ needs and wellness.
- **Systems**: The building energy, water, mechanical, and ventilation interior and exterior systems, including fixtures and equipment.
- **Materials**: Used to form, cover, and clad the building.
- **Culture**: Cultural elements present an opportunity to leverage design to connect with local culture and create a sense of identity.

**Key Question to Consider**

- How might your project’s pathways, adjacencies, and view corridors be intentionally designed?
- Who are you designing for and how will that guide your unit design?
- What level of innovation or risk are you willing to take with your building systems?
- Where might there be opportunities to leverage material selection to achieve outcomes for your project?
- How might your project be culturally responsive to its future residents and neighborhood context?
Bibliography


Image Credits

Front cover. “Marion West.” Image courtesy of: Michael Walmsley.


Other images of the Affordable Housing Design Leadership Institute taken by: Harry Connolly. Provided by Enterprise Community Partners.