



# No Stones Thrown with Addition of a Custom-Designed Glass Conservatory to This Historic Home

**B**rent Hull knows a thing or two about restoring historic properties. He also knows how to build custom additions that complement a home's original design by using traditional craftwork to ensure a seamless, organic feel. This knowledge makes Brent a nationally recognized authority on historic design – especially in regard to architecturally accurate period moldings and millwork. The founder of Hull Historical, a Fort Worth-based contracting company that focuses on restoration and high-end construction, is also one of the experts regularly featured on the *Build Show Network*.

One of Brent's projects in recent years involved a complete reimagining of a 1928 Colonial Revival country estate originally designed by renowned architect John Staub. Staub was a well-regarded designer of mansions and public spaces, mainly in the greater Houston area, from the 1920s to the 1960s. Staub had a unique

habit of including differing European architectural styles within each of the many-roomed residences he designed.

The homeowners contracted with Randy and Amy Walton, well-regarded owners of Walton & Walton, a Fort Worth firm that specializes in modern architecture and interior design that mixes historical approaches with modern luxury. The restoration featured ornate woodwork and small additions designed to fit the period-specific craftsmanship while updating the home to a more modern living space. The owners were so impressed with the team's work on the main home that they hired them a couple of years after the restoration



The project's general contractor, Brent Hull is a master builder who specializes in restoring historic homes and building new homes using the specifications and techniques employed by master craftspeople of the past. Brent is an expert on period building, has his own YouTube channel, and is one of the hosts of the *Build Show Network*.

**The Unico System®**



This period-specific glass conservatory is an addition to a 1928 Forth Worth, TX home designed by renowned architect John Staub.

Then, too, conservatories can be tricky to heat and cool due to the amount of transparent glass that allows so much light in but, unfortunately with it, a large amount of thermal radiation.

That's where the expertise of Travis Dodson came into play.

### The Solution

Travis is the owner of High Velocity AC and has worked with Randy, Amy, and Brent on a number of their restorations and new builds meant to incorporate historic design elements and aesthetics. As his company's name implies, Travis specializes in small duct high-velocity HVAC systems, and he and Randy knew that the only way to properly heat and cool the new conservatory addition was with The Unico System.

Travis was able to overcome the challenges posed by limited space for supply duct – space that also had to house recessed lighting fixtures and wiring for other technical amenities – by incorporating his knowledge of working with small duct systems for so many years. Rather than use Unico's slotted outlets typical in such applications, he used his expertise to craft bespoke rectangular openings to supply the required airflow while keeping operation noise to less than a human whisper.

was complete to design and build an all-glass conservatory on the back half of the home.

### The Problem

Choosing a style of conservatory wasn't an issue because Brent and the Waltons have worked with fabricators who create period-specific structures that fit the aesthetics of historic homes. However, finding a way to heat and cool the addition without disrupting its interior layout, which needed to mimic and continue the attention to detail accomplished with the home's restoration, was another matter entirely.

The painstaking refurbishment of the home would be completely undone if the team was to simply graft a new conservancy addition without being mindful of its interior design and how it fits with the main house. They also needed to find a central HVAC system that would work in the extreme Texas seasons and not disrupt the design elements that allowed the addition to fit with the style of the house.



The Unico System return air route for two 5-ton systems is cleverly disguised with these beautiful gold-colored grills.

On the return side, a large hollow wall space was used to deliver return air for both 5-ton systems, with the return openings low to the ground and disguised with bespoke, period-specific cross-hatched grills.

The choice of Unico was not just due to the space restrictions and need for minimum impact on the aesthetics, but also the unique conditions posed by an almost all-glass space needing to maintain comfortable temperature levels during extreme Texas temperatures. In summer, temperatures can climb above 110° F, creating a



These custom-designed rectangular openings provide whisper quiet heating and cooling for this nearly all glass addition.

monumental thermal load from the exterior temperature and heat radiation caused by so many windows.

Says Travis, “This space requires 10-tons of cooling, supplied by two 5-ton Unico Systems, just to keep a constant temperature in the low-to-mid 70s. Then, too, you have to consider the humidity that builds due to the difference in outdoor and indoor temperatures and all that glass. Unico is the only system that can fit into the space, preserve the aesthetics, and provide consistent temperature and humidity control.”

The conservatory’s heat source is covered by two Trane outdoor heat pumps which were able to be located 130-feet away and down an embankment to minimize noise and aesthetic impact. These units supply heat to the two Unico System heat pump coils in air handlers located in a dead space above the conservatory’s bathroom

### **The Results**

Preservationists like Brent and architects like Randy love

The Unico System because its inclusion doesn’t detract from the home’s original design and aesthetic. We can imagine that John Staub himself would be pleased that the upgrades and additions involved with this restoration were possible without disturbing his original vision for the home.

While all team members are happy with the results the final verdict, of course, rests with the homeowners. They are simply thrilled to have this lavish addition to their beautiful country estate. Movers and shakers in central Texas, the homeowners often use the space for charity events and presentations to their peers in the Dallas-Fort Worth community.

When not being used for public events, they are able to enjoy the beautiful space in quiet, efficient, and sublime comfort.

### **Architect & Interior Designer:**

Walton & Walton  
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[www.waltonwalton.com](http://www.waltonwalton.com)

### **General Contractor:**

Brent Hull  
Hull Works  
(817) 332-1495  
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### **Installer:**

Travis Dodson  
High Velocity AC  
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When the conservatory is not being quietly enjoyed by the homeowners, the space is used for public presentations and charity events.



## The Unico System®

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Unico, Inc. is the leader in Small-Duct High Velocity (SDHV) heating and cooling systems and other high-end HVAC systems. The company manufactures all of its products in St. Louis, Missouri, with over 125,000 square feet of modern manufacturing space. The company is well known for extensive use in older, architecturally unique homes and buildings as well as elite, high-end custom homes. The company is family owned and operated and is available throughout the United States and Canada, and in over 28 countries around the world.



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