MERGE

When DesignPhiladelphia 2017 kicked off with an opening night party at Jefferson University’s Dorrance H. Hamilton Building in October, guests were greeted with a dramatic glass installation on adjacent Lubert Plaza. MERGE was the culmination of a collaborative design-build project between the Architectural Glass Institute (AGI), the Finishing Trades Institute of the Mid-Atlantic Region (FTI), and Jefferson University. Third-year architecture students, journeymen and apprentice glaziers, and a cadre of professionals worked together to execute the hands-on project.

FIGURATIVE & ARCHITECTURAL

MERGE represents a figurative and architectural link between Philadelphia University and Thomas Jefferson University, now known as Jefferson University. MERGE makes a symbolic gesture toward the newly combined university, providing a vantage point to look toward the future. Two glass walls, each representing a university, form a pathway that shimmers in the sunlight and reflects the surroundings. Each wall is composed of small square pieces of glass with different reflective qualities, providing different views and operating like the eyes of many insects seeing in all directions. The overlap of the two walls offers the greatest transparency. Multiple views and reflections perceived at this merge point are emblematic of the two universities bringing different disciplines together to form new views on the future of education.

ENGAGING THE CONTINUUM

MERGE was conceived and executed to engage the design continuum – linking architecture students, glaziers, and allied professionals to share real-world experiences and build long-term relationships that strengthen the industry. Jefferson Professor and Director of Architecture Programs, James Doerfler, AIA, and AGI Marketing Director Stephanie Staub conceived of MERGE as a real-world learning experience. Doerfler explained, “There is no better learning experience than drawing and making, connecting your brain to your hands.”
format pavilion. Thanks to coordination over the spring by Doerfler and Staub, DesignPhiladelphia selected MERGE as its signature project for the 2017 festival. That designation and identification of the Lubert Plaza site resulted in a redesign to a single pavilion with a larger plaza presence.

Architecture students began by participating in AGI's Architectural Glass Boot Camp at FTI, an interactive instructional program developed specifically for architects to interface with apprentice glaziers and exchange information. The program offered an introduction to the FTI shop and taught students firsthand how curtain wall systems go together. “The students really enjoyed Boot Camp,” explained Doerfler. “It helped them understand the complexities of doing a weather tight system, and showed them how to look for opportunities for innovation with the details.”

THE COLLABORATION
Glaziers joined the studio after the first week and immediately provided input on constructability and fabrication methods, helping to shape the final design. The combined team met regularly at FTI, obtained the input of industry sponsors who provided materials sourcing and digital fabrication, refined the final concept, and completed documentation.

“There was no resistance whatsoever to exploring, or pushing the envelope,” said Doerfler. “Everyone was very open and collaborative. They were asking each other questions instead of needing me or Jeff to pose or moderate the questions.”

Kansler agreed. “The collaborative aspect was more rewarding than I could have hoped at the outset of this project. The glaziers had such a pronounced and impactful influence on the process.”
He and co-leader Steve Metzger add that this may offer significant commentary on the typical design and construction process where tradespeople often have little influence over design decisions except in cases of value engineering.

“The old adage that ‘time is money’ is perhaps truest when it comes to construction,” explained Metzger. “Enormous amounts of money and time are wasted waiting for RFIs. When the fabricator/installer is involved with the design phase, s/he has a better understanding of the project and therefore fewer questions or problems that can be addressed early in the design phase, way before crunch time.”

Kansler summarized the team’s conclusion: “This project highlighted that maybe there’s a better way; by incorporating more input early, you get closer to achieving the [shared] design vision and can find better ways of building based on the tradesperson’s input. It’s better for everyone involved.”

THE BUILD
When the fall semester began, the team spent six Saturdays building the installation at FTI. On September 30, the full team dismantled, transported, and installed MERGE in Center City. Everyone involved with MERGE emphasized the same point – the design-build project was collaborative from start to finish. The architecture team didn’t hand off to the glaziers for construction; responsibilities were shared, dialogue helped bring about simpler yet more elegant solutions, and the commitment level was mutual.

Jefferson student Jessica Schell described her hands-on role: “I helped grind down screws, cleaned up welds, applied the dichroic film to the glass. I learned a lot about what glaziers do. I really respect and appreciate all of the hard work they put into building and how much they care for the work that they’re doing.”
BIG PICTURE IMPACT
The Center for Architecture + Design hosted a MERGE panel discussion to recap the process and share lessons learned. Over 40 people attended the discussion, which focused on how design-build education can unite future generations of design and construction professionals. “We saw from the successful output that it might be a useful lesson to transform the professional environment,” said Kansler.

The competition, course, and installation of MERGE were funded through a Federal Mediation and Conciliation Services grant received by FTI. AGI managed the program. The partnership initiated a relationship between FTI and Jefferson, leading to discussions toward developing articulation agreements that will allow the seamless transition of earning construction technologies associate degrees through FTI to bachelor’s degrees through Jefferson.

“What is so compelling about this collaboration is that it is clear the educational institutions and industry should be moving towards models like this,” wrote AIA Philadelphia Executive Director Rebecca Johnson in an August 31, 2018 blog post. “The more communication between designers and craftsmen, the more the design can be protected and more fully realized, and many times the project will be executed more efficiently and ultimately saving money by avoiding delays and change orders.”

MERGE was made possible by the generous support and in-kind contributions of the following sponsors:
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