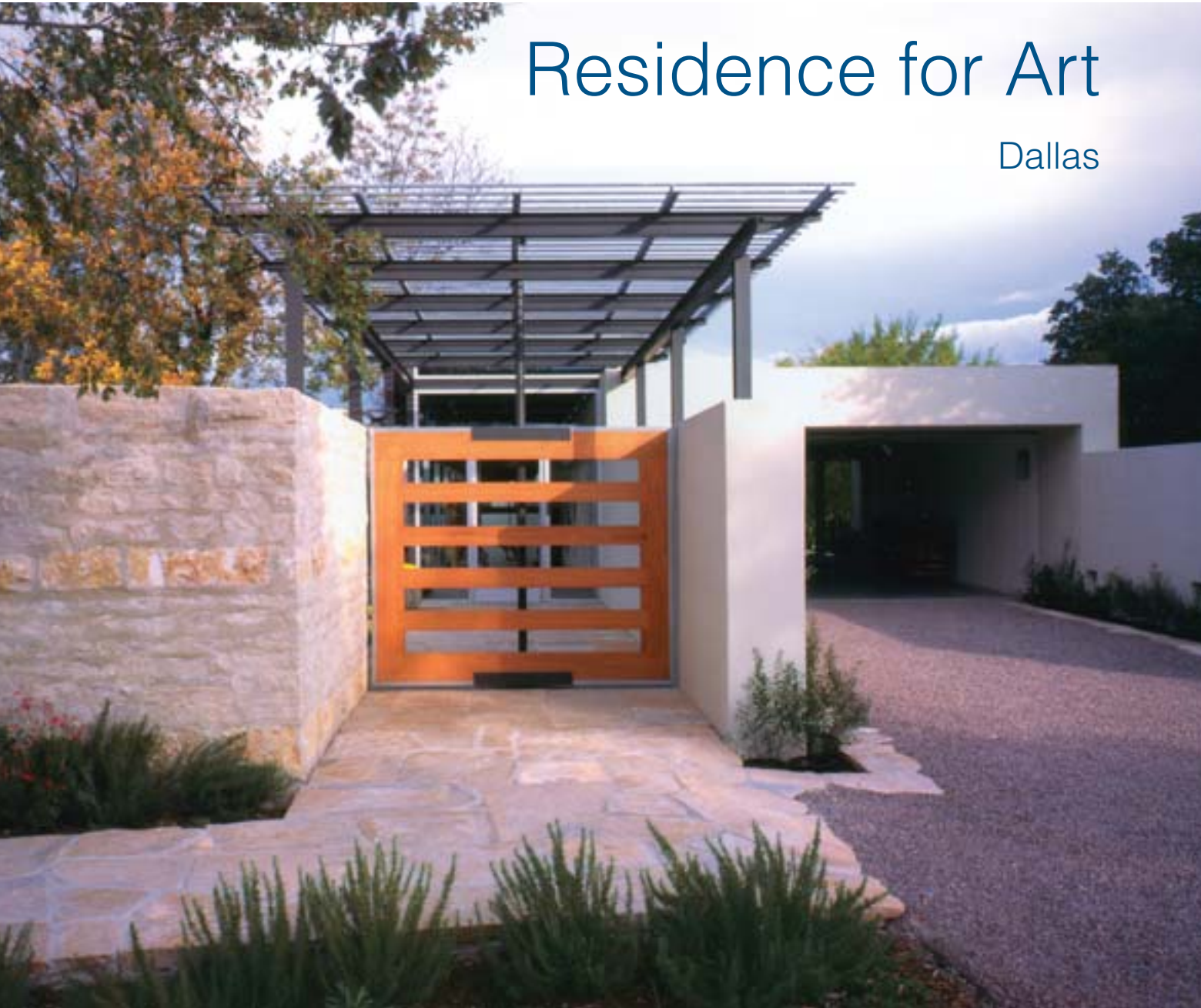




national winner  
less than \$10M—single-family residence

# Residence for Art

Dallas



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The Residence for Art is located on what was once a larger estate of rolling meadows, hedgerows, and woodlands. It is composed of two intersecting walls that reinforce the natural edge of a large meadow. The walls separate the land from the rest of the estate and create a separate courtyard around an existing carriage house.

The client wanted a simple, pared-down home that focused on the bare essentials: a bedroom, a living/dining room, and a dynamic space for an extensive painting and sculpture collection. The main public spaces with steel “butterfly” roofs include the long ramping gallery, the living/dining room, and the master bedroom. They are designed as light steel-and-glass pavilions that rest gently on art walls

and are open to the courtyard and meadow. The living room and master bedroom pavilions have large, sliding-glass doors that allow the rooms to flow onto a shared grass plinth with expansive views to distant sculpture.

The architecture of the house called for an extremely light steel roof structure. No member sizes exceed 8” in depth, and most roof purlins are W6s. Likewise, because the columns were

## juror comments

“Extreme simplicity and clarity of organization. Straightforward and simple framing offers refined elegance.”

designed to be integral with all glass walls of the house, the columns could not exceed 4". Therefore, all of the steel columns are either W4x13s, 2-C4x7.25s tied together, or a composite column made up of an L4x4x1/2, reinforced with an HSS 2x2x1/4. The inherent lightness of the structure and the modest spans enabled all of these elements to work, and they add to the overall feel of an open, glass house for the display of art.

Given that two sides of the living-room wing and three sides of the bedroom wing are all glass, and that the member sizes were exceedingly small, the lateral resistance of the structure could not be accommodated with the steel framing. Fortunately, the architect wanted exposed concrete and/or natural stone for the other walls of these spaces, thus allowing them to be utilized as shear walls.

Two masonry-clad wings house the private/service part of the house. A plaster wing houses the main garage and master bath. A wedge-shaped stone wing houses the kitchen, and forms the walls for paintings and exterior spaces for sculpture.

It was the desire of the architect to express the steel structure and incorporate the steel columns and spandrel beams into the exterior glass wall. This, however, would create heat gain and condensation problems with the outside exposure of the steel members to the extreme Texas heat, and the inside exposure to air-conditioning. In order to eliminate this problem, the columns and spandrels would utilize double-steel channels separated by a 3/8" air space. Thus, the columns are 2-C4x7.25s, and the spandrels are 2-C6x13s, with 3/8" plates tying them together at 36" o.c. This achieved the desired appearance of an exposed steel structure, while also solving the thermal problems. ★



### ARCHITECT

Lake/Flato Architects, San Antonio

### OWNER/DEVELOPER

Residence for Art, Lake/Flato Architects, San Antonio

### STRUCTURAL ENGINEER

Goodson Engineers, Inc., Dallas

### GENERAL CONTRACTOR

Tommy Ford Construction, Dallas