

by Pam Kershaw

Rebuild of Her Majesty's Theatre Adelaide

presented challenges for local joinery

CONTRACTED TO undertake the joinery for the recent \$66 million rebuild of Her Majesty's Theatre in Adelaide, John Reuther of JRCM Commercial Joinery says the project presented a number of challenges including timeframes, the delicate nature of much of the work, the acoustic requirements and the complexity of major timber features of the auditorium.

The Adelaide landmark is the last remaining example of the famous chain of Tivoli theatres and the rebuild (which retained only the grand 1913 façade and one other external wall) delivered a magnificent state-of-the-art theatre. The design by COX Architecture features twin sweeping staircases in the main foyer, custom-built curved timber balcony fronts in the 1500-seat auditorium, and Edwardian elements such as a pressed metal ceiling, elegant architraves and mouldings.

"It is a transformational refurbishment project which blends the original heritage external fabric with a reimagined interior," says COX Architecture Director Adam Hannon. "Our aim was to be inspired by the original Edwardian interiors that were sadly lost during previous renovations in the 1960s and 1970s, and by the performances that have graced the stage over so many years.

"Faceted and timber surfaces, including some complex curves, take centre stage within the architecture as well as providing an essential acoustic layer, while the bold new balconies pay homage to the original curved lines from the 1913 heritage plans," Hannon says.

Reuther says the first challenge was having it all completed within the builder's (Hansen and Yuncken) timeframe. "The work was so delicate and complex that we weren't quite sure how it was all going to roll," he says.

Completing the timber balcony fronts for the dress circle and upper circle took about eight months. The steel manufacturer constructed frames in the theatre to support the fronts, however, Reuther had prototype frames for both balconies delivered to his Adelaide factory so the sections of the balcony fronts could be manufactured, bolted together and hung on the test frames.

"We had to make sure that when we unhooked the balcony fronts and took them to site, they would fit perfectly on the frames that had been installed. We did this because of the program issue. We could see that we couldn't manufacture the balcony fronts onsite because of the eight months it took to build them."

Everything fitted perfectly, and Reuther was relieved to have "ticked that box".

Mirror images for the balcony fronts

The fronts were made in two sections – left and right – and it was essential that they were mirror images. While computer imaging and CNC routers were vital in achieving this, the choice of American white oak was also important.

"Originally, they wanted Tasmanian oak to keep it all Australian made. But there's too much variation in colour in the Tasmanian oak, with pinks and tans, while the American oak is a little more consistent and a little easier to work with," Reuther says.

The other major challenge was in the huge panels that curve – both concave and convex – on both sides of the auditorium and fit into the façade near the stage.

Roughly six metres high and 15 metres long, the panels were built onsite because of their size and required scaffolding on both sides of the building. Scaffolds could not be taken down until the work was completely finished, and for safety reasons no one could work underneath.

Reuther observes that this "created a lot of tension" at times.

The project took about four months, and while Reuther's company has done similar work, there has been "nothing quite as intricate as this".

"It's all solid timber and we've had to curve it to suit the shapes required. Not only for the look of it, but the acoustic side of things was very important."

Adjustments made for acoustic ratings

Sound would be directed according to those curves, and Reuther didn't know if the acoustic ratings had been met until the sound engineers did their tests after joinery was completed.

Adjustments were made, including curved timber slats that were installed on each side of the balcony fronts because of a small "bounce" of noise. A section of veneer was also used in the middle of the balcony fronts, with perforations to allow sound to be absorbed.

Timber veneer on both sides of the stage was perforated and then covered with a dark stain that would absorb more sound.

Hannon says the inherent versatility in veneer allowed the ►



► design team to successfully create the challenging, complex curved theatre forms. The veneer panels were crown cut, allowing Reuther to deal with the complex curves in the joinery geometry, giving a consistent finish as the panels curved.

The timber on the twin staircases also entailed a significant amount of very detailed work. Comprising both solid timber and laminated timber, the staircases featured curved handrails, balustrades and sidewalls from the balustrades to the floor. Hand planing and sanding was required to finish each section.

The laminated balustrades also required chamfering to ensure that if a glass was placed on the balustrade rail, it would fall inward to the stairs and not outward to a floor below.

Reuther estimates there were between 12 and 15 cubic metres of American oak in the project.

"While there were a lot of things we had never done before, what we thought through and the way we went about it all worked. One of the pleasing things was that the builder was right on board with us, backed us and listened to what we were saying. So it was a team effort."

The use of American white oak veneers in the fit-out caught the eye of the Timber Veneer Association of Australia's (TVAA) Technical Representative, Peter Llewellyn.

"American white oak is available in solid timber, so the veneered surfaces blended beautifully with solid components such as stair balustrades," Llewellyn says.

The auditorium from the stage showing the balcony fronts.

Photo Chris Oaten.



Multi-award-winning project

The rebuild has won seven South Australian awards from the Australian Institute of Building, the Master Builders South Australia and the Australian Institute of Architects.

Douglas Gautier AM, Adelaide Festival Director CEO and Artistic Director, says the rebuild has great regard in every respect for the history of the theatre.

"It's one of Australia's oldest theatres, and certainly one with great stories and great artists who performed in it. The redevelopment respects all that, but at the same time it really is a theatre that is now very serviceable for the 21st century.

"It's commercially viable again at 1500 seats, and there's not a bad seat in the house."

Gautier, who chairs the Asia Pacific Art Centres Association, says Her Majesty's is acknowledged as one of the most innovative and interesting theatre developments in the Southern hemisphere.

The TVAA has a range of publications and an informative website <https://timberveneer.asn.au/> to assist specifiers. Email info@timberveneer.asn.au or call 1300 303 982 for advice on specific projects. ■

The auditorium showing panels that were stained to help with the acoustics.

Photo Chris Oaten.

