



Niddrie Primary School Ramp and Walkway

VSBA Compliant

Project Overview

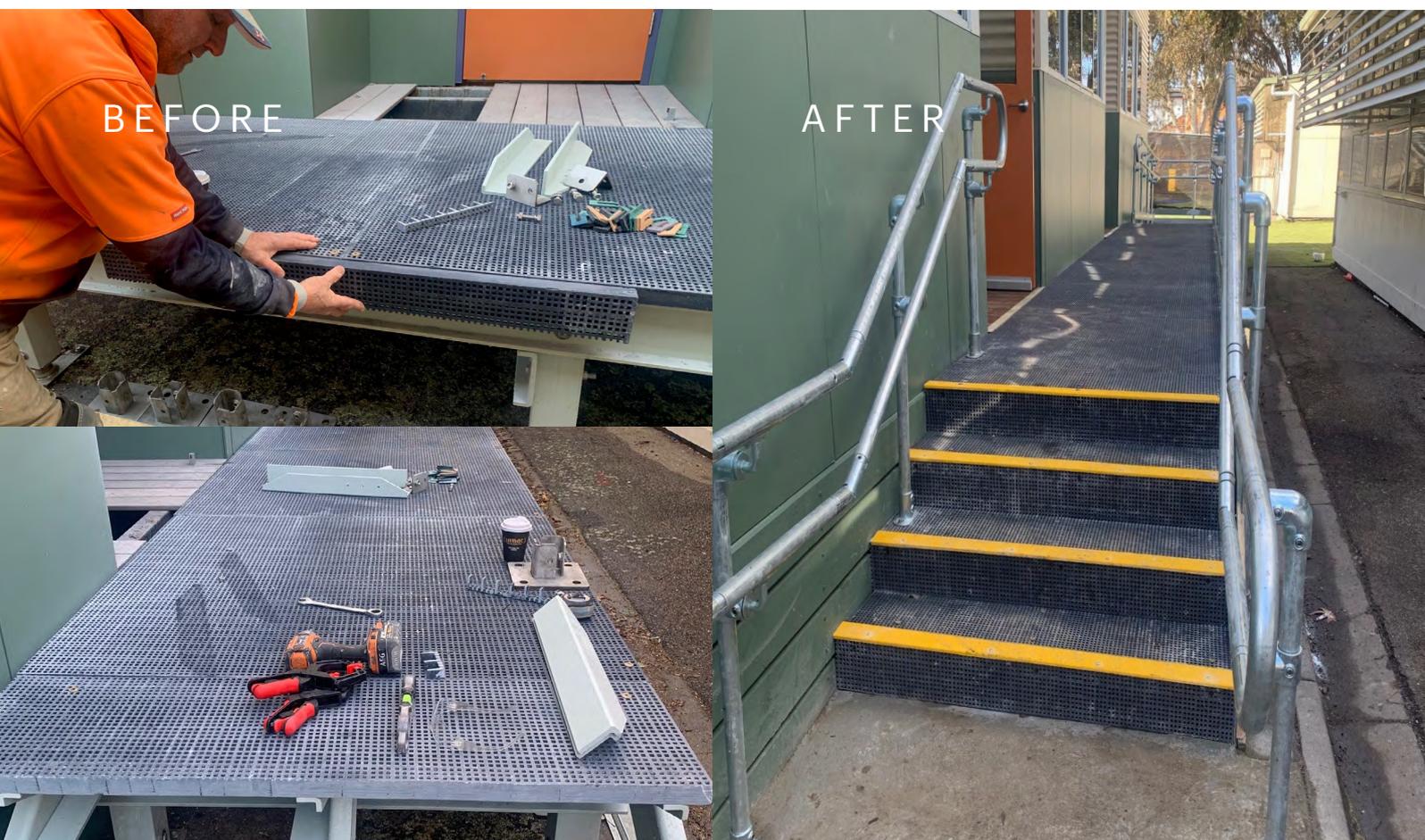
The addition of two new modular buildings required coordinated installation of compliant access ramps, stairs and walkways.

Need

- Safe, durable, non-slip ramps, stairs and walkway, compliant with VSBA requirements.
- Low-maintenance , cost-effective materials to reduce lifecycle costs.
- Efficient design, supply and installation methods to minimise disruption.

Scope

Design, supply and partner installation of an engineered composite access solution resolving time and space constraints and compliant with Australian Standards and VSBA requirements in coordination with modular buildings installation during School holiday maintenance window.



Solution

Terra Firma FRP Design, Engineering, Supply & Partner Installation

Design & Material Specification

- The Terra Firma Design Team worked with stakeholders to engineer a semi-assembled, VSBA compliant, long-life access solution compatible with tight time-frames and limited physical access between two newly installed modular buildings.
- Materials were specified to meet relevant Australian Standards for pedestrian access structures and ramps (AS1657, AS1170, AS1428)
- FRP Moulded Mini Mesh Decking (RAL7015), FRP structural Profiles, Terra Firma Ramps and Modular Stairs were selected for their ease of installation, superior corrosion resistance, strength-to weight ratio and P5 slip resistance rating.
- Specifications included UV-stabilised FRP grating and profiles to ensure long-term performance with minimal maintenance, adjustable footings for ease of installation and to accommodate future settling of the modular structures with minimal disruption.

On-Site Installation

- An experienced Terra Firma Installation Partner received the semi-assembled components to site and worked to ensure timely installation and integration with existing structures.
- Installation methods ensured the structure met safety compliances while maintaining aesthetic integration with the surrounding environment.

Materials Used

- TF FRP Ramps: Designed and engineered to meet VSBA requirements. Flexible delivery configurations.
- TF FRP Stairs: Flat packed, semi- or fully-assembled options.
- TF FRP Moulded Mini Mesh (RAL 7015): Provided safe, anti-slip pedestrian surfaces with proven durability in high-traffic environments.
- TF Structural Profiles: Used for substructure, replacing need for timber substructure with lightweight, high-strength, corrosion-proof alternatives.





Outcomes and Benefits

- A safe, durable and low-maintenance access solution for high-traffic use.
- Reduced lifecycle costs compared to traditional timber, with ROI analysis showing 30-40% savings over the asset life.
- Quick and easy installation completed within School Holiday closure window.



ROI Comparison

Outdoor Access Structures

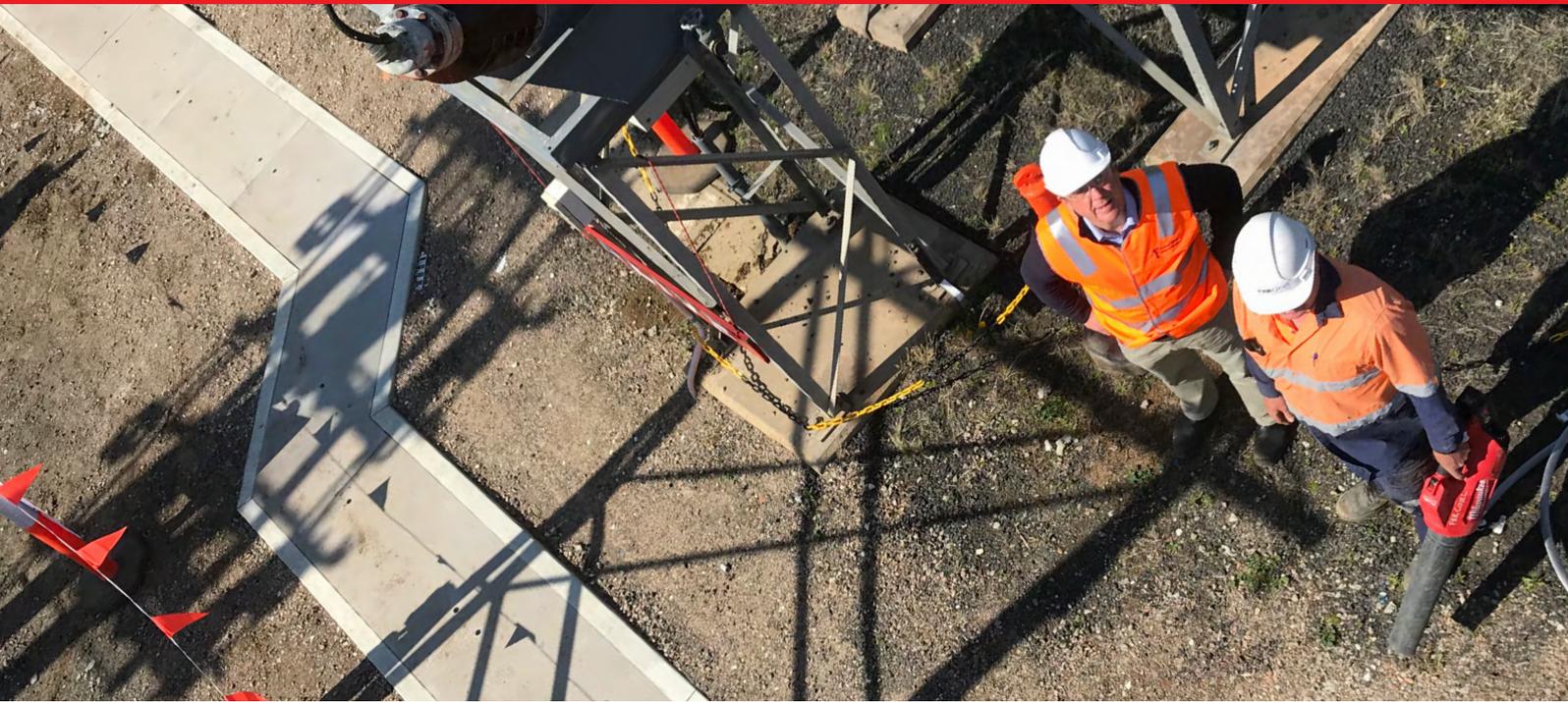
Criteria	Terra Firma FRP Ramps	Steel Ramps	Timber Ramps
CapEx / Installed Cost	Lower – prefabricated FRP profiles, lightweight handling, no welding/painting; 15% savings on prelims/site works	High – heavy crantage, fabrication, coatings; more prelims	Low upfront material cost, but on-site fabrication driving higher installation costs
Installation Time	Faster – modular panels, hand-tool cutting, no cranes; saves 20–25% time	Slower – welding, crantage, surface coating, weather delays	Slow on-site fabrication, requiring skilled carpenters and trades
Lifecycle Costs (20 yrs)	Lowest – no rot, no corrosion, minimal maintenance; 30–40% lifecycle savings	High – corrosion, repainting, recoating; replacement at ~15 yrs	Very high – rot, insect attack, splintering; major replacements every 7–10 yrs
Health & Safety	Safest – up to 70% lighter, reduced manual handling risks, slip-resistant surface	Heavy lifting risks, crane dependency, hot works	Splinters, rot, slip risk when wet; manual handling issues
Whole-of-Life ROI	Strong – NPV positive, ROI 25–30% better over life of asset	Negative – lifecycle costs erode upfront spend	Negative – low upfront, but poor durability leads to very high lifecycle costs

*ROI measured as average over 3 access projects by TF Installation Partner compared to traditional methods and materials



About Terra Firma Industries

At Terra Firma, we imagine infrastructure differently.



Imagine halving time to deploy,
Imagine lowering capital costs by up to 60%,
Imagine infrastructure that lasts up to 10 times longer
across its whole-of-life,
Imagine reducing OH&S incidents 200 fold versus
traditional alternatives.

For over 30 years Terra Firma have led the transition
from heavy, traditional materials to create the solution
category for smarter, safer and more sustainable pit
lid, access cover and FRP grating solutions based on
composite designs.

Take a look next time you're walking past your favourite
restaurant, enjoying the scenery in your local park,

launching a boat at your marina, refuelling your car at
the local service station or performing a maintenance call
at your water of energy utility, with hundreds of locations
and thousands of deployments, chances are you will see
Terra Firma in action.

From custom designs to pre-engineered solutions,
our dedicated team provide you the tools, expertise
and support to help engineers, project managers and
operators reduce costs, save time and lower OH&S risk.
We're not just supplying advanced materials and
technologies – at Terra Firma we're setting the standards
for how they will be deployed into the future.





Terra
Firma™

Phone: 1800 PIT LID (1800 748 543)

Email: info@tfpl.com.au

139 Somerset Rd,
Campbellfield Victoria 3061 Australia

terrafirmaindustries.com.au