

www.fabritecture.com

 **FABRITECTURE**

Fabritecture works worldwide providing **design excellence** for tensile fabric architecture.



Our award winning team, complete project management and practical solutions provide the best in **Creative Fabric Architecture**.



Fabritecture specialize in the design, manufacture and installation of tensile membrane structures of the highest quality. While being at the cutting edge of tensile membrane technology, our reputation for high achievement is recognized through Industry awards for innovation and design excellence.

Our diverse experience and flexibility in meeting client's needs is clearly what defines us. This commitment and adaptability has resulted in high profile venues and companies having entrusted us to provide practical and spectacular solutions. Our experienced team can turn your vision into a successful reality.



Building with Architectural Membrane enables the creation of tensile structures with **stunning architectural profiles.**

Architectural membranes have unique light transmitting properties that enable an open airy feeling of outdoor ambiance indoors, whilst forming distinctive and dramatic architectural focal points.

The composition of the basecloth gives the fabric its properties such as strength, stability, elongation and tear resistance, while the characteristics of the coating and varnishes applied to the basecloth lead to superior fire resistance, UV resistance and colour fastness.

Commonly used fabrics are:

PVC (Poly Vinyl Chloride) Membrane

- PVC coating over polyester basecloth
- Most cost effective and common material choice
- Available in a variety of colours
- Recyclable
- Life expectancy in excess of 20 years

PTFE (Poly Tetra Fluoro Ethylene)

- Teflon coating over woven fibreglass fibres, self cleaning
- High quality material for permanent applications
- UV resistant, non-combustible and highly reflective
- Life expectancy in excess of 30 years

ETFE (Ethylene Tetrafluoroethylene)

- Transparent polymer used instead of glass
- Transmits more light and insulates better
- Is 30-40 times lighter than glass
- Nonstick surface that resists dirt
- Expected to last as long as 50 years

HDPE (Shadecloth)

- UV protection
- Superior strength
- Self cleaning, mildew and mould resistant



By using lightweight building solutions to reduce energy consumption, Fabritecture embrace a greener environment.



Sustainable Design

Architectural tensile structures are an environmentally perceptive medium that use minimal materials to enclose large spaces, while being an inexpensive way to create a natural building form with beautiful aesthetic qualities. Maximising natural energy through the use of translucent fabrics reduces the need for lighting in daylight hours. When

managing cost efficiencies through building with prefabricated lightweight components, there is no onsite engineering or fabrication, enabling faster build times and simplicity of installation. Using these recyclable building solutions, impact on the environment is minimised, proving architectural tensile structures are a fine example of sustainable design.

Expert Project Management

Fabritecture's unique design and problem solving approach, focuses on the special requirements of our clients. We offer complete turnkey packages from inception and design to fabrication, installation and after sales services. Fabritecture will supply you the highest quality installation possible, while being economically viable, installed professionally and on time.



BRISBANE STATE TENNIS CENTRE



THE PROJECT

The brief was to provide weather protection to championship size show courts and meet international tennis standards. Fabritecture designed the structures to be clearspan in both directions to allow unobstructed viewing while remaining in harmony with the main stadium. The final design consisted of two identical turtle back shaped canopies, fully framed with CHS curved arches, edge beams and integrated support trusses held up by only one column in each corner. Each structure is clad in perfectly tensioned PTFE Membrane patterned and fabricated into one piece per structure. In addition 21 Hypar spectator structures were commissioned.

Client	Mirvac
Location	Tennyson, Brisbane Australia
Building Type	Custom design and construct Architectural Membrane + 21 Hypar Spectator structures
Size	2200m ²
Frame	Lightweight steel frame 3 Coat Paint System
Fabric	PTFE
Design Features	Full perimeter custom gutter system, concealed within the 4 corner columns Custom structural lighting brackets Integrated electrical wiring

SYDNEY WILDLIFE WORLD



THE PROJECT – AWARD WINNER

Located on the eastern side of Darling Harbour – Sydney Wildlife World adds an iconic landmark to the Darling Harbour foreshore. The unique design inspired from the skeletal frame of a python needed to accommodate nine ecosystems simulated within the facility, at the same time allowing visitors to be completely immersed in the exhibits. The final award winning design showcases an elegantly curved mesh roof, supported by curved steel arches, creating an imaginative, exciting and attractive addition to Sydney's foreshore, while providing a natural, functional home to Australia's unique wildlife.

Client	Sydney Aquarium
Location	Darling Harbour, Sydney Australia
Building Type	Custom design and construct stainless Mesh roof for Urban Zoo
Size	4000m ²
Frame	Lightweight steel frame Hot dip galvanized and coated
Fabric	Mesh Shell: 316 Stainless Steel Zoomesh
Design Features	Custom aluminium extrusion and fittings Fully pattern mesh shape 35 unique steel arches Stainless steel cable net support for steel frame

LUNA PARK SYDNEY BIG TOP

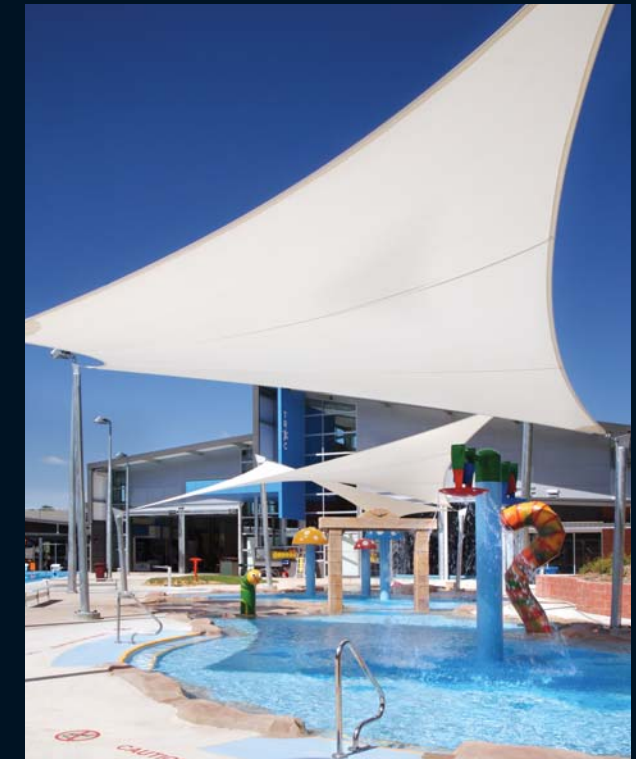


THE PROJECT

When the iconic Luna Park underwent a major redevelopment, the brief called for concept design of a unique multi-use special events entertainment centre, keeping with the existing fun carnival atmosphere. The result is a spectacular traditional circus style tent facade. The Luna Park Big Top Auditorium boasts the latest acoustic design, which delivers crystal clear sound and amazing lighting. While the structures high ceilings and clear span widths are ideal for a myriad of set up options such as, blue screens, lighting rigs, special events, corporate functions or any other imaginable use. Fabritecture were also commissioned to design and construct tension membrane shade structures throughout the park including a canopy cover over a heritage listed carousel.

Client	Luna Park
Location	Sydney Harbour, Australia
Building Type	Custom design and construct
Size	2020m ²
Frame	Structural hot dip galvanized steel frame
Fabric	PVC Polyester
Design Features	Themed externally (Traditional Circus Style) Acoustic / 2hr Fire doors and air locks Built to achieved STC 50 rating Acoustic ceiling lower and upper layer A total 64 tonne rigging capacity - 8 trusses Themed awnings & foyer structures Suspended plant room / Glass facades

TWEED REGIONAL AQUATIC CENTRE



THE PROJECT

The brief from the client was to design, supply and install a suspended ceiling, grandstand canopy, leisure pool sails and image screens. Proposed for the interior ceiling and image screens was the use of Batyline, an innovative internal ceiling solution that assists in increasing acoustic absorption through the specially developed fabric. The final result is spectacular, the suspended membrane ceiling is not only functional but also provides an aesthetic look, that will retain its good looks over time while being easy to maintain.

Client	Multispan
Location	Murwillumbah, Northern NSW Australia
Building Type	Custom Design Tensile Structure - Grandstand Internal Ceiling / Image Screens / Leisure Pool Sails
Size	Internal Ceiling 1000m ² Grandstand 286m ² Image Screens 42m ²
Frame	Structural steel - hot dip galvanised
Fabric	Ferrari Batyline - Internal ceiling and image screens PVC Polyester - Grandstand Commercial Shadecloth - Leisure pool sails
Design Features	Innovative internal ceiling Acoustic qualities / First time used in Australia

JIRRAWUN ARTS STUDIO



THE PROJECT

Based in one of the most severe climatic ranges in Australia, the remote Kimberley region in Far North Western Australia, local indigenous artists required a studio to both work in and display their art. The brief was a complete turn key operation, starting with design, excavations and foundations, steel frame, Bondor internal ceiling and walling system, APAC cooling system and a patterned tension membrane outer shell. Jirrawun Arts Studio provides indigenous Artists with an excellent working environment within a new generation of permanent fabric structure solutions. Engineered to extreme local climatic variations, the studio is striking in contrast to the surrounding landscapes.

Client	Jirrawun Arts
Location	Wyndham, The Kimberleys WA Australia
Building Type	Custom steel fabric structure
Size	375m ²
Frame	Structural Steel - Coating with inorganic zinc paint
Fabric	PVC Polyester
Design Features	50mm thick Bondor lining system for insulation Large hoods over the gable ends creating a stunning covered entry at both ends of the structure Frameless glass entry doors Fully ducted air conditioning system Cyclonic engineering rating

CANBERRA OLYMPIC POOL



THE PROJECT

The brief was to dismantle and recycle the existing inflatable air bubble (insert) and provide a replacement structure with enhanced performance, by reducing running costs and creating a better internal environment. The replacement structure was designed with a special 3 coat high build paint system to avoid corrosion in the harsh aquatic environment. Unique features include an external and internal liner fabric system, providing an insulation air gap that is mechanically ventilated with either warm or cool air to increase thermal control. The clients expectations were well exceeded with innovative design elements that have dramatically reduced running cost, while translucent fabric allows ample natural daylight.

Client	Department of Territory & Municipal Services
Location	Canberra ACT, Australia
Building Type	Custom design and construct Sporthall
Size	1800m ²
Frame	Lightweight structural steel frame 3 coat paint system
Fabric	PVC Polyester exterior & inner liner
Design Features	Mesh vents along the outer & Inner membrane for Air & moisture release Retractable curtain system Glass mechanical double sliding doors Integrated electrical wiring Texyloop process used

BAKERSFIELD BUSINESS CONFERENCE



THE PROJECT

In 2001 The Bakersfield Business Conference had outgrown its tented site for its annual conference and Fabritecture was presented with a brief to design and fabricate a massive modular structure with a 97m clearspan width, 25m height and 125m length. More challenging was the need to construct the structure on grass without footings and be cost effectively erected and dismantled annually for the one day event. Fabritecture not only successfully met the clients' needs but has since been commissioned to build a second structure for a major environmental remediation project in Chicago.

Client	Bakersfield Business Conference
Location	Bakersfield USA
Building Type	Steel frame fabric structure
Size	11,155m ²
Frame	Structural hot dip galvanized steel frame
Fabric	PVC Polyester
Design Features	Sidewalls open and closing options available Seating capacity up to 10,000

DUGONG'S AT MERMAID LAGOON




THE PROJECT

The brief was to cover the entire floating exhibit pool with shade cloth, whilst maintaining an open feel using a similar curved design to the main Sydney Wildlife World roof structure. The design posed unique challenges for surveying and installation, with no access for cranes or equipment. Each component of the structure had to be designed for manual handling. To overcome these issues, we used two deployment cables running the length of the structure. The assembled arches were fixed to the deployment cables via chain and pulleys then moved into position over the pool. The final lightweight structure was fabricated in shade cloth and is supported by a complex grid of cables and customised components.

Client	Sydney Aquarium
Location	Darling Harbour, Sydney Australia
Building Type	Custom design and construct
Size	560m ²
Frame	Structural Aluminium
Fabric	Shade cloth
Design Features	Cable arch design Complex grid of cables Customised components





Fabritecture has the design solution, technology and expertise to make
your project outstanding.

Sydney Wildlife World | Sydney

'The Fabritecture people were fantastic. They understood the simplicity of the structure and the parabolic curve, which needed to be braced naturally. Jethro Jones and his team were the key to realising the simplicity of the structure'.

Misho, Architect

Luna Park | Sydney

'The professionalism, project management, adaptability and commitment of the Fabritecture team made our project a success. The wealth of knowledge and pragmatism of the team made working with Fabritecture a pleasure. We are more than impressed with the results from these projects and hope that any future developments at our park are as successful as this.'

Peter Hearne, Managing Director

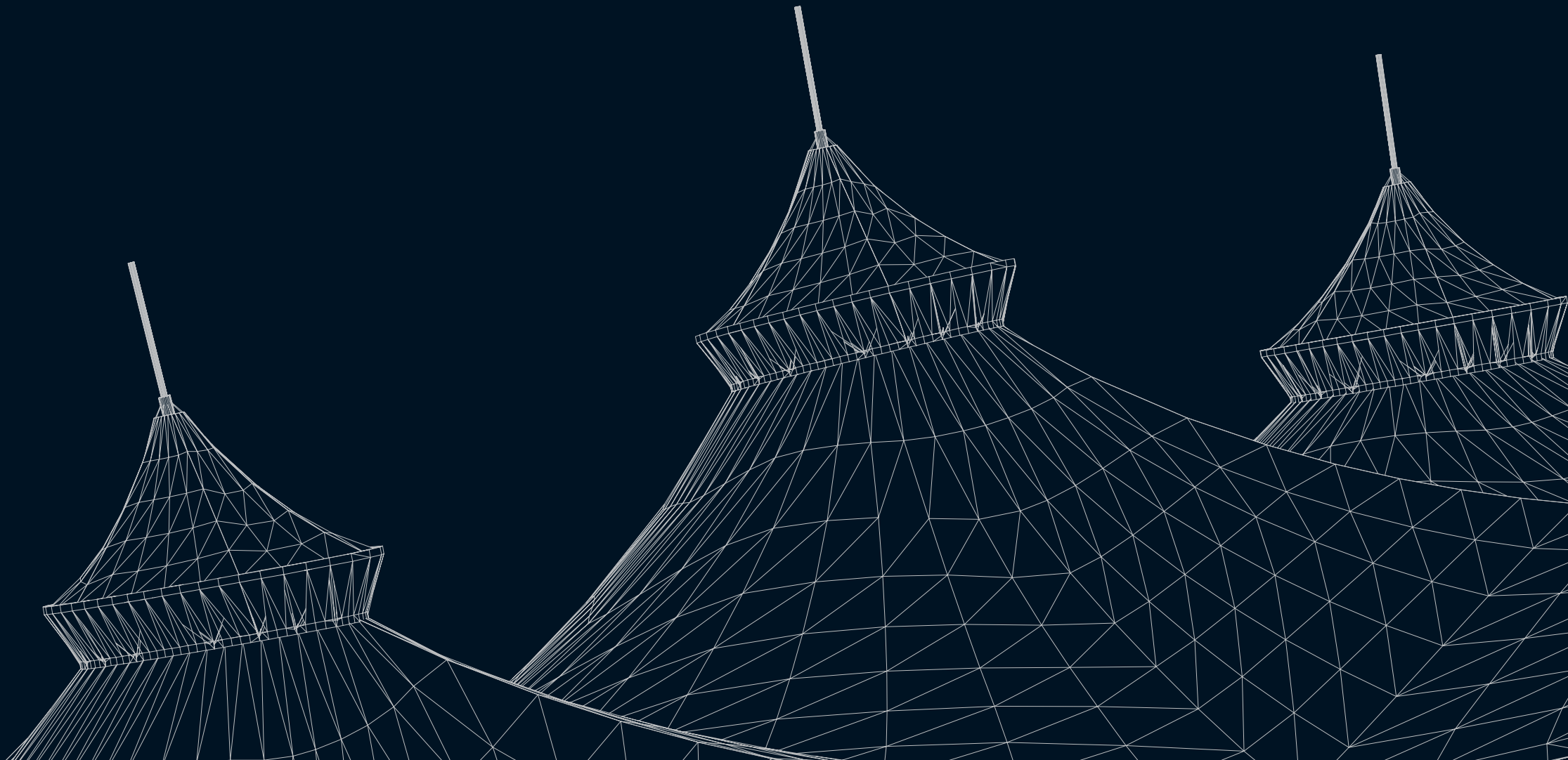
Dugongs at Mermaid Lagoon | Sydney

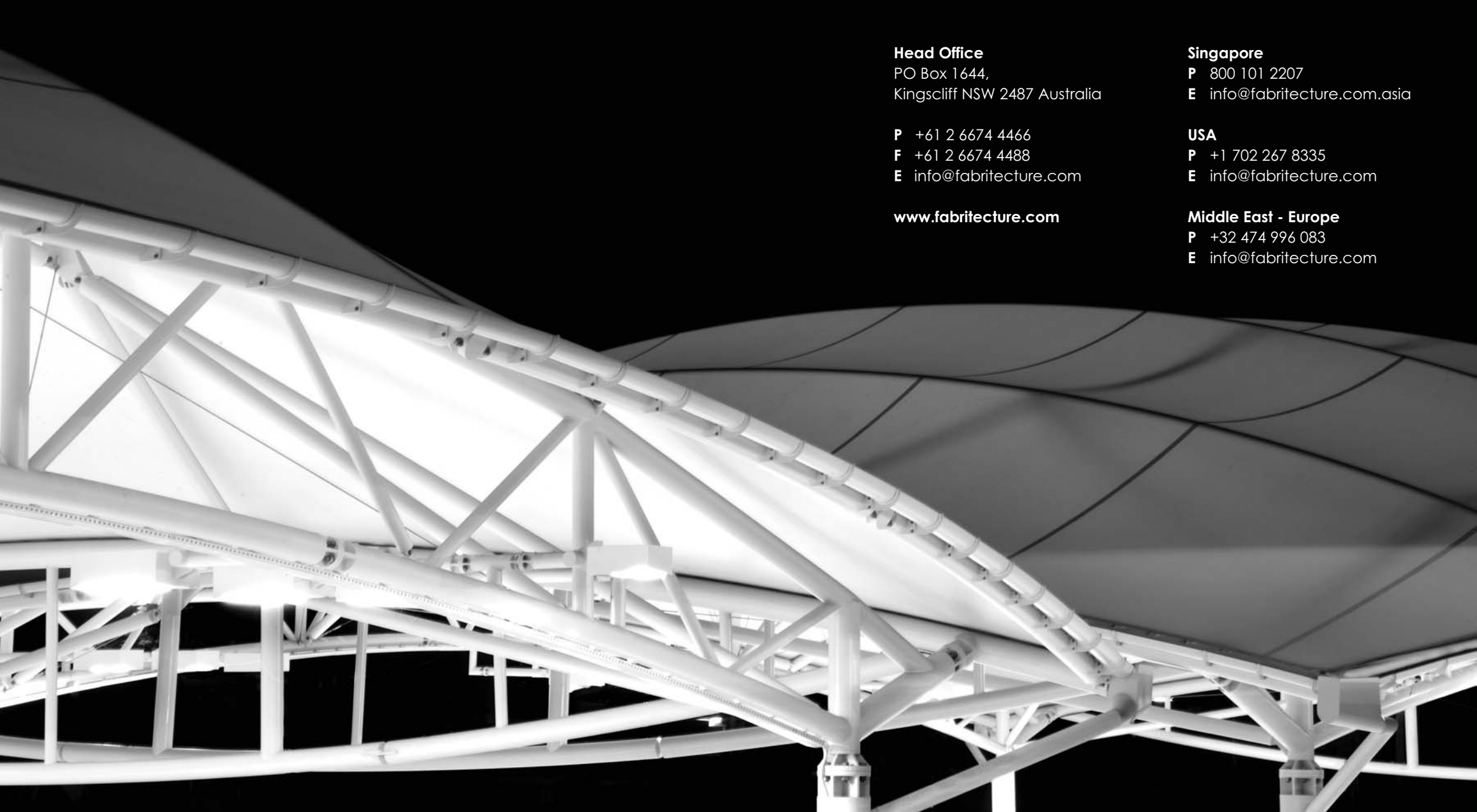
We would like to express our sincere thanks for the work Fabritecture have done in building our newest attraction – Dugongs at Mermaid Lagoon. This is truly a world class attraction and the feedback we have received from guests, staff and media has been excellent. We know that the project was challenging and the work you have completed has been invaluable to the achievement of the success of the exhibit. You should be extremely proud of your contribution because what has been built is truly unique in the world today.

*Kevin Bush, Chief Executive Officer,
Attractions Group*

*John Harnden OA, Chief Executive Officer,
Village Roadshow International Theme Parks*

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