

## **Category: 3 – Meeting the Challenges of a Difficult Job – GC**

**Contractor: Turner Construction Company**

### **Project Name: Helen G. Bonfils Theatre Complex Space Theatre Renovation**

Building in occupied spaces always presents challenges, but even more so when the space is an active theatre complex housing four individual theatres, an event ballroom, a full production schedule, and a shared lobby in the heart of downtown Denver. The Turner team on the Helen G. Bonfils Theatre Complex Space Theatre Renovation addressed these difficulties, however, delivering a world-class venue on time for its inaugural production of *Macbeth*. This 434-seat, two-level theatre features a pentagonal, in-the-round layout so the audience surrounds the performers on all sides. Such a design provides a truly unique experience for patrons, but required significant design foresight and construction ingenuity to conceal the MEP, audio/visual, theatrical lighting, and sound infrastructure, while maintaining the sightlines and clearances critical to the theatre's atmosphere. Another major focus of the project was to bring the space up to modern code and public safety requirements and create an arts venue that is fully accessible and delivers a continuity of experience for all patrons, including an accessible lobby, limited use limited access elevators, and ADA-compliant seating. The project also nearly doubled the restroom capacity, added dressing rooms, a renovated back-of-house area, and a trappable floor. Total construction value was \$10.42M.

The first challenge that the project team overcame was the demolition of the existing lobby and restroom structure in the complex's shared atrium. Through extensive dust containment and close coordination with production staff to schedule around rehearsals and performances, the team demolished more than 350 tons of concrete in between showing for *Sweeney Todd* with waste flowing out the Champa Street loading dock and no impact to patrons or building operations. Demolition crews began at the foundation level and worked up toward the theatre level during the theatrical season, using shoring to support the final level until the last show ended in May 2016. From May to September, the restrooms, lobby, and final floor were demolished and over 550 tons of concrete poured back creating two levels where only one had

previously existed to return the theatre to operational condition before shows resumed in September 2016.

The foundation system of the building had been modified many times since the theatre's construction in 1979 and included drilled piers, cast-in-place concrete, and structural support from above for hanging elements. The new design used a shallow foundation system to tie into all three of these existing systems while accommodating existing utilities, new utilities, and new elevators.

The surfaces of the theatre were designed with acoustical performance and sightlines as paramount concerns, which called for various materials to reflect, absorb, or diffuse sound as required. Surfaces not necessary for acoustic performance were clad in steel, wood paneling, or gypsum board carefully painted to blend with the surrounding concrete. The final result is a clean, but industrial aesthetic that blends with the original building and yields continuity by concealing the various building systems required to support a modern theatre's operations, which would have otherwise interrupted the atmosphere.

Near the completion of the project, a currency crisis in India, followed by a cyber-attack on the shipping industry, endangered the delivery of all the seating for the theatre. Completion was further complicated by the trappable floor, which is the only such floor in the nation with a portion of the audience seating over the trap, providing flexibility for theatre productions staff. Through close collaboration with the client, pull-plan scheduling, two modifications to Denver's Municipal Code, hundreds of gallons of intumescent paint, and a large swell of workers over phases, the team was able to overcome these setbacks and deliver the finished theatre in time for the scheduled ribbon cutting.

Safety of workers, patrons, and building staff was ensured by constantly adjusting the railings and other safety barriers to the ever-changing requirements of the space. During certain phases of the project, this meant week-to-week removal and reinstallation of railings. Through this proactive approach, pre-task coordination meetings, and the vigilance of the project team in enforcing safety compliance, the project experienced no recordables.

Turner Construction is proud to partner with the Denver Center for the Performing Arts (DCPA) through this project. By helping DCPA fulfill its mission to bring unforgettable shared cultural experiences to Denver, Turner achieves its own goal of being a good steward of this great city and building spaces that have a positive impact on the community. As Denver Mayor Michael Hancock said at the ribbon cutting ceremony, “We want to make sure to provide these world class spaces for the generations that are coming behind us...to give them the opportunity to experience arts and culture right here in their own city.”

## **Client Testimonials**

“This wouldn’t be possible without the tireless efforts of Turner Construction and all of their subcontractors. Their efforts along with our amazing DCPA team kept us on time and budget as we move our theatrical world into the 21<sup>st</sup> century.”

- Clay Courter, Denver Center for the Performing Arts, Vice President of Facilities and Event Services

“We were very blessed with an incredible team from Turner Construction. I can’t imagine having gone through it with different people. It really made all the difference that they were always willing to let me say, “But I really need it to do this.” And they would go back and help us and say, “Okay, let’s figure out a solution to let it do just that.””

- Jeff Gifford, Director of Production, Denver Center for the Performing Arts

“I think the right environment is created by adopting the owner’s goals and not questioning those, so when they say they need the loading dock to bring a show in, I never heard Turner say once, “You can’t do that, you’ll have to wait; our needs come first.””

- Chris Wineman, Semple Brown Design, Principal













