

Star City MUEF

Architectural Design Statement

The proposed Multi Use Entertainment Facility (MEUF) is located on Podium Level 04 of the existing Star City Casino complex in Pyrmont. It is to be of the highest international standards and is to be an adaptable and flexible venue capable of hosting a wide variety of different entertainment events including concerts, conferences and gala balls.

Approximately 60m by 30m, it is to be located in the same position as the existing ballroom facility and utilises much of the existing support infrastructure including kitchens, offices, stores and lobby areas.

Recent market and customer analysis by Tabcorp revealed a need for a significant new live music venue as a part of their entertainment programme.

Following a period of design feasibility, it was found that the best approach was to expand the approved ballroom design to include a taller ceiling height, allowing for international live rock concert acts to perform. In addition, it was clear that the same facility would also need to operate effectively as a ballroom and conference venue, suitable for corporate events. For the project to be economically feasible, it had to allow for 3000 seated patrons in concert mode, and 1500 people in ballroom mode.

The result was the multi-use design concept, allowing a flexible venue that could accommodate both modes quickly and efficiently with minimum turnaround times – a first for Sydney.

The existing rooftop site location was subject to a number of design constraints, all of which had to be carefully incorporated with a complex and technically challenging client brief:

- To the north there was an existing 2m deep by 24m long reinforced concrete beam that could not be moved or modified (as it was holding up the hotel tower above). To the west there were limitations with the existing hotel swimming pool and associated infrastructure.
- To the south there were a number of existing columns that could be used to support the massive weight of the facility (equivalent to a 15 storey office block) with minimal disruption to the existing levels below, including the main gaming floor and the recently completed sports bar.
- To the east, there was an existing view corridor from the neighbouring apartments that had to be maintained. The decision was made very early that this was a key consideration of the design, and that the existing expanded ballroom footprint was to be maintained with the expansion to be vertical rather than horizontal.
- Vertically, it was essential to achieve a clear internal height of 12m above the finished stage level (1.5m above floor level) plus a 3m zone of long span structure, services and acoustic roofing.

The result was fundamentally a rectangular box which, by chance, was the perfect proportion for a flexible multi-use events centre.

Considering the setting of the venue on level 3 where it can be seen from various buildings around it the external expression is an object rather than a building with walls and a roof. The geometrical shape is inspired by jewellery stone cuts, gems; the entire building becomes a consistent and simple geometrical shape on all sides – a strong and singular form within an otherwise complex development. The result of the shaping of the box is that the Visual bulk and scale is greatly reduced in comparison with a flat sheer wall, the top edges are now angled backwards to reduce effective height. The roof becomes an extension of the wall geometry and continues the design concept into a resolved three-dimensional whole.

The acoustic performance of this venue has been analysed in great detail with the intention to reduce an internal level of up to 112dba down to the existing external ambient noise level with zero noise impact upon neighbouring properties. This may be achieved through the ingenious use of a double walled envelope with a significant internal air gap. This system is being further refined in collaboration with specialist acousticians, structural engineers and facade consultants. The acoustic walls can then be independently treated with an external architectural finish that explores the possibilities of structural expression, form and artificial lighting.

Internally, these concert hall and conference fit-out is being design and developed by specialist consultants – Sceno Plus from Montreal – who have recently completed similar venues in Canada and the United States.

The Back of House areas from the existing ballroom are to be upgraded, adapted and expanded to accommodate the wider variety of uses. The existing kitchens are to be fully refurbished, and additional toilet facilities (beyond the base requires of code) are to be provided. Storage, support services and goods handling is to be located within the existing unused showroom fly-tower with direct undercover access into the rear of the auditorium. New lifts and fire stairs are also to be provided.

There are a number of complex design challenges involved with placing a venue of this quality five levels above street level, over an existing completed building. Principally, structural integration with the existing systems is a large component of the scheme with requirements for a number of transfer structures, trusses braces and cantilevers. Whilst these have been solved in principle, items will be further refined during the design development phase of the project.

In addition, internal circulation patterns have been addressed through the successful concentration of vertical escalator transportation within the central glass cone element which was a key ambition of the whole development. New escalators transport patrons from the existing level 2 lobby up to the roof top fully undercover within a new single level glass donut shaped pre-function staging area which wraps itself around the existing glass cone. There is direct access from this space into the events facility via a bank of new escalators nestled into the rear corner.

Seen as a composition, the two new primary building elements will be complementary through their contrasting materials, transparency and forms – the donut being curved, light, transparent and animated, the auditorium being solid, reflective and angular.

This venue will be a culturally significant addition to Sydney's entertainment offering as it fills a gap in the large variety in venue sizes and locations. With its state of the art technology, design and flexibility, it is anticipated to attract the best international performers and acts, bringing a new vitality to both the city of Sydney and to New South Wales.

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