

structurally  
sound

## CRUISING THROUGH THE OC



Thornton Tomasetti



Thornton Tomasetti

**THE GATEWAY** to all transportation in Orange County, Calif., is now open.

Designed by HOK & Parsons Brinckerhoff, the Anaheim Regional Transportation Intermodal Center (ARTIC) is a 68,000-sq.-ft regional transportation hub providing multimodal transit services (rail and roadway) throughout Orange County. The project includes the Intermodal Terminal and the Metrolink/Amtrak concourse bridge.

The terminal building houses a grand hall, ticketing and retail space beneath a soaring open structure enclosed with inflated ETFE cushions, the largest installation of ETFE membrane pillows in North America. Thornton Tomasetti served as the structural engineer for Phase 1 of the project and provided façade consulting services during the design competition and early architectural design phases.

Beck Steel, Inc., in Lubbock, Texas (an AISC Member and Certified fabricator) was the project's steel contractor.

The terminal features a grid shell vault structure and a three-story, interior terminal building that are structurally connected. Rising from a height of 80 ft at its southern end to 115 ft at the main entrance, the structure is 250 ft long and 180 ft wide.

Thornton Tomasetti's structural design employs 14-in.-diameter curved, interlocking steel tubes to form the structure's highly efficient diagrid shell, which supports the ETFE cushions. This steel shell is clearly visible through the façade, creating a variety of impressive visual effects and contributing to an iconic regional landmark.

The \$188-million transportation center, which opened in December, is expected to serve 10,000 commuters a day. ■