

REGENT MELBOURNE



by Peter Crossley

Peter Crossley is a Systems Engineer with Lobley Treidal Davies and Partners Pty Ltd., Consulting Engineers, and for the past 15 years has been actively involved in the design of theatrically orientated projects.

His areas of expertise cover: Lighting, Sound reinforcement, Stage mechanics, Closed circuit Television systems.

Peter is currently an executive member of the AATT and an associate member of the Society of Television Lighting Directors.

FOR some time now David Bird has been at me to write a few lines about the Entertainment and Convention audio visual systems installed at the Regent Melbourne Hotel.

The Regent is Melbourne's most spectacular hotel and one of Australia's finest international standard hotels. It is located in what is known as the 'Paris' end of Collins Street and forms an integral part of a massive Business/Commercial development which occupies almost an entire city block.

Those of you who can put their hands on the December 1980 issue of 'Tabs' will observe on the front cover an aerial photograph of the Victorian Arts Centre Concert Hall and in the top right hand corner one can see the Collins Place twin towers nearing completion.

The Regent Melbourne Hotel occupies the top fifteen storeys of the uncompleted tower in the photograph, starting at the 35th floor which houses the Gallery Court and piano bar, and rising fifteen storeys with an atrium type construction to the fiftieth floor. Royal and Presidential suites.

All of the accommodation units are arranged around the perimeter of the hollow tower construction and offer spectacular views of the inner city areas and surrounding parklands.

The atrium is roofed at fifty second floor level with a space frame construction and the internal space is fully airconditioned. A series of streamer like banners are suspended from the space frame and form a ceiling canopy for the piano bar and gallery court. These banners are lit by 2kW fresnels suspended from maintenance walkways in the space frame. The walkways have clear lexan floor panels so as to minimise their unsightliness from below.

You can imagine the apprehension of the commissioning group when we discovered that some of the lexan panels are removable to facilitate re-lamping of the space frame luminaires.

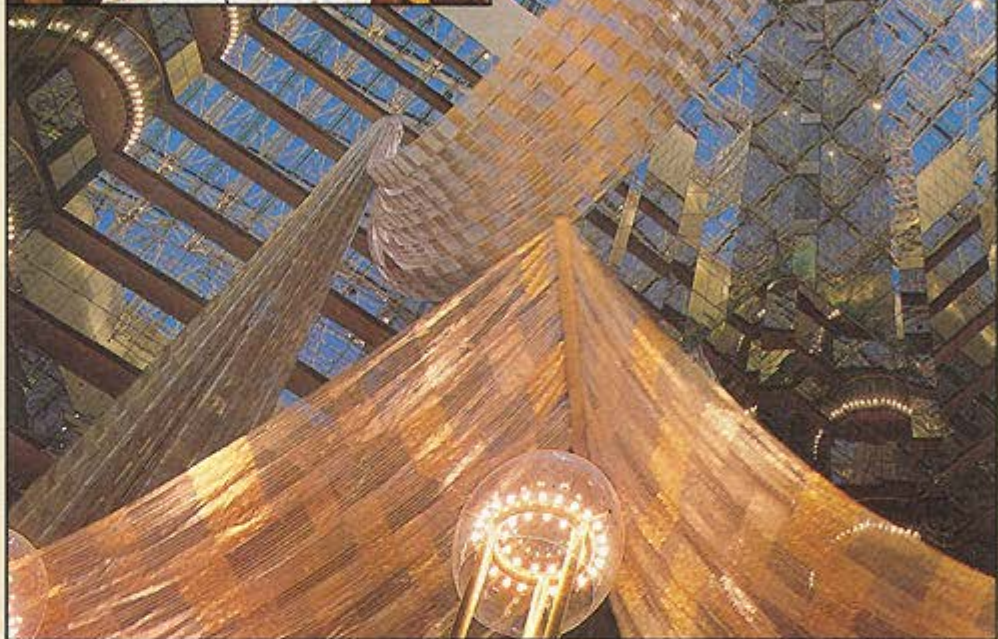
The hotel lobby, Reception and Banqueting areas are located within the base building at 1st and 2nd floor levels and are connected to the hotel accommodation tower by a bank of express elevators.

Lobley Treidal Davies and Partners Pty Ltd were the major services Consulting Engineers responsible for the Electrical, Mechanical, Automations, Security and Specialised Electrical Services design for the entire project. Design and construction was a major feat and due to industrial delays which resulted in the original developers and builders being placed in liquidation the project took ten years to complete.

During that time Australia changed over to the metric system of measurements. However, the task of modifying the existing documentation and providing new documentation in metrics was considered too daunting and the documentation proceeded in the old imperial system.

This office prepared the original briefs and estimates for what we call Specialised Electrical Services and these comprise:-

- House lighting layouts and control systems.
- Special purpose lighting (Theatrical lighting) and control system.
- Audio systems.
- Closed circuit television systems.
- Outside broadcast cabling and rigging.
- Civic/slide projection systems.



Above: The view inside the atrium.

Inset: the Grand Ballroom.

- Conference lectern system.

Specifications and drawings were prepared and tenders called for each service. Rank Strand were the successful tenderer for the House lighting and special purpose lighting control systems and the audio system.

The conference/entertainment areas comprise the east and west conference rooms, meeting rooms and associated technical service areas. A four hundred seat tiered lecturer theatre/auditorium is currently being documented for the hotel.

The east conference room is the largest, being approximately 39m by 19m (130ft by 63ft) and is provided with concealed sliding double partitions to enable the area to be subdivided into three separate and independent areas of approximately equal size or one large area. Throughout this article the three areas are referred to as areas A, B and C.

Areas A, B and C combine as one area known as the 'Grand Ballroom' and in this mode of usage the two pairs of dividing walls are fully withdrawn and concealed in special wall recesses.

The visible ceiling for the 'Grand Ballroom' comprises 741 inverted square pyramidal forms known as 'petals' and arranged in a modular pattern over the entire ceiling area. The petals are approximately 780mm (30in) square. Each petal is separated from the others by a 230mm (9in) open space which contains the outlets for all the ceiling services, i.e. luminaires, power outlets, microphone and speaker outlets, C.C.T.V. camera plug in points, air conditioning, slot diffusers, suspension points, cyclorama track, etc.

The petals are fixed to a fabricated steel framework which is suspended from the structural slab above by suspension rods containing vibration isolators. These rods pass through a second suspended ceiling which is known as the acoustic ceiling and forms the true ceiling to the space.

The ceiling petals are fabricated from sheet metal and have a laminated brass surface and are suspended approximately 5m (17ft) above floor level. The ceiling space above the petals and all ceiling supporting structure and other services contained within the ceiling space are painted matt black so that the ceiling petals appear suspended in space and become the visual ceiling to the area.

The ceiling support grid also contains a suspension system for special purpose lighting luminaires, loud

speakers, C.C.T.V. cameras, surveillance cameras, simultaneous interpretation outlets, lighting bars, banners, etc. and comprises 235 standard television studio lantern spigot sockets and dedicated patchable electrical outlets.

The lighting installation is divided into two independently supplied and controllable sections which are denoted 'House Lighting' and 'Special Purpose Lighting'.

The house lighting comprises the permanently installed dimmer controlled lighting systems and public safety lighting systems.

The special purpose lighting system comprises the permanently installed suspension system and the associated distribution and dimmer control system which is provided to enable additional 'Special Purpose' lanterns to be set up as required for particular functions.

The ceiling also contains sixty 'Altec' speakers and enclosures which form the basis of a distributed sound reinforcement system.

The 'Grand Ballroom' is fully carpeted and the walls are vibration isolated from the structure above and are surfaced with alternating 230mm (9in) wide panels of metal laminated plywood and 760mm (30in) wide panels of fabric covered acoustic absorbent material. The acoustic panels cover from above the floor services skirting duct to the chair rail and from above the chair rail to the ceiling petal line.

A continuous 450mm (18in) high, hinged lift up skirting flap conceals all the technical services. These services comprise:

- Single phase and three phase power outlets.
- Dedicated patchable special purpose lighting outlets.
- House lighting remote control plug-in points.
- Special purpose lighting control plug-in points.
- Microphone and line level balanced line plug in points.
- Talk back system outlets.
- Speaker line plug-in points.
- Lectern plug-in points.
- Slide projector slide change control plug-in points.
- Audio system remote volume control plug-in points.
- Closed circuit television plug-in points.
- Master antenna television plug-in points.
- Simultaneous interpretation system floor inductive loop terminations.