

## MERIT AWARD

\$100M OR GREATER



# DFW Consolidated Rent-a-Car Facility DALLAS-FORT WORTH, TX

### JUROR COMMENTS:

*A striking example of what a cabled steel structure can do for an ordinary design problem.*

#### **STRUCTURAL ENGINEER**

L.A. Fuess Partners Inc., Dallas

#### **ARCHITECT**

Corgan Associates, Inc., Dallas

#### **GENERAL CONTRACTOR**

Thomas S. Byrne, Inc., Fort Worth

#### **FABRICATOR AND DETAILER**

North Texas Steel Company Inc.  
(AISC member), Fort Worth

#### **ERECTOR**

Bob McCaslin Precast Erection  
Company (SEAA member),  
Fort Worth

#### **ENGINEERING SOFTWARE**

RAM Structural System, RISA 3D

#### **DETAILING SOFTWARE**

MicroStation

**R**ecognizing the car rental industry as an integral component of the aviation transportation system, DFW International Airport and the architect, Corgan Associates, developed this new rental car terminal to consolidate older, obsolete rental car facilities. The new facility is more convenient and reduces traffic congestion.

The rental car facility encompasses 200 acres. The keystone of the facility is a two-story, 130,000-sq.-ft common "terminal" building. The crescent-shaped plan easily guides passengers through the facility. It houses 10 rental car companies; and a two-story, 1.4 million-sq.-ft parking structure with capacity for 5,000 cars. Both the common building and garage are expandable.

The structure has been designed to accommodate operational and safety

requirements by separating the garage into three parking areas which are covered to provide protection from the harsh Texas elements. The upper level of the garage, where cars are returned, is partially covered by a suspended metal roof canopy to protect customers and vehicles from inclement weather.

This is one of the primary areas of the project in which structural steel is expressed architecturally—in the repeating system of trusses constructed of arched structural pipe, wire rope tension members, and vertical pipe struts. The vaulted roof forms are arranged to direct travelers between the car-rental and car-return areas outside, and the check-in desks inside. The repeating pattern of arched trusses, rolled metal roofing over structural metal decking, and tension cables anchored to architecturally expressed, gusseted column



capitals gives the upper level of parking areas its identity.

On the opposite side of the rental car facility from the covered parking area, a dramatically curved HSS framework defines the upstairs bus pick-up area, where travelers begin their short return trip to the airline terminals. Tension cables and gusseted column capital details seen in the covered parking areas recur here.

The facility's design reflects simple, elegant forms that provide a pleasant atmosphere for travelers. It creates a strong identity for the car rental operations while acknowledging the character of the airport's original terminal design. ★

