



CITY OF
ROCHESTER
MINNESOTA

CITY OF ROCHESTER BUILT ENVIRONMENT PROJECT SUMMARY

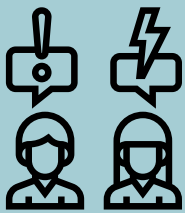
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ROCHESTER BUILT ENVIRONMENT PROJECT

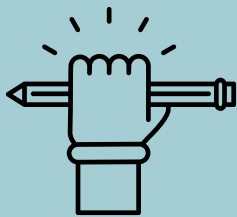
INTRODUCTION

It is not easy to attract and retain women of color in the white male dominant design and construction industry. Less than 1% of the construction industry positions in Rochester are held by women of color. Attempting to create a solution in isolation without women of color and industry leaders at the table will be ineffective and has the potential to do more harm than good. The best way to ensure that solutions are feasible, culturally appropriate, and sustainable is to involve both women of color and industry professionals in the co-design process.



Culture Clash

Industry said, "we have great jobs and benefits, come join us!"
Women of color said, "Can you accommodate for women on color on your worksites?"



Education gap

Girls are opted out of STEM by age 11-12.

Women in industry said they were encouraged to pursue a career in the built environment



Knowledge Gap

Women reported they didn't know so many careers existed in built environment.

PROJECT DESCRIPTION

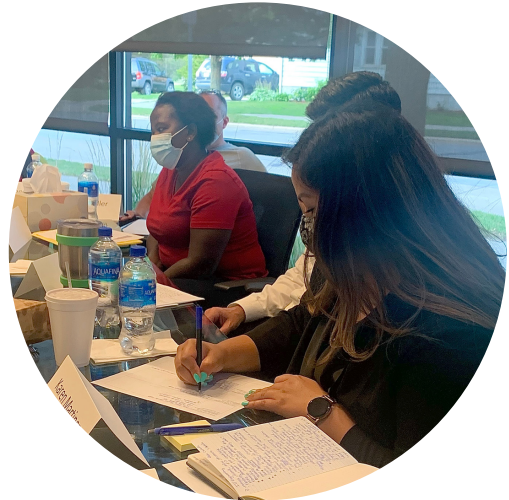
In March, 2021, over 25 interviews with women of color happened to gauge both their knowledge and interest in the construction industry. Those interviews were then collected in a shared database, themed, and cross-checked with research and quantitative data. What emerged from the data were three major themes: Culture Clash, Education gap, Knowledge gap.

The internal team facilitated factor validation with the co-design team and explored experiences and meaning behind each theme. It was critical to have these themes drive the methodology so that the work was grounded in the stories of our community along with best practices. As we dug into the three themes, we were able to clearly define what components were most important for both women of color and industry partners.



There were ten sub-themes that came from the co-designers:

- Industry DEI Competency Building
- Career Navigation
- Familial Support
- More than training
- Building Trust
- Expectation Management for Industry and BIPOC Women
- Early and Consistent Exposure to Career Opportunities
- Access to Networks and opportunity sharing
- Flexibility
- Mentorship



"Solutions to a problem that involves different groups, can't be arrived at and have it be a sustainable solution if it doesn't involve the input from all involved parties. You can't dictate solutions to a problem when you haven't heard the perspective from all who are participating or who are affected."

~Industry Co-Designer

These conditions became the basis for building a community-informed prototype/pilot. Over the course of the co-design sessions, industry partners recognized that their staff, work environments and outreach needed to change and be more inclusive and culturally competent to attract and retain women of color to their worksites. This process also exposed the importance of sending messages to young girls early and often that STEM fields, such as design and construction, are viable and welcoming. The other lessons from this process are that there is a wide culture gap between construction trades and women of color and navigating that tension through safe and iterative co-design steps is essential to ensure safety for the people involved.

The input from the co-design process suggested that a singular intervention could not address all the areas listed above, so we broke the pilots into three stages: Adult women, post-secondary training settings, and K-12 settings. This allows us the ability to modify the approach based on the audience/age of women and to ensure a systems-level intervention that has a strong likelihood of success.

NUMBER OF CO-DESIGNERS WHO REPORT INCREASING THEIR DEI KNOWLEDGE OVER THE COURSE OF THE CO-DESIGN PROCESS

(4 out of 6)

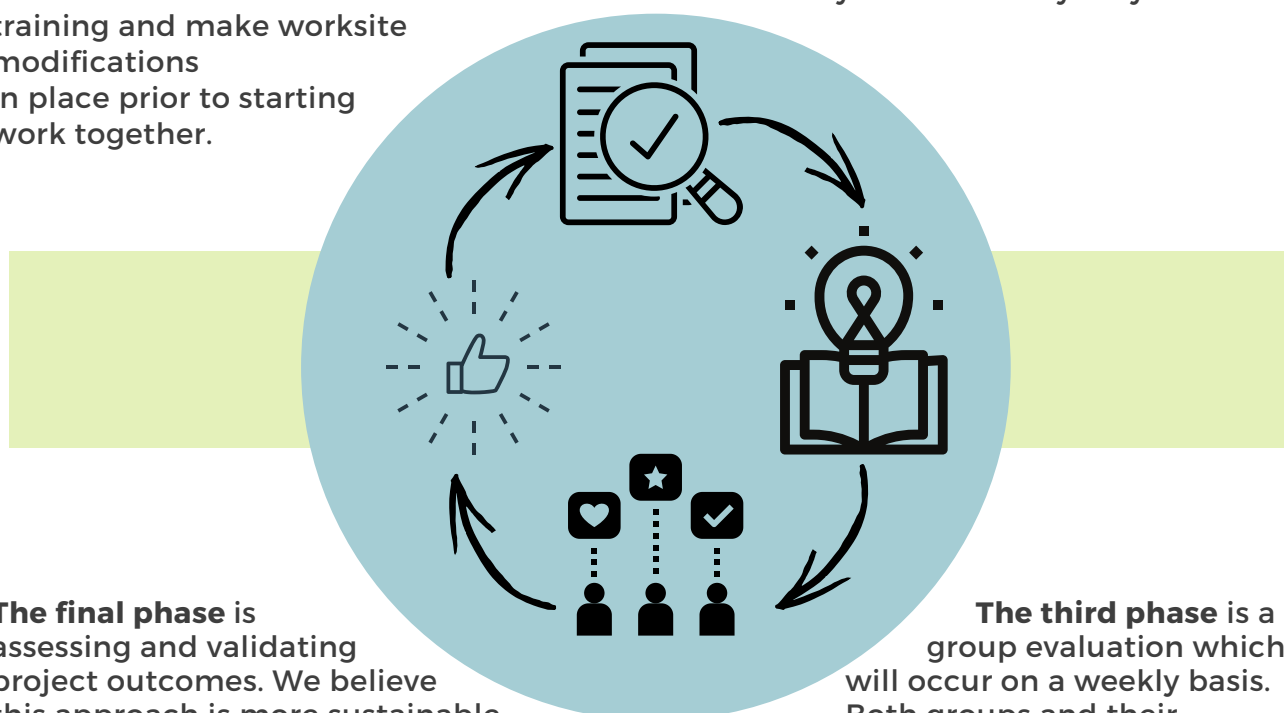


BUILT ENVIRONMENT SOLUTION

The pilot has four phases: assessment/competency building, worksite experience, group evaluation, and project outcomes.

In the first phase, women are assessed for wrap-around service needs and technical skills. The industry partner is assessed for Diversity, Equity, and Inclusion competencies, flexibility, and worksite readiness (separate bathrooms, accommodating uniforms, etc.) The women, in a cohort of 3-5 will enter training and/or get the wrap-around services in place while the industry partner's worksite crew receive training and make worksite modifications in place prior to starting work together.

In the second phase, the worksite crew and the cohort of women come together to work on a real project. Each group has a mentor that is also on site, able to offer support and mediate any communication issues that may arise during their work together. At the end of each day mentors will check in with their groups to address any concerns they may have.

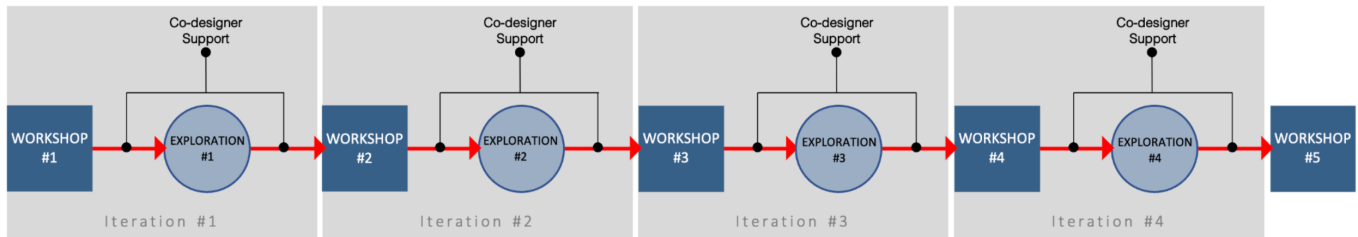


The final phase is assessing and validating project outcomes. We believe this approach is more sustainable for both women of color and industry partners because it was created with stakeholders, rather than for them, and may offer best practices for the industry now and into the future. In addition, we believe that the women who participate in the pilot have a high likelihood of becoming mentors for future cohorts and role models for younger girls curious about construction as an industry.

The third phase is a group evaluation which will occur on a weekly basis. Both groups and their mentors come together to assess how the project is evolving and address any standing issues before going back on site the next week.

"Industry DEI Assessment and competency building are important to support women of color. The mentors and facilitators will be very important. The regimen will be important." ~Co-Designer

DATA METHODOLOGY CO-DESIGN



A co-design structure is an iterative sequence of in-person workshops where a diverse collection of community co-designers (who are all professionally compensated) come together and collectively interpret information and insights as well as co-develop and test promising solution concepts. Each in-person studio is followed by independent exploration sprints where co-designers engage, collect insights, and develop ideas within their trusted networks (friends, families, neighbors, co-workers etc.) and bring them back to the next studio and so on. This allows each co-designer to have trusted and in-depth explorations and conversations with community members that are often unreachable through other engagement or research approaches.

The design process is personalized as each co-designer brings different expertise, skills and personality traits (which are all assets). Design facilitators connected one-on-one with co-designers in each iteration to offer support and guidance to develop customized approaches and tools that are culturally appropriate and effective. The primary advantage of this structure is that it allows for the emergence of insights that would be inaccessible otherwise - regardless of investment of resources or time.

PHASE	PURPOSE
Workshop 1	Develop relationships with other co-designers, gain familiarity with the project, and develop and practice the first round of interviews.
Exploration 1	Co-designers interview BIPOC community members and industry members within trusted networks to explore perspectives and experiences identifying, accessing, and navigating opportunities within the construction industry.
Workshop 2	Each co-designer shares insights from interviews. The group develops a list of themes that are contextualized and expanded from the original 3 themes of, 1) Culture Clash, 2) Education gap, and 3) Knowledge gap.
Exploration 2	Co-designers interview and explore with BIPOC community members and industry leaders: 1) what spaces/places would be best to reach BIPOC women, 2) what spaces/places are available and have capacity to provide training and 3) which sectors/companies in the construction industry are ready to move towards more inclusive work environments/experiences?
Workshop 3	Each co-designer shares insights from interviews. The group develops an opportunity map that identifies the most promising (most likely to succeed long-term) opportunities for prototype development. Group identifies themes for further exploration & refinement.
Exploration 3	The Design Team translates the validated input and creates a prototype so co-designers can react and refine in workshop 4.
Workshop 4	Co-designers offer input and feedback on 1) initial industry prototype storyboard, 2) mentorship structure and opportunities and 3) the co-design approach.
Exploration 4	Co-designers interview BIPOC community members and industry members within trusted networks to gain feedback on industry prototype storyboards.
Workshop 5	Each co-designer shares insights from interviews to refine the industry prototype. Co-designers validate that the proposed pilot (and phasing of the pilot) addresses the themes and leverages the assets identified throughout the co-design process.

INTENTIONAL INVESTMENT

Relationships matter.

Access to networks emerged as a major theme. The importance of creating avenues for both industry and women of color to make connections is vital for success.

By using co-design, the City of Rochester made an intentional investment in community members' social infrastructure. The outcomes of this investment include a scalable process across communities and issues, and growth of people's networks. Both are essential for access and growth as a community.

FINDINGS

CULTURE TRUST RELATIONSHIPS

Only one of our co-designers had previous experience with this methodology. At first, the designers were unsure if this would be beneficial to them or their communities. However, by the 5th, and final session, 100% of designers said this process was beneficial for the community and the City of Rochester should adopt this process for future projects. One designer said, "The most valuable part of this process has been to collaborate and listen to different perspectives of both employers and BIPOC women."

By creating the solution together, all co-designers indicated that the project is more sustainable, and balances addressing the needs of both BIPOC women and Industry. One Industry co-designer said, "Industry DEI Assessment and competency building [are most supportive for the needs of BIPOC women]. The mentors and facilitators will be very important and the regimen [of the solution] will be important."

Overall, the co-design process **and** the co-creation of the solution is critical to a sustainable program that benefits generations of BIPOC women and the built environment industry. What was initially identified as a knowledge gap in early interviews deepened and exposed the actual root challenge, which is building trust and respect within the built environment industry.

The co-created solution ensures that women of color will not be subjected to psychologically unsafe environments nor will they be expected to assimilate to this predominantly white male-dominate culture. This model of onboarding women within the worksite is intended to create more inclusive spaces within the built environment industry paving the way for more women to pursue their dreams and ambitions.

"The most valuable part of this process has been to collaborate and listen to different perspectives of both employers and BIPOC women."

"Education and exposure is very important to creating opportunities for BIPOC women in the construction industry. Removing barriers such as stereotypes is just as important as removing physical barriers."



CONCLUSION & RECOMMENDATIONS

Sustainable, community-wide solutions cannot be created in isolation from the end users. For viable solutions, the co-design process with a built in factor validation process offers opportunities to solve for the problems, as they are experienced by those most impacted by them, and not what is perceived to be the problem from those, often with little or no shared lived experience. Shared power and accountability is a reliable way to design a more inclusive and welcoming community for the future.

Recommended next steps

- Pulling together education professionals to review and revise prototype for their educational settings.
- Identify co-designers, BIPOC women students, young professionals, educators, and industry partners to start the design process for PK - 12 prototype.





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BLOOMBERG PROJECT 2021
WOMEN OF COLOR IN THE BUILT ENVIRONMENT