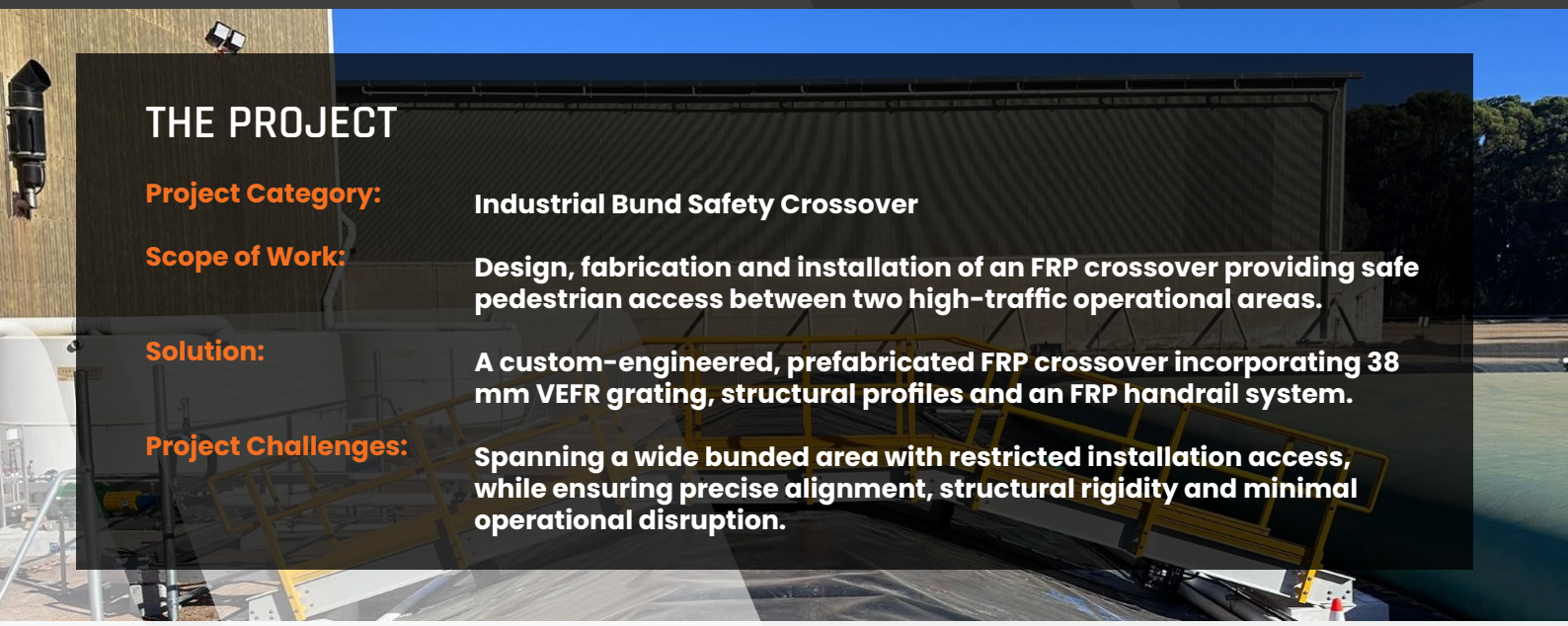
FRP ENGINEERING

CASE STUDY

BRIDGING THE GAP WITH ENGINEERED FRP

A custom-engineered FRP bund crossover delivering safer, more efficient pedestrian access at a fertiliser processing facility.



THE PROJECT

Project Category: Industrial Bund Safety Crossover

Scope of Work: Design, fabrication and installation of an FRP crossover providing safe pedestrian access between two high-traffic operational areas.

Solution: A custom-engineered, prefabricated FRP crossover incorporating 38 mm VEFR grating, structural profiles and an FRP handrail system.

Project Challenges: Spanning a wide bunded area with restricted installation access, while ensuring precise alignment, structural rigidity and minimal operational disruption.

THE SOLUTION:

A fertiliser processing facility in Albany required a safe and efficient crossing between two high-traffic operational areas separated by a large bund. Employees previously had to walk around the bund perimeter, adding unnecessary time to daily operations.

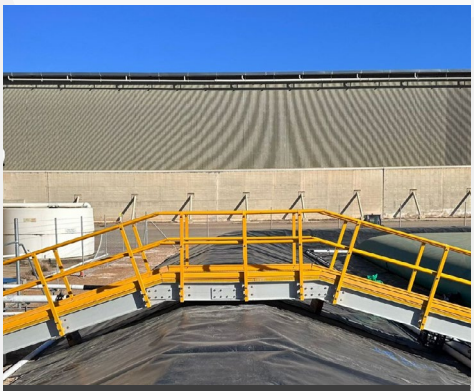
FRP Engineering designed and prefabricated a lightweight, structurally rigid FRP crossover that could be crane-lifted into position as a single structure. Detailed site measurements and precise offsite fabrication enabled installation in just one day, without disrupting plant operations.

BEFORE FRP:

Restricted Access | Inefficient Pedestrian Movement

AFTER FRP:

Improved Access and Safety



Efficient Installation | Minimal Disruption

FRP ENGINEERING

INDUSTRIAL BUND SAFETY CROSSOVER

CASE STUDY

THE FRP APPROACH:

Site Assessment & Design

Detailed site measurements and engineering drawings developed to ensure accurate alignment with prepared concrete plinths and address AS 1657:2019 requirements.

Offsite Fabrication

FRP grating, structural profiles and handrails prefabricated to precise specifications, minimising onsite cutting, sealing and assembly.

Single- Lift Installation

The lightweight, rigid crossover was crane-lifted into position as one complete structure, with installation completed in just one day.

Final Inspection & Handover

The completed crossover provided a safe, practical pedestrian connection between two key operational areas.

THE FRP RESULT

Improved Safety

A dedicated crossover provides safer pedestrian movement between two high-traffic areas of the facility.

Faster Installation

Detailed planning and offsite prefabrication enabled installation to be completed in just one day.

Minimal Disruption

The single-lift installation was completed without interrupting plant operations.

Improved Operational Efficiency

Employees can now move directly between key operational areas without navigating the bund perimeter.

Lightweight, Durable Construction

FRP grating and structural profiles provide a lightweight, structurally rigid access solution suited to the facility's operational requirements.

FRP PRODUCTS USED:

- 38 mm VEFR FRP Grating
- FRP P Clamp Handrail System
- FRP Structural Profiles
- Custom Prefabricated FRP Crossover Structure

CONTACT US

For more information on our range, email us on enquiries@frpengineering.net or call us at (08) 9455 4343 to discover our range today!