greenline

Case Study

Aquinas Catholic College (Menai, NSW)

Brief

The existing fabric structure at Aquinas College had problematic 'waterproof' shade fabric (pictured below). The fabric had the weight and tension of shade cloth but with a waterproof coating. It was sewn, which meant it had holes in the seams (causing leaks), and also it needed to be installed in a particular way to avoid UV damage to the laminated coating. Unfortunately, this trapped water in the shade cloth and led to very rapid build-up of mould. The college needed a design and construct partner who could remove the existing structure and replace it with a correctly engineered waterproof structure.

Challenges

As the existing structure had been engineered for shade fabric only (not waterproof PVC), it needed to be removed. However, the structure was located in a courtyard surrounded by buildings, and this meant very tight access for machinery, and limited working space. On top of this, the footings hit rock and larger equipment was needed to drill through.

Approach

We designed and built a new waterproof structure covering the same footprint but with a suitably engineered frame and proper PVC waterproof membrane. To overcome the access issue, the team craned the existing structure out, the rock coring machine in, and then the new structure – all over the top of the existing two-story school buildings.

Client:
Aquinas Catholic College

Structure:
Hip Structure

Area Covered:
Courtyard

Size:
22m x 22m on 6 posts

Steel Finish:
Colorbond Surfmist

Fabric Cover :
FR900-N, White

greenline

Outcome

The college now has a low maintenance structure which provides a light and bright courtyard giving the college a waterproof, sunsafe facility that is usable all year round. The structure doesn't require any artificial lighting during the day, due to the use of PVC Fabric which allows around 9% light transmission. The outcome is a healthier, safer, and more attractive courtyard!