

## *Meeting Code Compliance and Design Requirements*

**Challenge.** This 85,000 sq. ft. iconic performing arts center consists of a two-story 600-seat main theatre, a 200-seat studio theater, a one-story gallery and a multi-purpose room and lobby, all enclosed within a primary building envelope. The center's design provided challenges in location, multi-use and code requirements, acoustics and the use of wood-finish materials.

Long before the September 9, 2007 grand opening of the Tempe Center for the Arts in Tempe, Ariz., Rolf Jensen & Associates (RJA) was called upon to work with the design team to establish fire and life safety objectives and code compliance strategies. To address the acoustic concerns of locating a performing arts facility directly beneath the flight path of a major airport, it was designed as multiple buildings within a single building envelope. This created challenges related to how the building code was intended to be interpreted and applied to this unique structure. Making these challenges even more difficult was the designer's strong desire to liberally use wood finishes to give the facility its desired richness and appearance. Since wood materials were not allowed based on the required construction type, it became RJA's responsibility to research and determine if, or how, wood could be incorporated into the project. Due to the multiple levels, fixed seating and sound/light locks inherently associated with a performing arts center, meeting the egress requirements of the code presented numerous challenges which RJA assisted in resolving.

**Solution.** RJA, one of the leading fire protection and code consultants in the country, provided code consulting and third-party inspection services for the Center's smoke control system. RJA developed the fire and life safety report for the project and met with the City of Tempe to review the report and gain acceptance. RJA also developed testing scenarios for the facility's smoke control system that were to be implemented and observed by RJA prior to occupancy. To meet the designer's objectives of using wood as one of the primary finish materials, RJA determined that this could be accomplished through the inclusion of an area separation wall within the structure; this allowed the use of wood materials within the main theater and satisfied the height, area, and construction requirements of the applicable code. At completion, RJA directed and participated in the testing of the fire alarm system and smoke control system to verify compliance with the fire and life safety report and the approved plans. RJA's work and final report was critical to the success of the project and allowed the facility to open on time.

**Result.** RJA's staff provided code consulting, drawing review, egress, ADA review, construction services and final testing and inspection of the smoke control system. The \$65 million Tempe Center for the Arts opened on time to critical acclaim of what is now called "A Lakeside Masterpiece."



- **Code Consulting**
- **Construction Management**



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