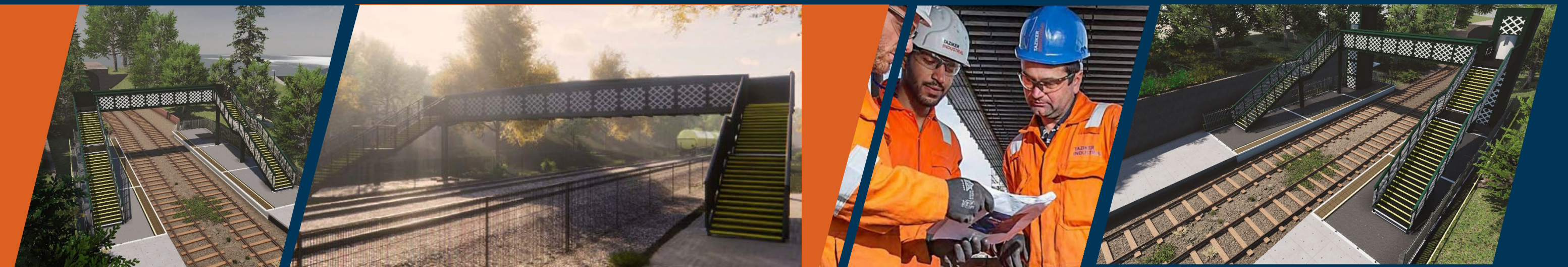


# THE LEGACY FRP FOOTBRIDGE

## and AFA Modular Lift Units



### Contact:

0344 8800 385  
sales@taziker.com  
taziker.com

### Support Services:

Levens House  
Ackhurst Business Park  
Foxhole Road  
Chorley  
PR7 1NY

### Taziker Scotland:

Transfer House  
65 Rankine Avenue  
Scottish Enterprise Technology Park  
East Kilbride  
G75 0QF



DDA



# Contents

Introduction	3	Aesthetics and quality assured	16
The Challenges	4	What is FRP?	17
The Solution	6	Why choose pultruded FRP?	18
FRP Legacy Footbridge Proof of concept	8	Legacy Footbridge Technical specification	19
Quality, value and style	9	Legacy AFA FRP Footbridge	24
Cut cost and harness technology	10	Access for all	26
Flexibility to fit any location	11	Taziker- the multi-disciplinary engineering specialists	28
Time-saving innovations	12	Affordable, accessible and sustainable	30
Sustainability	13		
Reduced carbon footprint	14	The solution you need	31
Built to last	15		

# Introduction

Taziker have been working for the past 50 years to protect the future of the UK’s infrastructure. In that time, we’ve built our team and grown our services to deliver consistent engineering excellence across a range of sectors for an impressive list of major clients. You can trust Taziker to create innovative and cost-effective solutions for protective coatings, fabrication and encapsulation, even in the most challenging environments.

Utilising our direct workforce to provide efficiency

Founded by Tom Taziker as T. Taziker & Co, a commercial painting company undertaking decorative works, the company diversified its offering throughout . Throughout the 70’s and 80’s the company diversified taking on more industrial projects; notably the Tyne Bridge and the Menai and Britannia bridges.

In 1994 Taziker Industrial was established and the company began to expand, offering our core services of surface preparation and painting nationwide. Following a comprehensive assurance process we were awarded a licence to work directly for Network Rail in 2006.

In 2007, the decision was made to focus on the multi-disciplinary structural refurbishment offering

of Taziker. We began the process of expanding our services and we acquired two specialist scaffolding contractors in Network Scaffolding and Project Scaffolding and founded an internal steelwork fabrication and repair division.

In 2020 we renamed and rebranded as simply just ‘Taziker’, reflecting the evolution of our business into a multi-discipline construction and engineering contractor:

- Infrastructure Division
- On-site Engineering Services
- Engineering Solutions
- Network Scaffolding
- Industrial Services Division





# The Challenges:

## Pedestrian Rail Crossings are not safe

People are dying on our railway lines every year due to lack of footbridges.

There is an ongoing issue with lack of footbridges on the UK rail network.

This is leading to unnecessary injuries and loss of life.

## The network lacks accessible footbridges

Accessible footbridges, with lifts, are prohibitively expensive and complex to install, leaving many passengers struggling.

## Current concrete and steel bridges are not sustainable

Building new footbridges with concrete or steel does not meet Network Rail's high sustainability standards and goals for decarbonisation.

### Teen killed on track where footbridge promised for 20 years.

Evie Wright's family described her as a 'typical teenager' who was 'happy' and 'loved life'.



Evie Wright died at the Corondale crossing in Weston-super-Mare.

A popular schoolgirl died after being hit by a train on a level crossing just yards away from where a footbridge has been planned for two decades. Evie Wright, 15, was walking home to Kemp Way in Weston-Super-Mare on March 6, 2018, when she stepped out on to the Corondale Road crossing. Train driver Simon Knight

slammed on the emergency brake but tragically could not avoid hitting the much-loved teenager.

Today (February 14) an inquest into Evie's death at Avon Coroners Court heard she died of multiple injuries.

The Worle School pupil loved sports and was described as a happy, loving girl and a 'typical teenager', playing music, and always dancing around the house.

**Family pays heartbreaking tribute to 15-year-old Evie, killed by train**

There is a clear need for more footbridges, So why aren't more being built?

Current footbridge designs are:

- Expensive to commission
- Disruptive to build
- Costly to maintain
- Need regular painting
- Subject to rust and rot
- Not built to last
- Do not offer access for all

Taziker set about changing this, with a low-cost, easy to install, maintenance-free footbridge solution that will:




- Save time and money
- Provide access for all
- Cut Network Rail's carbon footprint
- Save lives





# The Solution:

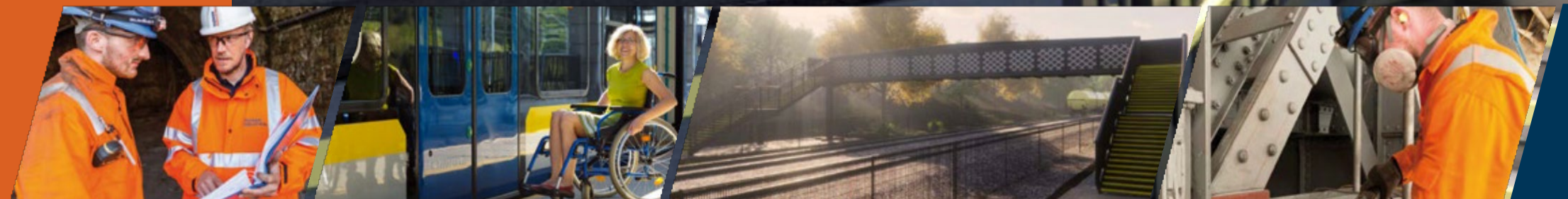
## Taziker has designed an affordable alternative

-  Taziker are a leading multidisciplinary engineering company with extensive experience in FRP.
-  FRP is already used in footbridges across the network, but we wanted to find a way to make it quicker and easier to install, cutting costs for Network Rail and reducing disruption for passengers and freight.
-  The result is the Legacy FRP Footbridge and Legacy AFA FRP Footbridge - putting passengers first.

The Legacy FRP footbridge meets all the requirements for an affordable, deliverable footbridge for the UK rail network.

- Cost-effective
- Flexible, modular design
- Quick to install in just days
- Environmentally sustainable
- Long lasting with low maintenance
- A traditional aesthetic
- Non-conductive for use with OLE
- The Legacy Footbridge is also available as an AFA Footbridge with easy to install modular lift units.

"Taziker create Innovative access design solutions that are key to putting passengers first"





# FRP footbridge - proof of concept

Taziker's proof of concept project was to design and manufacture a Modular FRP Footbridge using standard pultruded sections that were readily available.

This project successfully demonstrated:

- The achievement of the required structural capacity
- Modular construction using standardised components
- Swift installation using just 2 operatives

- A comfortable experience for the end user
  - Significant costs savings in comparison to steel
- Having proved our concept, we began the design of our 'Legacy FRP Footbridge' to develop our offering further, adding an increased aesthetic element.



Trial Assembly of Prototype Footbridge



Stage 1: Assembly of 6m section



Stage 2: Continued assembly of 6m section



Stage 3: Complete assembly of 6m section



Stage 4: Addition of 2.68m section



Stage 5: Addition of 4.025m section



Stage 6: Addition of deck panels

# The Legacy FRP Footbridge - quality, value and style

The Legacy FRP Footbridge has been developed based on three Core objectives:

**1. QUALITY** – The FRP footbridge is constructed from the best quality materials that are UK sourced, and manufactured to the highest of standards.

**2. VALUE** – Achieving the best value for money. Our goal is to be able to supply 2 or even 3 bridges to Network Rail for what that they are currently paying for one.

**3. STYLE** – The FRP footbridge must have an aesthetic appearance that will sit comfortably within a range of surroundings, such as rural locations, town centres and historic stations.





# The Legacy FRP Footbridge -

## Cuts manufacturing costs

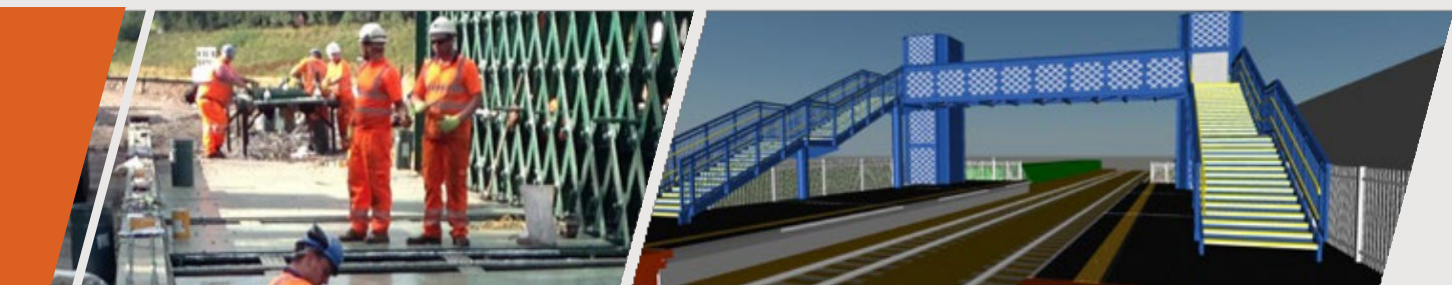
Pultruded sections can be mass-produced cost-effectively, delivering significant savings compared to moulded alternatives.

### The high cost of moulded parts:

- Moulded FRP parts need an individual mould for each item required and can only be moulded one at a time, adding time and cost to the process.
- These moulds also need to be manufactured, maintained and stored, adding further costs.

### The value of pultruded sections:

- Pultruded sections are manufactured in bulk quantities with all materials cut and drilled by CNC equipment, guaranteeing both accuracy and speed of manufacture.
- The resulting components can easily be stacked and stored ready for use in the same way as steel structural sections would be.



## Harnesses the latest technology

The Legacy FRP footbridge uses the latest technology to cut manufacturing times and reduce overall costs

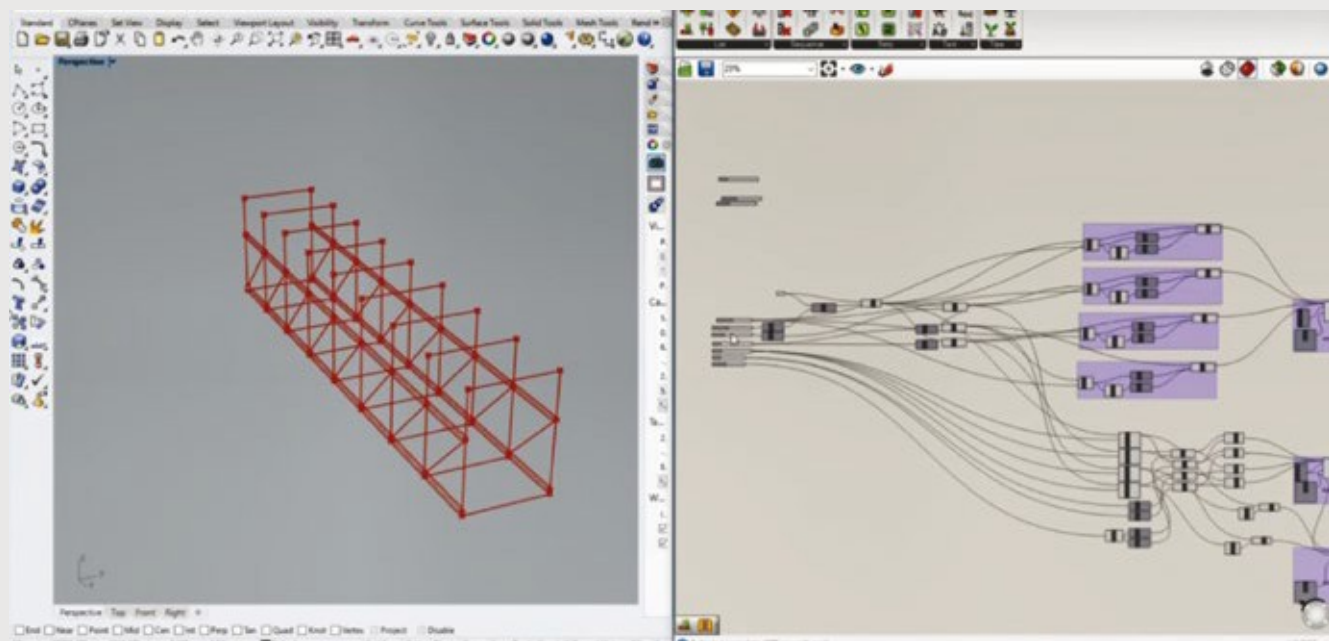
All of the general arrangement drawings, fabrication details and NC data are produced using TEKLA Structures 3D Modelling Package.

By utilising the add-on software packages, Rhino and Grasshopper, we are able to produce a simplified

model that can be adjusted in length and width, with this altered information then automatically fed into the TEKLA 3D Model.

This results in a modular design for the FRP bridge that covers a range of bridge lengths.

The use of this technology will reduce detailing costs by over 75%.

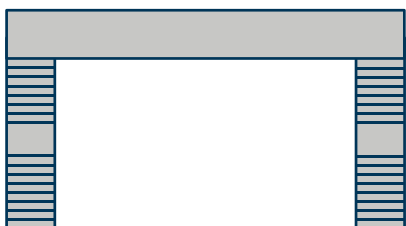


# Flexibility to fit any location

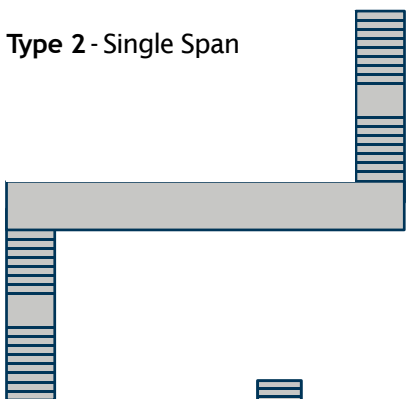
The Legacy FRP footbridge design allows total flexibility and practically to suit any required layout.

Two design ranges allow for 12m to 20m Single Spans and 21m to 35m spans

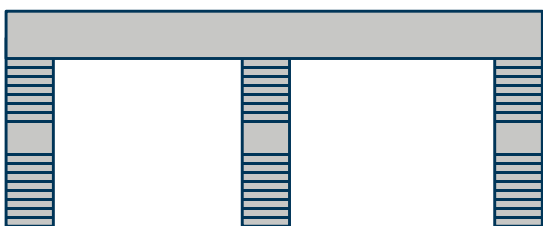
Type 1 - Single Span



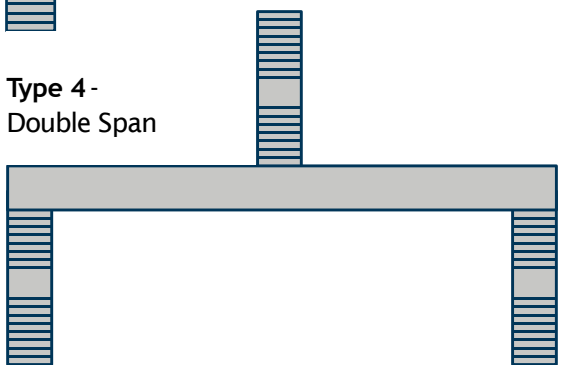
Type 2 - Single Span



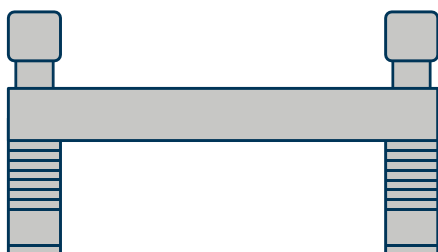
Type 3 - Double Span



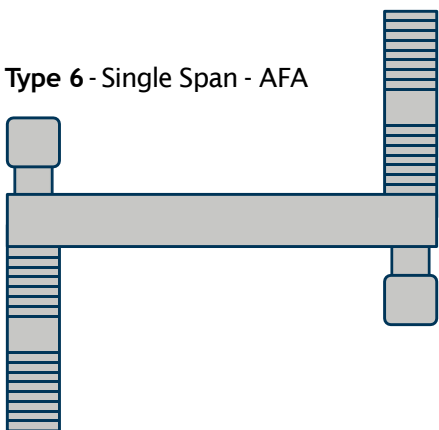
Type 4 - Double Span



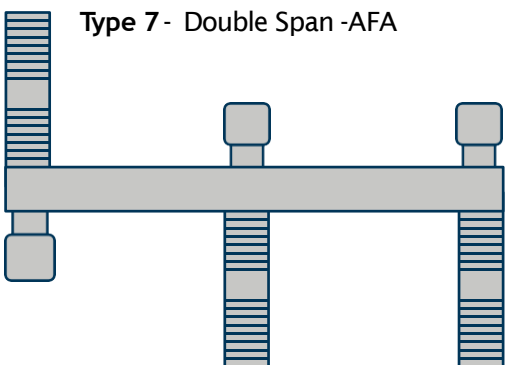
Type 5 - Single Span -AFA



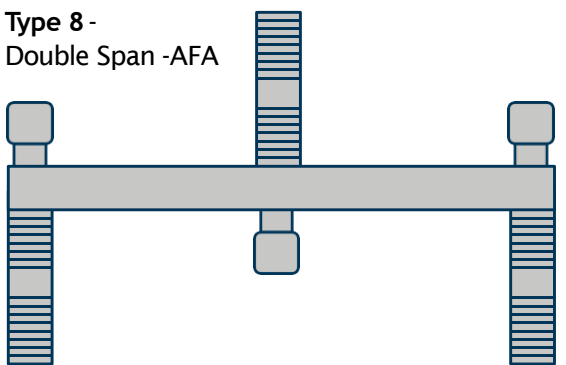
Type 6 - Single Span - AFA



Type 7 - Double Span -AFA



Type 8 - Double Span -AFA



Options are available with or without roofs.

The Legacy FRP Footbridge and AFA Modular Lift Units



# The Legacy FRP Footbridge - time-saving innovations

## Saves time and money by design

The reduction of installation time was a prime consideration in the design of the Legacy footbridge. This resulted in a number of time-saving innovations, including:

- **Simplified foundation design** – the reduced overall weight of FRP, when compared with steel structures, means we can make use of micro pile systems, such as RapidRoot and Screwfast Helical Piles, which can be installed behind Vortok Barriers during normal working hours.
- **Rapid deployment** – these systems allow the foundations for a standard Type I Legacy footbridge to be installed within 3 to 4 days and ready for immediate installation of the bridge. These concrete-free foundations are the most carbon-friendly solution available.
- **Simple delivery** – the Legacy footbridge can be delivered to site in pre-assembled sections with modular lift units. These can arrive by road, or even by rail, making use of standard RRV and road rail cranes.

## Rapid, low-cost installation

The site costs of bridge installation often accounts for the largest proportion of the overall cost, including:

- Installation of extensive site compounds
  - Installation of haul roads for access to the work site
  - Power and facilities on site during build
  - Reinstatement of the site on completion of the works
- This usually extends the whole installation programme to months.

The Legacy FRP footbridge can normally be installed in just weeks or sometimes even days.



## Shorter possessions, less disruption

The FRP Legacy footbridge reduces site operating costs. As a result of its design innovations, the FRP footbridge also delivers many other significant savings, including:

- **Shorter possessions:**
  - A Standard Type I Legacy footbridge can usually be installed within a single ROTR weekend possession.
  - The “plug and play” design of the lift units enables them to be added within a second ROTR weekend possession (with an extra day for foundation installation).
- Foundations can be installed outside of ROTR possessions, during working hours behind barriers
- Less time on site and the small number of operatives required, for example, the concrete-free foundations don't require wet trades on site. This allows the use of mobile welfare unit, avoiding the need for a costly welfare/ compound facility.
- Pre-assembled sections and modular lift units delivered by road or even rail
- **Modular lift units** – plug and play modular lift units can be installed in a fraction of the normal time

FRP footbridges equate to approximately 58% lower carbon footprint\*, but Taziker hasn't stopped there.

The ethos behind the design of the Legacy footbridge has always been to produce a bridge with the lowest carbon footprint possible.

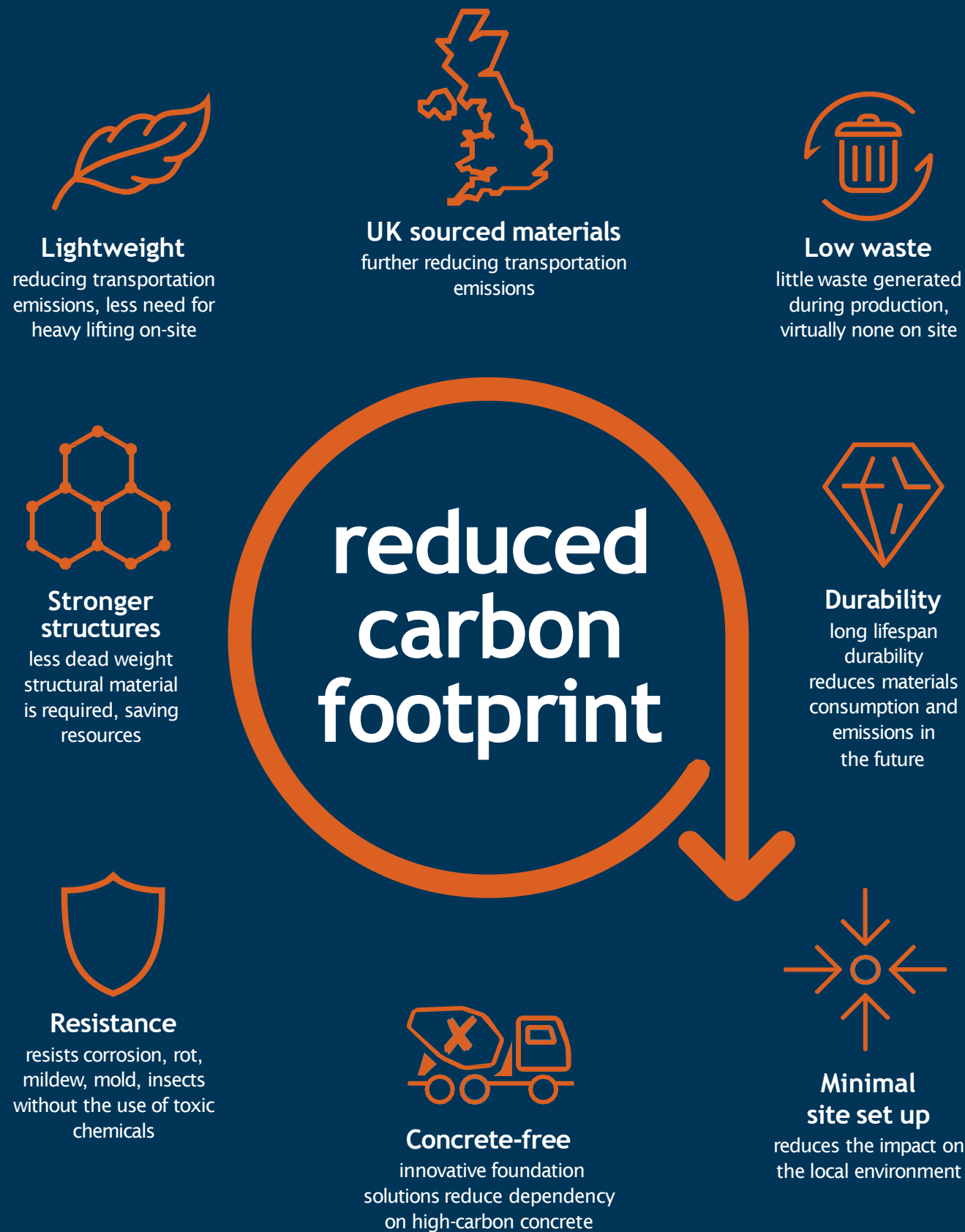
## The Legacy FRP Footbridge -

# sustainability at its core

\* Source: CIRIA-C779-Fibre-Reinforced-Polymer-FRP-bridges-guidance-for-designers



# The Legacy FRP Footbridge



# The Legacy FRP Footbridge -

## Built to last

The Legacy FRP footbridge is designed for durability with fibre reinforced polymer members delivering at least a 100-year structural life

### How do we achieve this?

The Legacy FRP footbridge is designed using high fibre density FRP with >70% of mass. This provides better performance for long-term creep and fatigue.

The FRP sections are linked by non-ferrous connections (marine grade stainless steel) tested to 2 million cycles.

- FRP has been designed and tested over 15 years to ASTM / ISO standards for:
- Fatigue loading typically to 2 million cycles
- Creep, Water absorption, Freeze / thaw

- Heat deflection temperature (HDT)
- Tensile modulus & strength
- In-plane shear modulus & strength
- Fire
- Cryogenic immersion

WCFT Road bridges have been in service for over 15 years in Canada and Australia without any maintenance required, despite heavy application of de-icing salt in Canada.

## Ready for any environment

The Legacy FRP footbridge has a specialist protective coating system that is designed to last 100 years, removing the cost of regular repainting which would be required with a steel bridge.

### How do we achieve this?

Durability and longevity are designed in through the use of advanced Vitreflon 700HB fluoropolymer paints created by A&I Coatings. These deliver:

- Coating life expectancy: 100 years
- Manufacturers warranty period: 40 years
- Confidence level on durability:
- Case studies reflecting 35 years field service with Fluoropolymer Technology

- 48,000 hrs accelerated weathering with UVB (equivalent to over 200 years service exposure)
- Adhesion testing, coating to substrate, after 21000 hours accelerated weathering (equivalent to over 100 years service exposure)



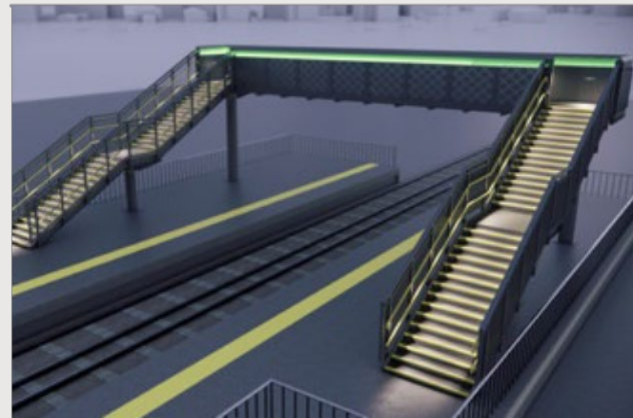


# The Legacy FRP Footbridge -

## Never looks out of place

The Legacy FRP footbridge can incorporate a number of cost-effective aesthetic design features which will help to match the local environment and assist in achieving local community support.

This authentic look can be further enhanced by picking out the design details in a contrasting paint colour, as shown in the heritage-type structures below. A range of heritage features, including lattice panels, are available to suit existing structures and stations.



Millom Footbridge

Settle Station Footbridge

Strathbungo Footbridge

## Quality assured

With the Taziker FRP Legacy footbridge, quality is assured at every stage, from materials and manufacturing, to enduring performance.

- **UK Manufacturing** – fabrication local to the Taziker factory allows bespoke and longer lengths to be manufactured. Imported materials are limited to the length of a shipping container and require multiple splice plate connections.
- **Colour range** – can be produced in any RAL colour to match to the environment into which the bridge will be installed, including standard grey, black, green and yellow.

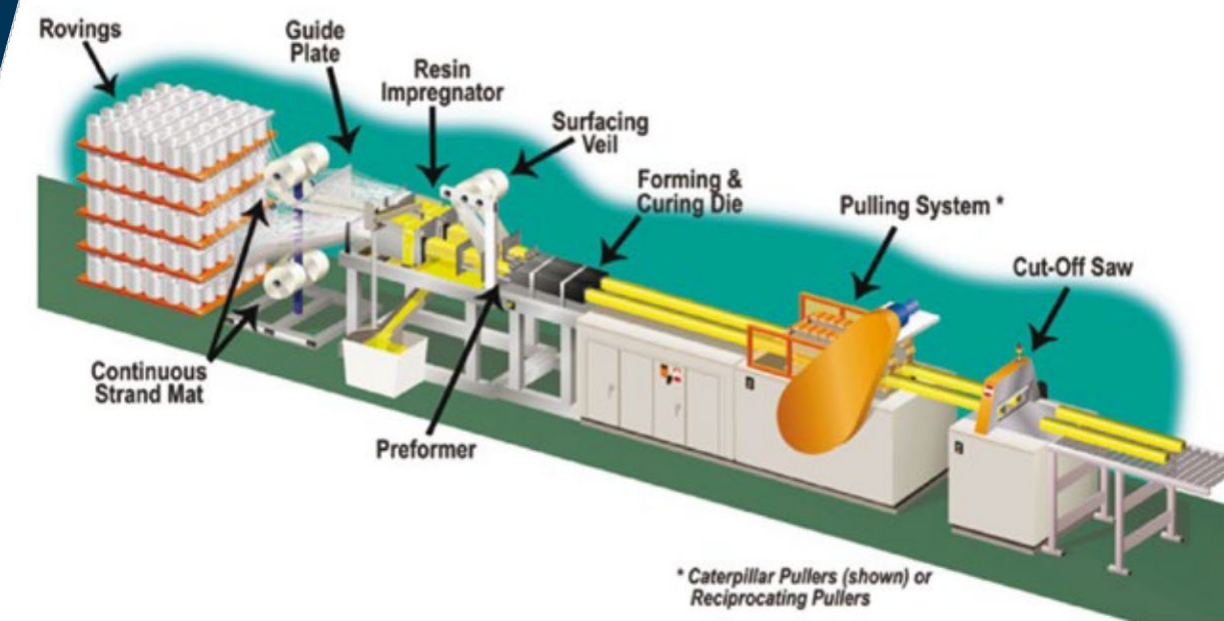
- **Quality guaranteed** – all profiles are produced to EN13706 E23 standard using a ISO9001 certificated and controlled processes. Incoming raw materials of glass and resin are traced through to the finished product, allowing full traceability on each cut profile length, including date, shift and operative details.
- **Prompt resolution** – in the unlikely event of a quality issue, as a UK manufacturer we can resolve problems far quicker and easier than would be possible for imported materials.
- **Fire resistance** – all FRP materials are manufactured to BS 476 Class I Fire Resistant quality.
- **Long life** – US military sponsored accelerated-life-testing has demonstrated that FRP can easily last beyond 100 years (Note: while this is not a guarantee, it illustrates what the material is capable of). The US military used FRP products extensively in both Iraq and Afghanistan, with typical spends of over \$10m FRP products.

**"The modular design for the FRP bridge provides a truly versatile solution that puts passengers first"**

# What is FRP?

FRP is Fibre Reinforced Polymer, a mix of fibres held together with a polymer resin. It includes additives for UV protection and fire retardancy

The material is a Thermosetting Polymer which uses heat in the manufacturing process to cure the product. (It cannot be reheated to alter its shape like a thermoplastic such as UPVC)



### Materials

- Pultruded – 60-70% glass 30-40% resin making a very light but strong product.
- Moulded – 35% glass 65% resin.

### Typical Resins

- Orthothallic Polyester – General Purpose
- Isophthalic Polyester – Good Chemical Resistance
- Vinylester – High chemical resistance
- Phenolic – Fire Integral with Low Smoke Toxicity
- Modar (Modified Acrylic) Low Smoke Toxicity

### Types of manufacture

- Pultrusion
- Hand Lay Moulded
- Compression Moulded
- Resin Infusion



# Why choose pultruded FRP?

Virtually maintenance free with low life cycle cost.

Warm-to-touch provides a more pleasant user experience in winter.

FRP Footbridges do not need permanent Earth bonding when used on lines with OLE, saving significant, design, installation and ongoing inspection costs.



## The Legacy FRP Footbridge -

### Technical specification

#### 1. Single support column design

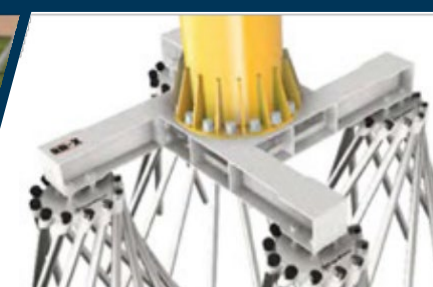
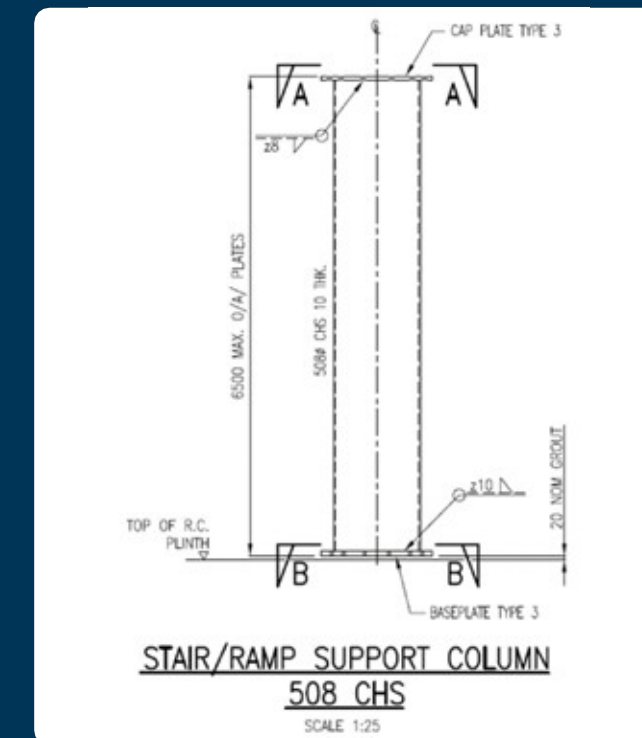
The existing NWR Series 400 Design includes the option for a single tubular support as an alternative to the traditional trestle design.

The single column support design is aesthetically pleasing and is a cost-effective solution requiring the minimum number of individual parts.

The posts are unclimbable and are more resilient to vandalism and accidental damage and easier to protect from corrosion than the trestle design option.

An anchoring solution is available that is suitable for all forms of micro pile foundation.

However, optional FRP Trestle supports are available if preferred





Technical specification

2. Fast, cost effective foundations



- Concrete free foundations are quicker and easier to install
- Suitable for RapidRoot and Screwfast Helical Piles
- Can be installed behind Vortok Barriers during normal working hours
- Up to 80% faster to install with no weather delays and no curing time
- Up to 60% cheaper than concrete foundations
- RapidRoot Foundation Solution for the Tubular Post Support Design Option



Technical specification

3. Stair tread design

The legacy FRP footbridge incorporates an all new stair tread design.

This has been created to deliver maximum durability and anti-slip performance, while maintaining an easy-clean, aesthetically pleasing unit. These units are guaranteed for 30 years and include:

- BS 476 Class 1 structural section for the main support
- Aluminium DDA compliant nosings
- Diamond pattern deck panels with near diamond hard anti-slip aggregate
- Durable anti-slip surface guaranteed for 30 years

**Durability**

Double layer of fused aluminium oxide aggregate and silicon carbide, with a hardness rating of 9moh, ensures extra durability against heavy usage.

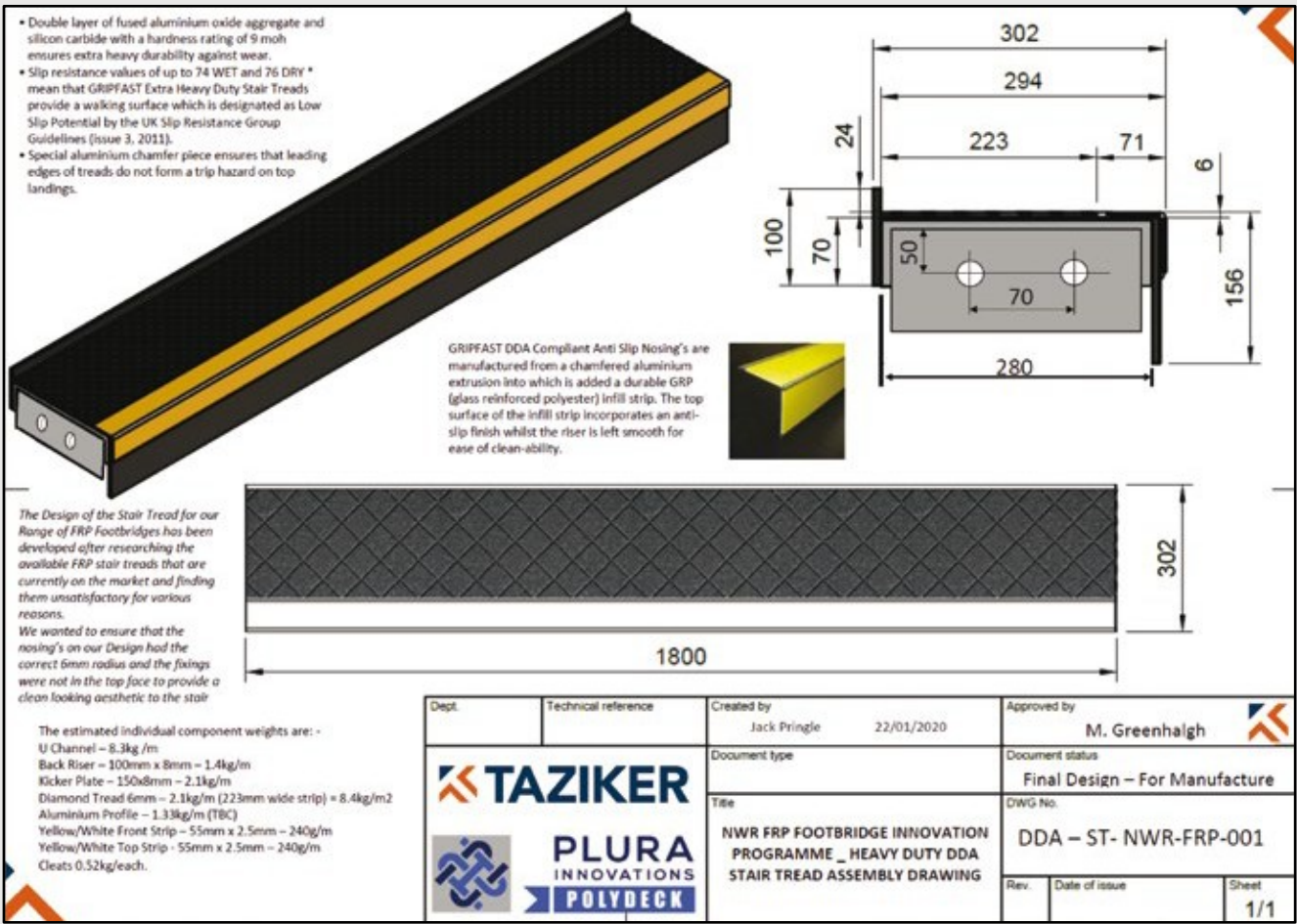
**Safety**

Slip resistance values up to 74wet and 76 dry mean are designated as low slip potential by the UK Slip Resistance Group (issue 2 2011)

Special aluminium chamfer piece ensure that leading edges of the treads are not a trip hazard on top landings.

**The Legacy FRP Footbridge - stair tread design**

This is a new stair tread design based on utilising a BS 476 Class I Structural Section for the main support with Aluminium DDA compliant nosing's and diamond pattern deck panels with near diamond hard anti-slip aggregate – guaranteed for 30 years.





## Technical specification

### 4. Safety lighting

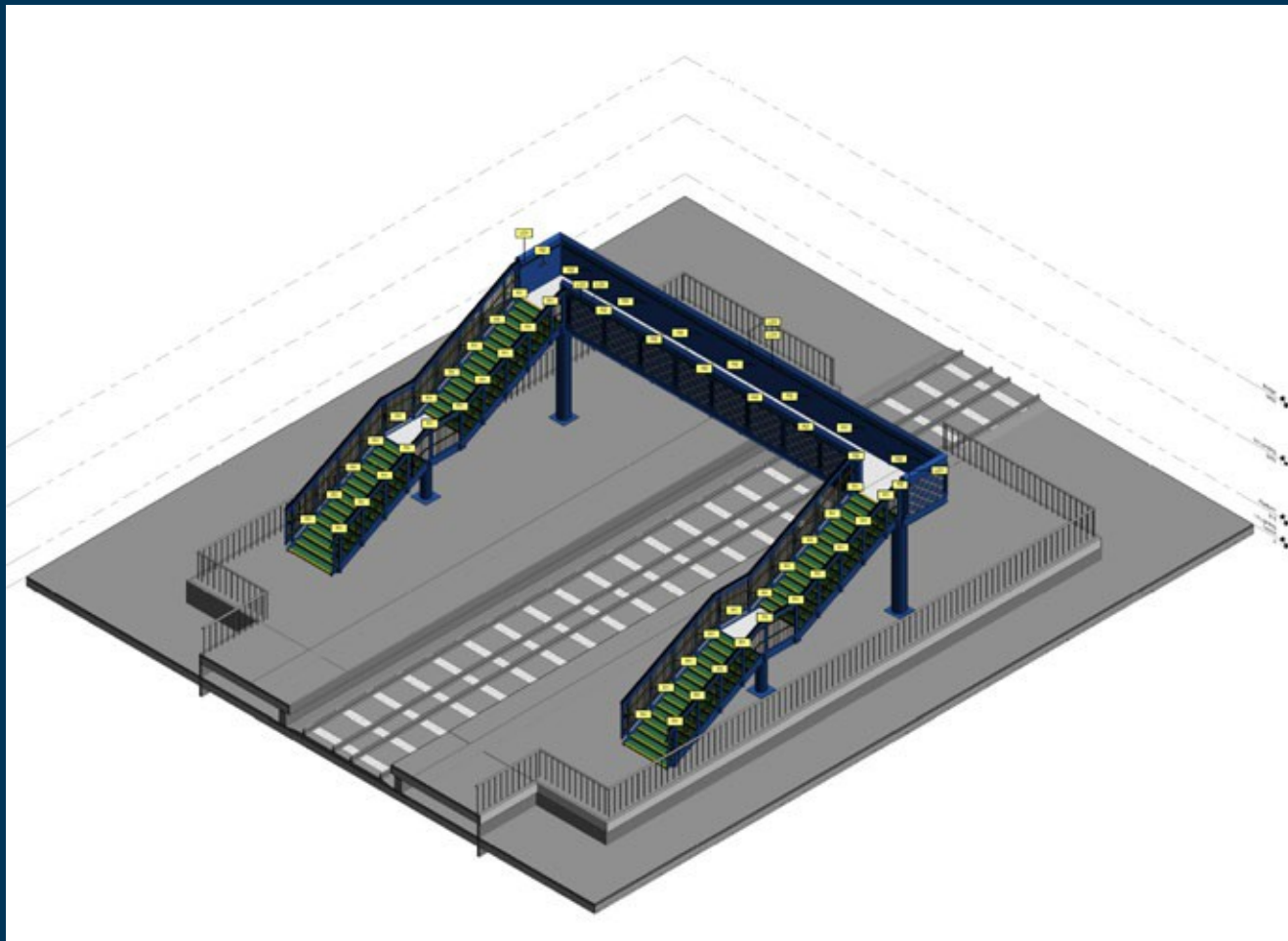
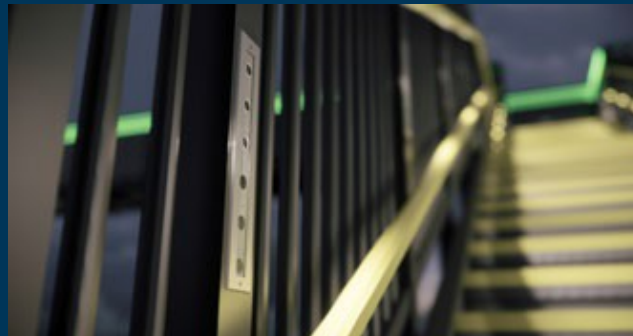
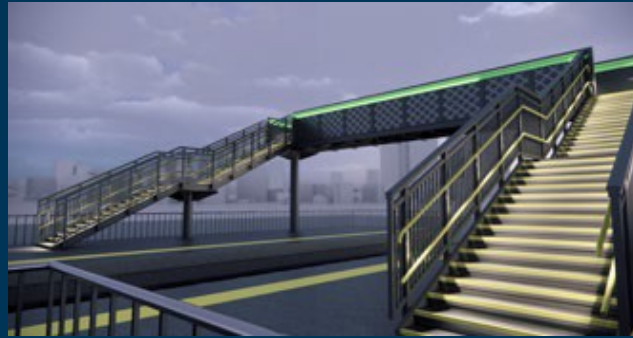
- Numerous lighting options available
- Solar and wind powered lighting for remote locations
- Discreet lighting for built-up areas
- Recessed units increase resilience to damage

#### Legacy AFA FRP Footbridge

The Legacy AFA FRP Footbridge has been specifically designed for Network Rail to reduce the cost and complexity of lift installation and provide true access for all. Modular plug and play lift units make accessible footbridges cost-effective and easy to install across the network.

#### Modular delivery to site for rapid installation

The plug and play lift has been designed to travel to site as a completed unit that can be easily off-loaded, lifted into its vertical position, and lowered onto a pre-installed foundation mounting plate.

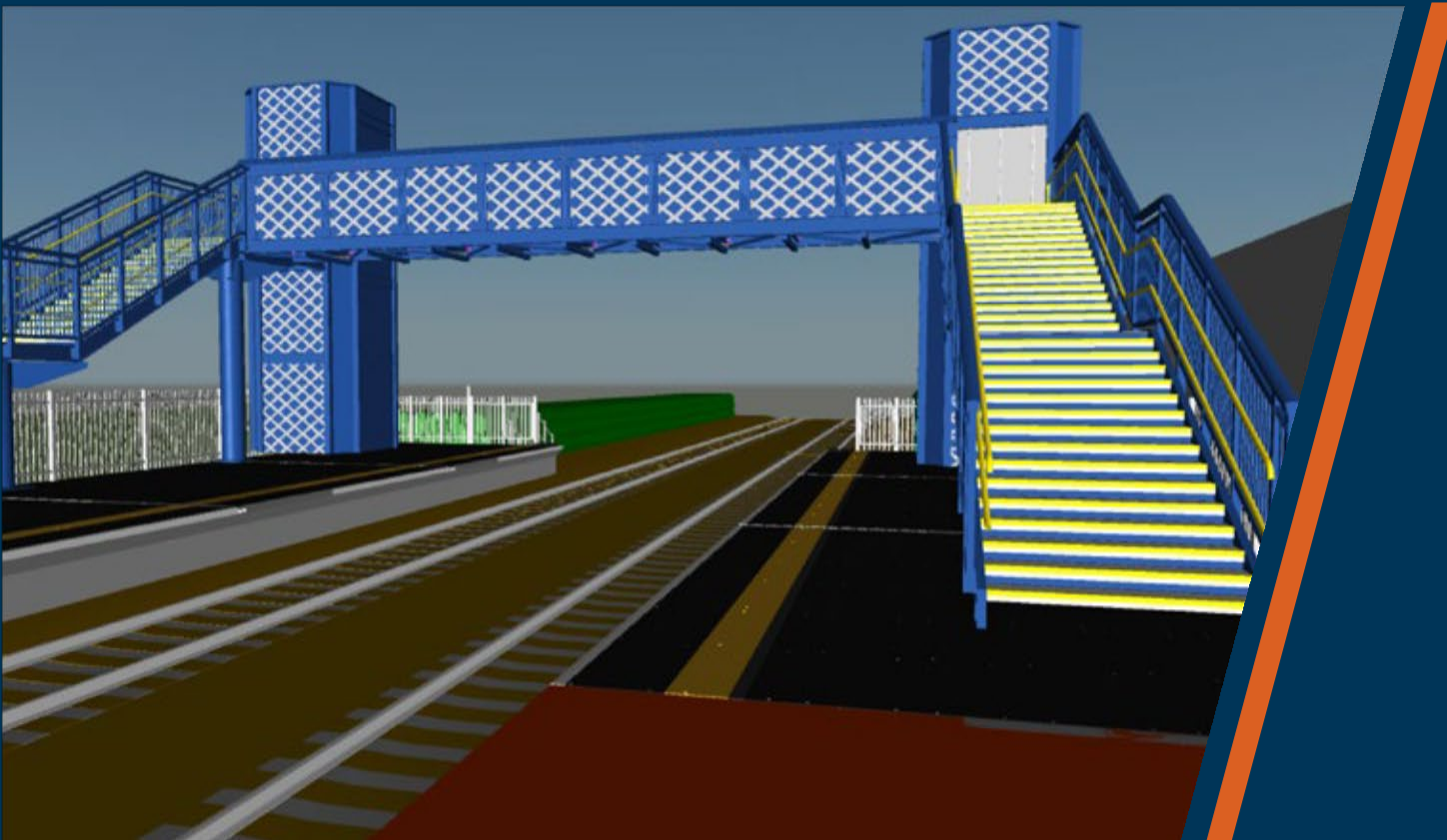


"The Legacy AFA FRP Footbridge reduces the cost and complexity of lift installation and provides true access for all"





# Legacy AFA FRP Footbridge

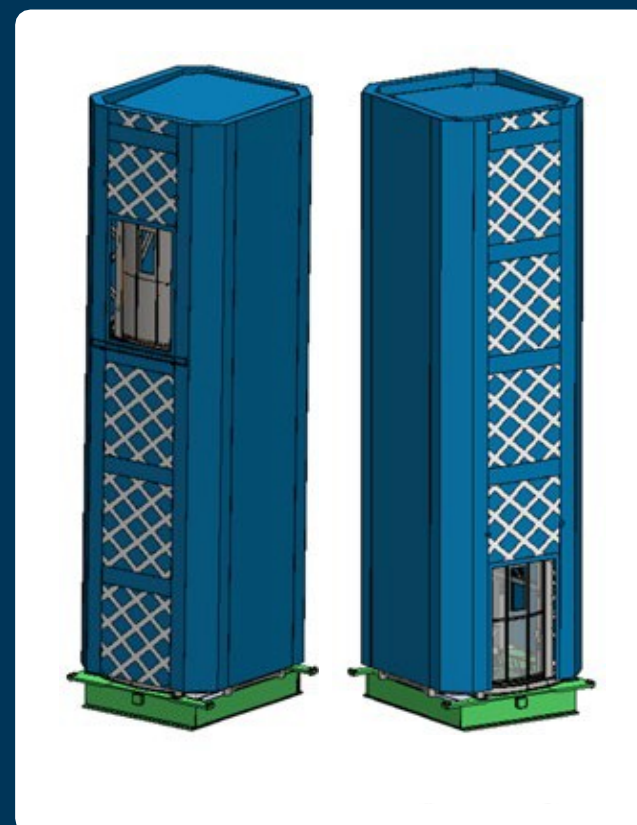


## Legacy AFA FRP Footbridge

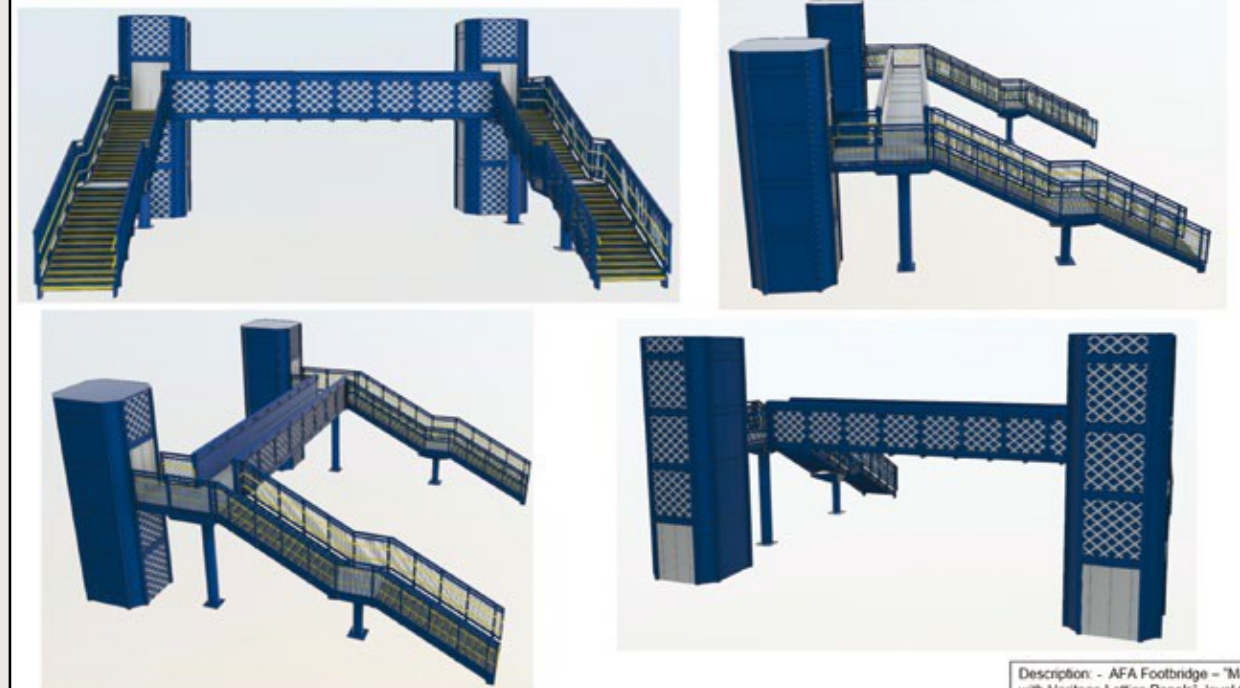
The Legacy AFA FRP Footbridge has been specifically designed for Network Rail to reduce the cost and complexity of lift installation and provide true access for all. Modular plug and play lift units make accessible footbridges cost-effective and easy to install across the network.

### Modular delivery to site for rapid installation

The plug and play lift has been designed to travel to site as a completed unit that can be easily off-loaded, lifted into its vertical position, and lowered onto a pre-installed foundation mounting plate.



**TAZIKER**  
Infrastructure Access Engineering Industrial



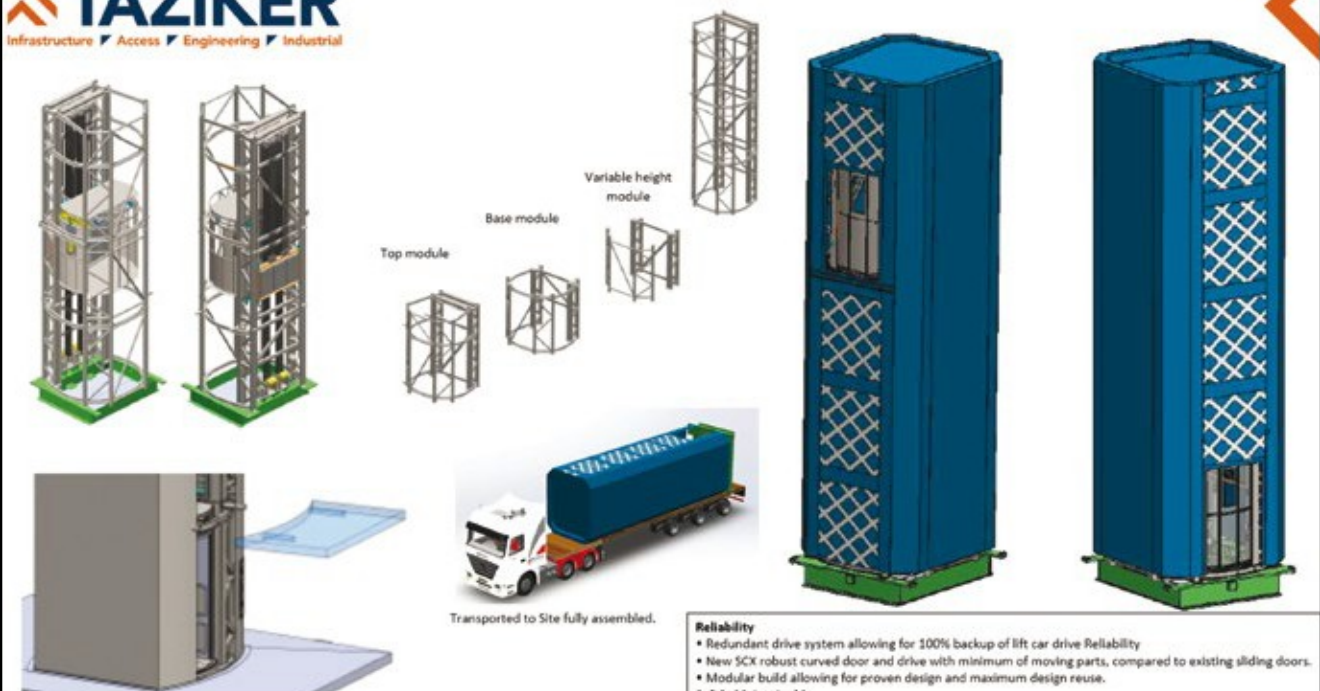
AFA Footbridge - 13.5M Main Span with "Heritage Lattice Panels", Level Coping detail, Vertical tubular Infill Parapets and double handrail to Stairways and lift accessways and Lifts.

Description: - AFA Footbridge - "Main Span with Heritage Lattice Panels", level Coping detail to Main Span, Vertical tubular Infill Parapets with single handrail to stairways.

Title: NWR FRP FB Innovation Programme

Drawing No: NWR/AFA/FRP/FB/LIFT/021

**TAZIKER**  
Infrastructure Access Engineering Industrial



### AFA FRP Footbridge Lift Unit.

- Optimised for all people, walking, wheelchair, bike, trolleys.
- Pre-configured factory tested ready to install lift.
- Minimal disruption to the platform for foundation, whilst ensuring

- Reliability**
- Redundant drive system allowing for 100% backup of lift car drive Reliability
  - New SCX robust curved door and drive with minimum of moving parts, compared to existing sliding doors.
  - Modular build allowing for proven design and maximum design reuse.
- Safely Maintainable**
- Maintenance from ground level or within the lift car or via video playback for safety
  - Condition Monitoring
  - Monitored drive tension to enable condition monitoring via dialup/mobile broadband connection.
- Condition Monitoring**
- Monitored drive tension to enable condition monitoring via dialup/mobile broadband connection.

Title: NWR AFA FRP FOOTBRIDGE

Drawing No: NWR/FRP/FB/AFA/ML/019

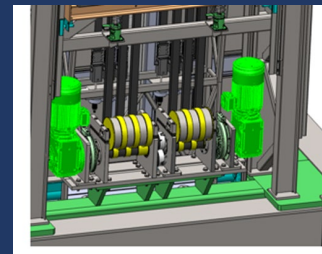


# Legacy AFA FRP Footbridge

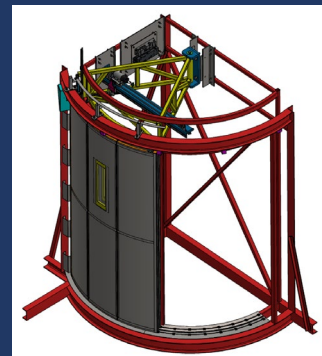
## Modular Lifts



AFA Modular Lift Unit



Redundant drive motors / clutch assemblies, central operational brake, Belt drive capable of extended life



Door Mechanism access from within the car

- Specifically Designed to suit NR installation with a new or existing footbridge.
- Manufactured and assembled in Sheffield from a configurable design of parts to suit footbridge variables.
- Fully Factory pre-commissioned on its integral clad structure.
- Delivered complete with integral installation equipment.
- Minimum of on-site work – plug and play
- Optimised for all people, walking, wheelchair, bike, trolleys.
- Pre-configured factory tested ready to install lift.
- Minimal disruption to the platform for foundation, whilst ensuring compliance to BS EN 81-20.

### Reliability

- Redundant drive system allowing for 100% backup of lift car drive Reliability
- New robust curved door and drive with minimum of moving parts, compared to existing sliding doors.
- Modular build allowing for proven design and maximum design reuse.

### Safely Maintainable

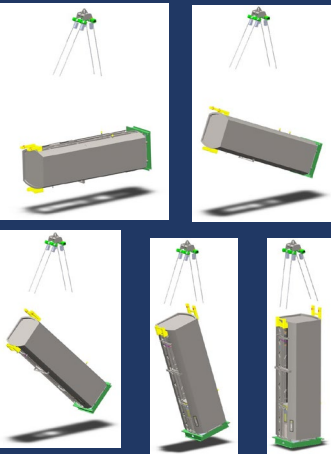
- Maintenance from ground level or within the lift car or via video playback for safety

### Condition Monitoring

- Monitored drive tension to enable condition monitoring via dialup/mobile broadband connection.

### Access for All

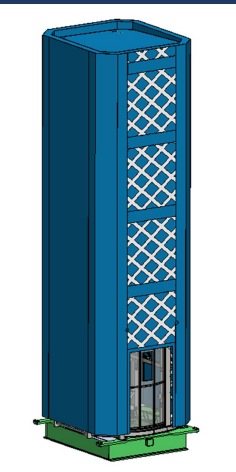
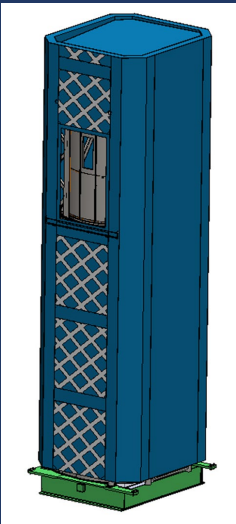
- 1.1m opening x 1.60m wide internal to allow for wheelchair rotation – when not installed as a through lift.
- Large approved lift control buttons, Intercom within the lift for emergencies
- Full light panel in the car roof
- Rain canopy option available



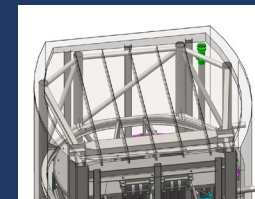
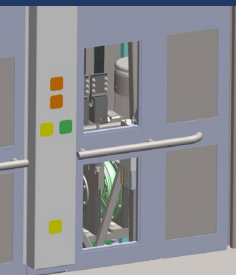
On lorry attach the 4 chains to the lift, from short spreader beam. Lift to raise allowing for the motorised chain winches to allow for rotation of the lift.



**TRANSPORT** - Prior to rotating the lift to lie it down, the lift car will be made safe and transit bolts and clamps will be fitted to prevent movement, allowing for the drive belts to remain connected. The balance weight will have its weights removed. The control cabinet will be packaged and the umbilical cables will be stored at SCX. The FAT tested lift assembly with integral lift pit, is ready to install and laid onto its specific transport frame.



FRP Cladding to match Bridge Structure



Lift drain with 'rodding point' through to positive drain at base of the lift.

## Legacy Footbridge – FRP Platforms



**Fully tested at Warrington Fire for Fire Resistance, PLURAdeck conforms with:**

BS476-7 Class 1 Spread of FlameBS476-20 Method for determination of the fire resistance of elements of construction BS476-20 Method for determination of the fire resistance of loadbearing elements of construction BSEN13501 B,s2,d0 s Fire classification of construction products and building elements RIS 7700INS Network Rail Standard



At some stations, the existing platforms may be insufficient in length and width to site a new AFA Footbridge.

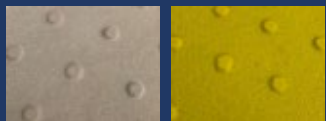
However, we have the ideal solution in the form of the FRP Rail Platform that can be installed and supported using the same type of concrete free micro-pile foundations used to support the FRP AFA Footbridge and Lift units.

All fabricated using Pultruded FRP Class 1 Structural Sections with Anti-slip decking to match the footbridge and stairs.

A high-quality Rail Platform decking system for new build, platform extension or overlay in the elimination of Platform Train Interface (PTI) stepping issues.

It offers 'Best in Class anti-slip and anti-wear surface finish. Thoroughly tested to Loading and Fire requirements of Network Rail.

As part of a full GRP modular system, it offers constructors the means of building platforms in a fraction of the time taken for traditional materials, whilst improving on the lifespan of the finished product



Tactiles available in Buff or Yellow



Near Diamond Hard surface finish: Outperforms coated finishes for wear resistance by decades

POLYsade® has been developed to offer an exceptionally long life, good looks and safety from electrical touch potential: All in a minimum of a Class 1A security fence.

As it's equally at home providing protection to assets, a long life replacement to short lived traditional fencing or in areas where a source of electricity is present; there's no surprise then; it is widely adopted for use in rail and power networks.

Employing Patented design; POLYsade® delivers a level of security far superior to any other GRP fence and even higher than many steel palisade type fences.





# The Legacy AFA FRP Footbridge - Access for all

The SCX lift units are designed to provide easy access for all through a number of design features:

- 1.1m wide door opening
- 1.6m wide internal width to allow for wheelchair rotation when a through lift.
- Large approved lift control buttons
- Intercom within the lift for emergencies
- Full light panel in the car roof
- Rain canopy

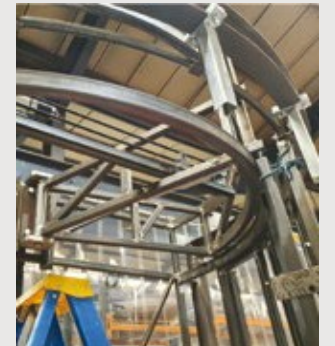
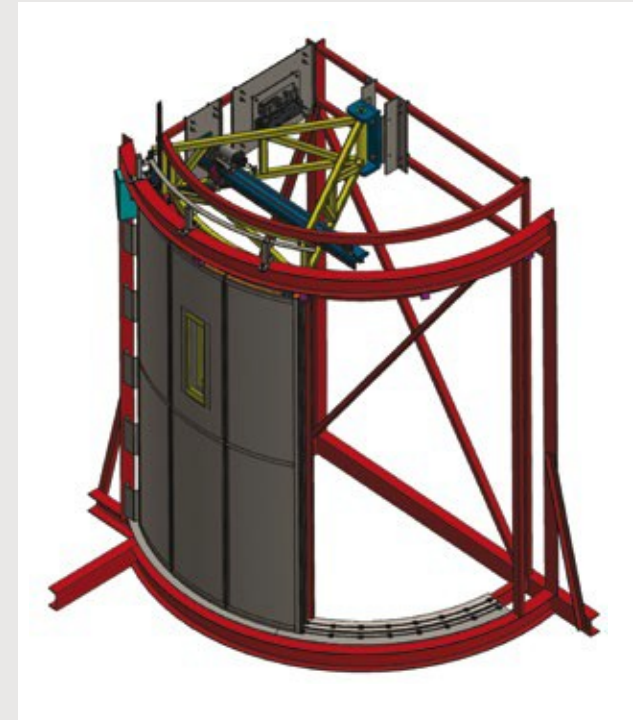
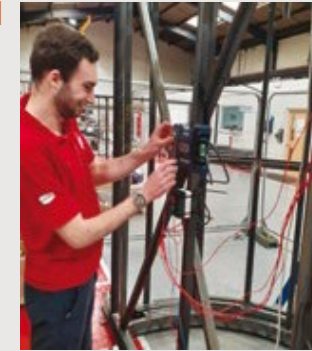


## Modular Lift Units - prototype built and tested

The modular lift unit uses a proven certified lift door controller with 3D detection light strips to protect users.

The prototype door and drive have undergone extensive testing 24-7, using automated devices to impede closure.

The main mechanism is designed for 15 million cycles.



Door Mechanism access from within the car



Belt/termination and Limax SIL 3 position controller inspection



Rail inspection through maintenance access hatches



• Redundant drive motors/clutch assemblies  
• central operational brake

## Designed for simple maintenance

Simple, cost-effective lift maintenance

- Totally reliable - with redundant belt drive system and robust curved door
- Safely maintainable - from ground level, within the lift car or via video playback, including Bbelt/termination and Limax SIL 3 position controller inspection and rail inspection through maintenance access hatches
- Fully trackable - with remote monitoring via dialup/mobile broadband connection



Pit with integral drain and pump, for buffer etc



# Taziker - the multi-disciplinary engineering specialists

- Taziker has a hard-earned reputation for innovation and engineering excellence
- Taziker has been trusted with some of the most iconic UK structures, from the Forth Bridge to the Iron Bridge in Telford.
- Taziker is proud to be an approved contractor for Network Rail
- Taziker has worked on wide range of projects, from station platform replacement on the Welsh Coast, to bridge timber repairs in the Fens.
- Taziker has an in-depth insight into the demands of the rail network in terms of safety, performance and economics and appreciate the duty of care to passengers and freight operators and the need to minimise disruptions.

## Awards and accreditations



"Taziker has an in-depth insight into the demands of the rail network in terms of safety, performance and economics"





# The Legacy FRP Footbridge and Legacy AFA FRP Footbridge

An affordable, accessible, sustainable solution for footbridge installation that puts passengers first.

## £ Affordable

- Highly cost-effective in both initial construction costs and installation
- Durable, low-maintenance design cuts whole of life costs
- Low-cost, rapid installation with minimal possessions

## ↩ Accessible

- Accessible for all with plug & play lift units that can be deployed anywhere
- Simple, modular installation significantly reduces installation costs
- Smart design for easy maintenance and repair on site

## ♻ Sustainable

- Environmentally friendly compared to steel or concrete bridge designs
- Durable materials and coatings with 100 year life span
- Concrete-free foundations for reduced carbon footprint

Tāziker has the affordable answer to solve your footbridge installation problems.

To discuss how we can work with you to deliver your next footbridge project efficiently and cost-effectively, talk to our team today.

Tāziker – the multi-disciplined engineering specialists.

The Legacy FRP Footbridge -  
**the solution  
you need**