

## *Hawke's Bay Opera House Retractable Plaza Roof, Hastings*

### **BRIEF**

To work as part of a multi-discipline team to design and install a retractable roof over the already constructed Hawke's Bay Opera House plaza to create an entertainment space that was suitable for hire all year round, yet would allow advantage to be taken of the region's Mediterranean-like climate.

As one of the first of its kind in New Zealand, the team was required to develop innovative design ideas for the unique structure and its retracting mechanisms.

### **RETRACTABLE ROOF PROJECT OUTLINE**

- 35m long main truss with two support trusses 20m in length, up to 12m high above the plaza.
- Lightweight UV-filtering fabric sail covers 450m<sup>2</sup> of which approximately 315m<sup>2</sup> is moveable.

### **LHTDESIGN'S SCOPE OF WORK**

LHTDesign worked in close collaboration with Shand Shelton Architects and Project Manager of Wellington, and local firms Patton Engineering and Morgan Builders to create the roof.

Shand Shelton was responsible for the architectural concept and client brief; Patton Engineering provided documentation, implementation, transport and installation on site as well as design and construction responsibility for the mechanical components, Morgan Builders provided their experience and building expertise.

Although there was 'an eye' to the possibility of a roof when the plaza colonnade was originally considered, the design needed to work with the existing structure of the already completed plaza. It took the team six months of conceptualising different options before all parties, and in particular the Hastings District Council client, was satisfied with the aesthetics and functionality of the design and the structural and implementation issues were resolved.

LHTDesign provided specialised structural engineering services to ensure the final trusses and associated structure were not only functional and durable but most importantly, met the brief to be aesthetically-pleasing and complement the attractiveness of the revitalised cultural amenity with its heritage Opera House.

### **OUTCOME**

Opened in November 2007, the Hastings District Council is delighted with the finished result. The space is in regular demand as a unique dining and entertainment venue, with guests commenting on the pleasant ambience created.

Winner of AGENZ Merit award 2009

### **REFERENCE**

For a client's perspective on this project please contact Roger Shand of Shand Shelton. Phone: (04) 801 5170.

