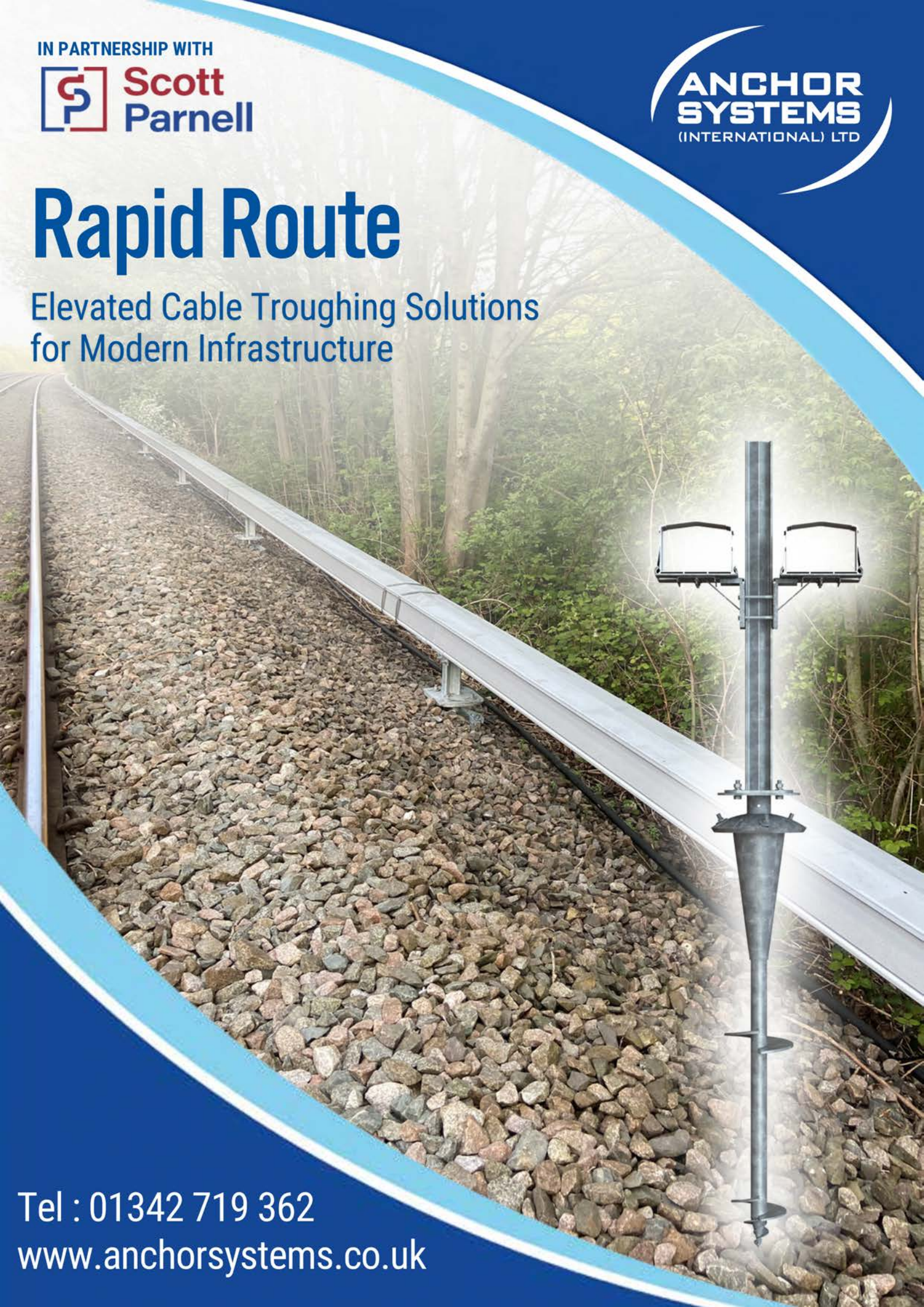
IN PARTNERSHIP WITH

Scott Parnell

ANCHOR SYSTEMS (INTERNATIONAL) LTD

Rapid Route

Elevated Cable Troughing Solutions for Modern Infrastructure



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www.anchorsystems.co.uk

The System

Born from collaboration between Scott Parnell and Anchor Systems International, Rapid Route unites two proven engineering innovations—ARCOSYSTEM® and the Anchor Screw®—to create a game-changing, fully elevated cable route solution for the UK rail and infrastructure sectors.

In a market where traditional options rely heavily on ground-based routing or concrete foundations, Rapid Route is a step forward: the only concrete-free, UK-manufactured, elevated cable route system. This pioneering solution offers rapid, safe, and sustainable installation without compromising durability or performance.

Designed for speed and simplicity, Rapid Route can be installed entirely by hand with no need for excavators, cranes, or heavy plant. Installation rates of over 744 metres in a single shift have already been achieved, dramatically cutting project timelines and labour costs. The system also boasts significant carbon savings, reducing embodied emissions by up to 73% compared to traditional methods.

Whether it's cost, speed, safety, or environmental responsibility, this is the elevated cable troughing solution the industry has been waiting for.

Key Benefits:

- No concrete or spoil removal required
- No water or any wet trades
- Rapid installation with minimal environmental disruption
- 100% system tested during installation
- Lightweight and modular
- Removable & Reusable
- 100+ year design life
- Designed for all displacable ground types
- Handheld Installation
- PADS approved
- UK-manufactured from recycled materials

IN PARTNERSHIP WITH Scott Parnell

Why Choose Rapid Route?

When planning and delivering infrastructure projects, speed, safety, cost-efficiency, and sustainability are more critical than ever. That's where Rapid Route stands apart. Here's why leading contractors and asset managers are choosing it:

- **Faster Installation:** Rapid Route lives up to its name. With no need for concrete, excavation, or heavy machinery, installation is fast and efficient. All components are lightweight and can be installed by hand—allowing for up to 744 metres of system to be deployed in a single 5-hour shift. That's significantly faster than traditional ground or concrete-based alternatives.

- **Environmental Responsibility:** Manufactured in the UK using recycled materials—including Anchor Systems' patented Anchor Screws—Rapid Route is a low-carbon alternative to concrete systems. In fact, it offers a 73% reduction in embodied carbon, making it the sustainable choice for forward-thinking infrastructure projects.

- **Cost-Effective:** Reduced labour hours. No plant hire. Minimal ground preparation. By eliminating the need for wet trades and heavy groundwork, Rapid Route dramatically reduces both direct and indirect costs. It's a smarter use of budget across planning, materials, installation, and maintenance.

- **Ideal for Challenging Terrain:** Adaptable to various terrains, including embankments, uneven ground, and urban environments. The system can be easily modified to fit specific project requirements, whether for standard infrastructure or more complex rail installations.

- **Low Maintenance:** Built with corrosion-resistant materials and a robust design, the Rapid Route System requires minimal maintenance, reducing long-term operational costs. The galvanised steel components ensure durability even in harsh environmental conditions.

- **Safety by Design:** With elevated, visible cable routing and reduced need for excavation, Rapid Route significantly lowers on-site hazards. The modular, hand-held installation process also reduces the risk of injury from manual handling and plant-based operations.

Rapid Route: P05

Designed for Heavy-Duty Rail Infrastructure

P05 is engineered for applications requiring maximum load capacity and structural flexibility, particularly in extreme sloping or high-load rail environments.

Key Features:

- Includes interface plate for complex, heavy-duty configurations
- Withstands very high loads
- Sigma post and ARCO system installed separately
- Installation time approx. 5-6 minutes per unit
- Ideal for complex rail infrastructure and elevated designs

Drawing Reference	ARCO Size 1		ARCO Size 2	
	Anchor Screw	Torque, T (kNm)	Anchor Screw	Torque, T (kNm)
RR-003	1795	0.6	1795[2]	1.1
RR-005	1795	0.8	1795[2]	1.7
RR-006	1795	0.8	1795[2]	1.7
RR-011	1795	0.6	1795[1]	1.1

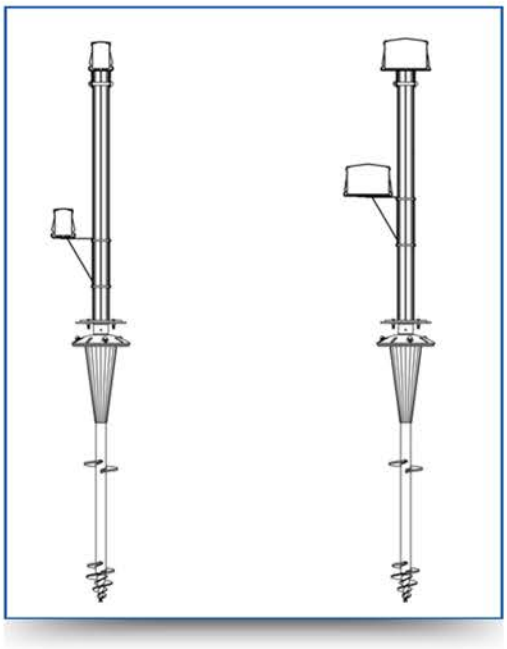
The torque value in the table is the minimum torque that needs to be achieved during installation of the Rapid Route system.

System Configurations

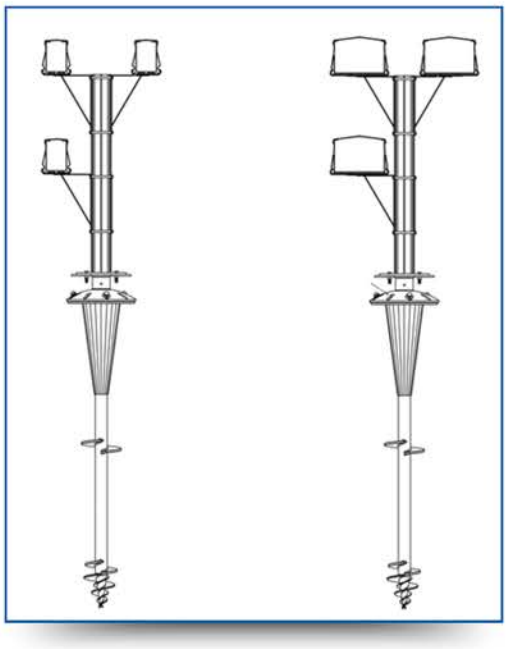
P05

Engineered for maximum load capacity and structural adaptability, the P05 is the foundation solution of choice for complex rail infrastructure and challenging sloping terrain.

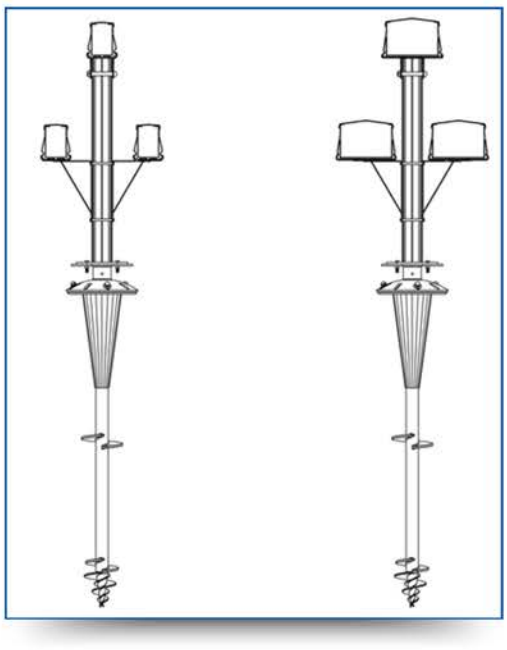
Incorporating an interface plate, the P05 supports heavy-duty configurations and elevated designs with ease. It's built to withstand exceptionally high loads, making it ideal for high-stress applications. The Sigma post and ARCO system are installed separately for added flexibility, with a typical installation time of just 5 to 6 minutes per unit.



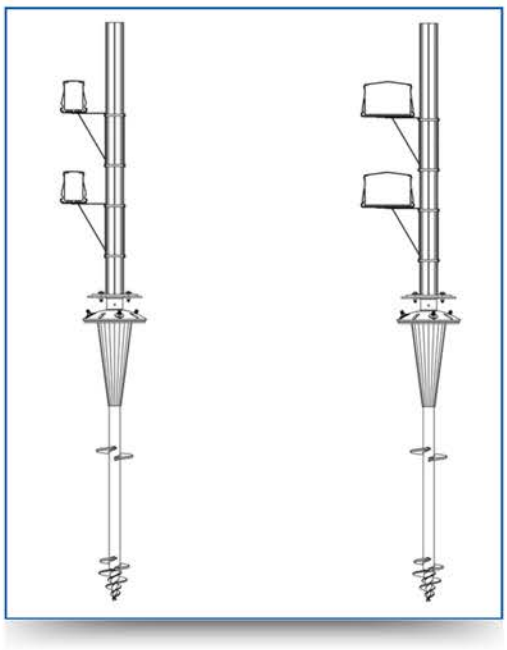
003
1000mm Apart



005
Double Side Option (2x1)



006
Double Sided Option (1x2)



011
1000mm Apart

Rapid Route: P06

The New Standard

P06 is now the default foundation system in the Rapid Route range. It delivers high performance while dramatically reducing cost and complexity.

Key Features:

- Interface plate removed to streamline design
- Direct mount Sigma post integrated into the foundation
- Lightweight components allow for 4-5 minute installation per unit
- Up to 50% system cost reduction in comparison to the P05 system
- Suitable for standard infrastructure, embankments, and sloping ground

Drawing Reference	ARCO Size 1		ARCO Size 2	
	Anchor Screw	Torque, T (kNm)	Anchor Screw	Torque, T (kNm)
RR-046	AS1595	0.3	AS1595	0.6
RR-047	AS1595	0.3	AS1595	0.6
RR-049	AS1595	0.6	AS1595	1.1
RR-056	AS1595	0.3	AS1595	0.6

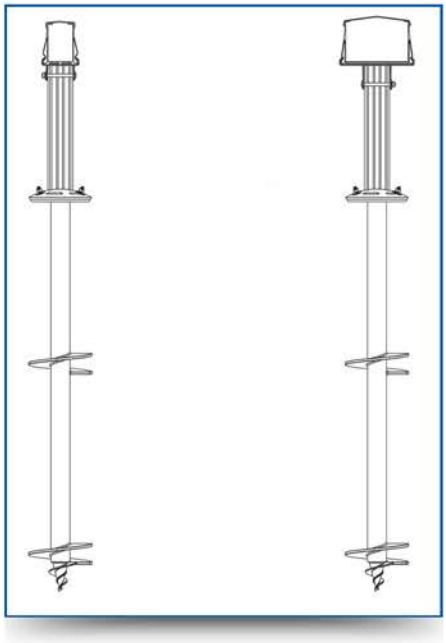
The torque value in the table is the minimum torque that needs to be achieved during installation of the Rapid Route system.

System Configurations

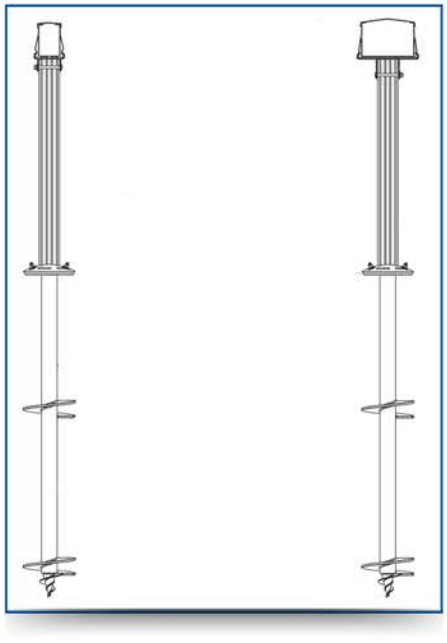
P06

The P06 is now the default foundation system in the Rapid Route range, offering exceptional performance while significantly cutting both cost and complexity.

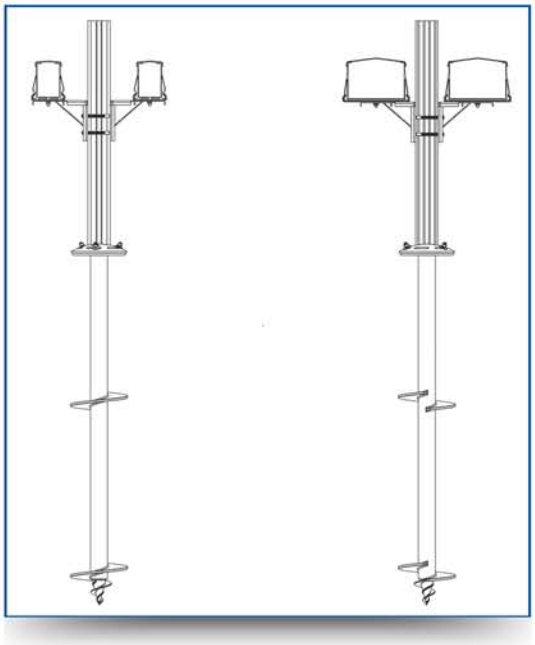
With the interface plate removed, the streamlined design integrates a direct-mount Sigma post directly into the foundation, eliminating unnecessary components. Its lightweight construction enables rapid installation—just 4 to 5 minutes per unit.



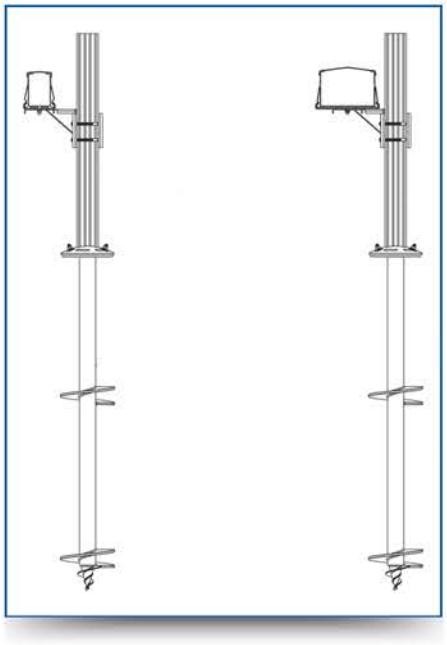
046
500mm Ground Clearance System



047
1000mm Ground Clearance System



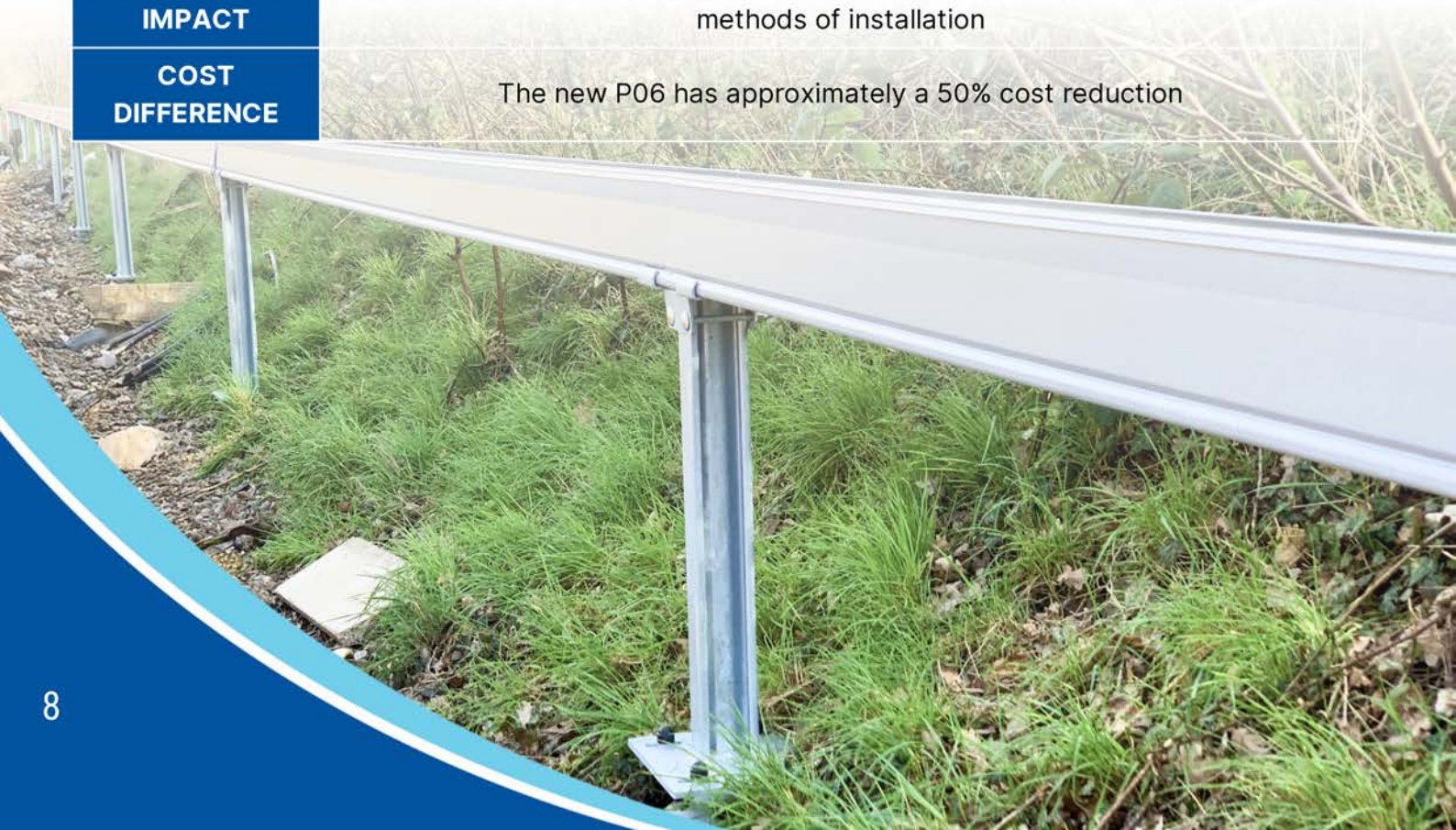
049
Double Side Mounted System



056
Single Side Mounted System

P05 V P06

	P05	NEW P06
INTERFACE PLATE	Required	Removed to simplify design and reduce costs
LOAD CAPACITY	Very high, designed specifically for heavy-duty rail applications and extreme sloping ground	Standard, suitable for the majority of projects / infrastructure, including embankments and sloping ground.
INSTALLATION TIME	5-6 minutes before adding the Interface Plate and ARCO System	4-5 minutes before adding the domed post for the ARCO System
MATERIAL USAGE	Higher, leading to increased costs	Reduced, resulting in approx 50% cost savings
PRIMARY APPLICATION	Complex rail projects and heavy infrastructure	Standard cable troughing and rapid installations
ENVIRONMENTAL IMPACT	Heavily reduced embodied carbon and reduced material waste than traditional methods of installation	
COST DIFFERENCE	The new P06 has approximately a 50% cost reduction	



Sustainability Impact

At Anchor Systems, sustainability is at the heart of everything we do. Through continuous innovation, we're helping to transform how infrastructure is built—offering low-impact, high-performance alternatives that actively reduce environmental harm across the rail network.

Sustainable by Design

Our systems are designed to minimise waste, reduce material use, and eliminate the need for concrete, which significantly lowers carbon emissions during installation. The Anchor Screw and Rapid Route systems not only simplify groundworks—they actively support your environmental targets.

Environmental Impact at a Glance

- **Material Efficiency:** 89.4% material savings through optimised design
- **Carbon Reduction:** 73% reduction in embodied carbon, equivalent to 13,920 kg CO_2
- **Eco-Friendly Manufacturing:** Produced from 100% recycled steel in the UK, minimising environmental impact.
- **Sustainable Practices:** Recyclable components, reduced water usage, and eco-friendly packaging materials.

Greener Materials, Smarter Packaging

Every aspect of our operation is being refined to reduce impact—from recyclable packaging and reduced water usage, to waste management and transport efficiency.

We hold the **Made in Britain** accreditation and are proud to contribute to a lower-carbon future for the UK's rail infrastructure.

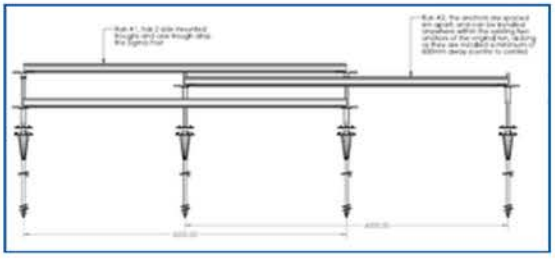
Rapid Route Systems

The Rapid Route system has been developed to address the practical challenges of rail-side installations. From tight spaces and elevation changes to upgrades on existing routes, our system provides intelligent, flexible solutions that reduce complexity on site.

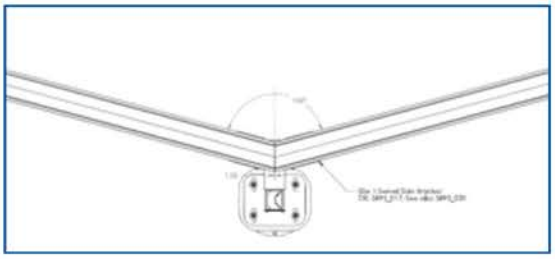
Each configuration works seamlessly with the ARCO troughing system and is designed for fast, efficient installation with minimal disruption to live rail environments.

Additional Arrangements Include:

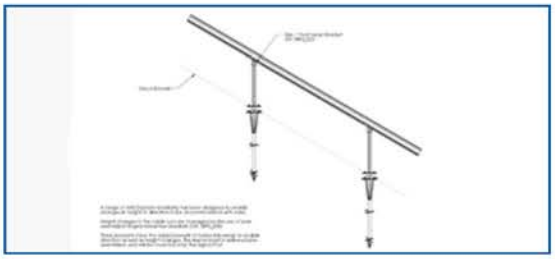
Overlapping Runs
Enable continuous cable routes using modular overlaps between trough units. Ideal for extending existing infrastructure or accommodating long runs without interruption.



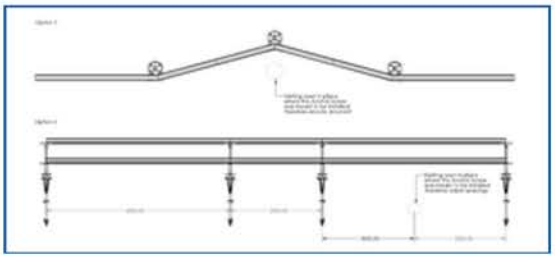
Change of Direction
Easily adapt the system to suit bends and route deviations. Custom brackets and adjustable foundations maintain trough alignment through horizontal turns.



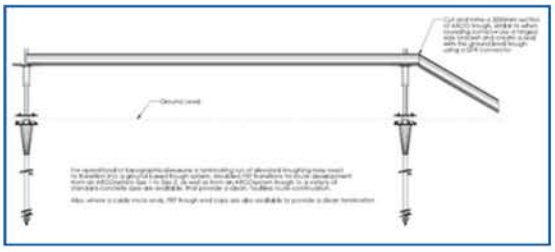
Change in Height
Accommodate elevation shifts across varying ground levels or step-down sections using adjustable post heights and secure transition components.



Remedial Installation Options
Designed with retrofit and upgrade works in mind, these configurations allow the system to be installed around existing obstacles or alongside legacy infrastructure with minimal civil intervention.



Transition to Ground Trough
Smoothly integrate the raised Rapid Route system with traditional ground-level troughing. Ideal for blending new and existing installations while maintaining cable protection and accessibility.



Arco Troughing

The ARCO troughing system is a robust, long-lasting cable management solution designed specifically for the rigours of rail infrastructure. Manufactured from high-performance materials and mounted securely to our Rapid Route foundation system, ARCO troughing offers a strong, reliable method of protecting and routing critical cabling along the trackside.

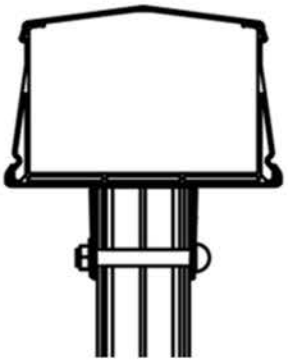
To suit a range of project scales and cable capacities, the ARCO system is available in two key sizes:

Size 1

Compact and efficient, Size 1 troughing is ideal for standard cable runs where space is limited or lighter cabling requirements apply. It provides a neat, secure channel while maintaining easy access for maintenance.

- Suitable for single or smaller cable bundles
- Lower profile for minimal visual impact
- Lightweight for fast installation and handling
- Perfect for straightforward runs and less complex infrastructure zones
- Internally: 100 x 160 mm
- Trough Weight: 26 kg
- Lid Weight: 5 kg

*based on 6m of Cable Troughing



Size 2

Designed for higher capacity and more complex installations, Size 2 offers increased internal volume to accommodate larger cable bundles or multiple services within a single trough.

- Suitable for high-volume or multi-service cabling
- Larger internal dimensions for flexibility
- Ideal for junctions, signal hubs, or technology-heavy corridors
- Provides additional room for future upgrades or expansions
- Internally: 250 x 160 mm
- Trough Weight: 36 kg
- Lid Weight: 10 kg

*based on 6m of Cable Troughing

Both sizes are designed to integrate seamlessly with the Rapid Route system, ensuring consistent ground anchoring performance and reducing installation times without compromising on strength or reliability.

Need guidance on selecting the right trough size for your application? Our team is here to help with specification support and layout planning.

How is Rapid Route Installed?

Precision planning. Lightweight tools. Rapid deployment.

Installation of the Rapid Route system is designed to be fast, efficient, and adaptable to real-world site conditions—all while maintaining the highest safety and quality standards.

When you purchase a product through Anchor Systems there's no need for you to shop around trying to find installation equipment or specialist installers. We can supply you with all the tools and training you need or if you require a complete supply and installation service, we have our very own list of approved and experienced contractors who have undertaken specialist training to install our specialist products.

Site Testing

The chosen anchor system should always be proof tested on site prior to starting work. Site tests are vital, especially when soil test reports are not available as they allow the confirmation of maximum loading achievable in the areas that the ground anchors are to be positioned and also allow for creep testing.

Site Preparation

Before any anchors are installed it is always recommended to use a CAT scanner to the required depth to check for buried services.

Personal Protective Equipment

At Anchor Systems (International) Ltd we strongly recommend that before you install any type of below ground system that the proper safety equipment is worn. Please see below the recommended personal protection equipment:

- Hard Hat
- Safety Boots
- Goggles
- High Visibility Clothing
- Ear Defenders
- Gloves

Step 1: Site & Ground Penetrating Radar (GPR) Surveys

- Before installation begins, detailed site surveys and GPR scans are conducted.
- Unlike traditional utility scans that focus only on live power or signal cables, our surveys are designed to detect all buried services—including water pipes, clay or plastic ducts, and decommissioned systems—ensuring installation can proceed safely, even during switch-outs.

Step 2: Anchor Screw Installation

- At each surveyed location, Anchor Systems' patented Anchor Screws are installed using a bespoke, lightweight handheld torque head. This tool is designed for portability and ease of use, requiring no heavy plant or machinery.
- Installation typically takes 4–8 minutes per anchor, depending on soil stiffness and foundation size.
- The process is quiet, efficient, and low-impact—ideal for constrained or environmentally sensitive areas.

Step 3: Modular, Phased Deployment

- Installation teams work in coordinated phases. A "bumping out" team progresses ahead, installing Anchor Screws at pre-scanned, marked locations. Behind them, the main installation crew follows, rapidly mounting the elevated ARCOSYSTEM® troughing to the pre-set foundations.
- Even in restricted 4-hour working windows, teams are consistently recording 25 to 50 full installations per shift—an unmatched rate in the industry.
- Imediatly after installing the Anchor Screw, the post is leveled, brackets attached and Arco installed.

SCAN ME

Rapid Route Installation Video

Watch our Rapid Route installation in action. This short video demonstrates just how quick and straightforward it is to install our system — typically in under five minutes per unit.

Project Report

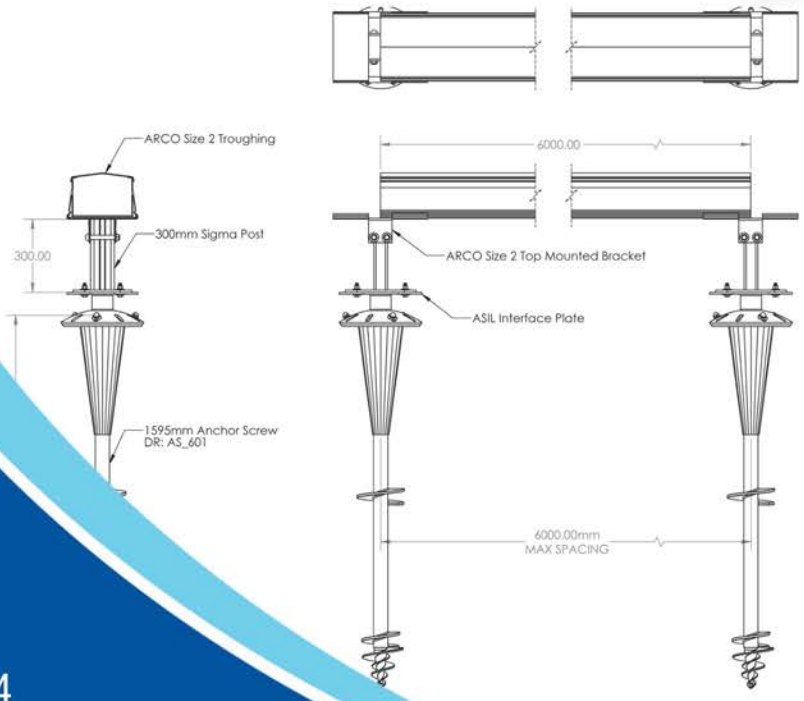
CONSULTANT/ENGINEER:	CLIENT
TRU East	Network Rail
OTHER PARTNERS	**CONTRACTOR**	**INSTALLER**
Scott Parnell	J Murphy & Sons Ltd	J Murphy & Sons Ltd

Issue

The Castleford section of the Transpennine Route Upgrade (TRU) required a durable, lightweight cable troughing system that could be installed efficiently on a steep embankment near the River Aire. Traditional concrete foundations were impractical due to installation time, environmental impact, and accessibility constraints. A sustainable solution was needed to reduce disruption and carbon emissions while ensuring long-term structural reliability.

Testing

To ensure the feasibility of the proposed solution, extensive material assessments and system trials were conducted. The ARCOSYSTEM®, made from pultruded glass fibre reinforced polymers (GRP), underwent durability and environmental testing to verify its resistance to extreme weather conditions, from -40˚C to +80˚C. The screw pile anchoring system, supplied by Anchor Systems, was evaluated for load-bearing capabilities and stability, particularly on uneven terrain. The testing phase confirmed that this combination would offer enhanced flexibility, reduced installation time, and superior longevity compared to traditional alternatives.



Solution

The Rapid Route ARCOSYSTEM® installation was successfully implemented, utilising Anchor Systems' screw piles to eliminate the need for traditional concrete foundations. The elevated ARCOSYSTEM® cable containment system, supported on posts spaced up to six metres apart, significantly streamlined installation. The system's bespoke steel bracketry provided adjustable height and directional flexibility, ensuring smooth navigation along the embankment. This solution not only optimised installation efficiency but also contributed to reducing carbon emissions by minimising material waste and site intervention.

Castleford TRU

Rapid Route ARCOSYSTEM® Installation

Result

The 1,000-metre installation was completed on time with minimal disruption. The lightweight and adaptable system significantly cut down installation hours and carbon footprint, receiving positive feedback from J Murphy & Sons Ltd. By integrating innovative materials and efficient anchoring, the project successfully met all structural, environmental, and operational objectives, reinforcing Anchor Systems' commitment to sustainable railway solutions.

Project Report

CLIENT

Hither Green Signalling

CONTRACTOR

Rail UK

SUB CONTRACTOR

Balfour Beatty

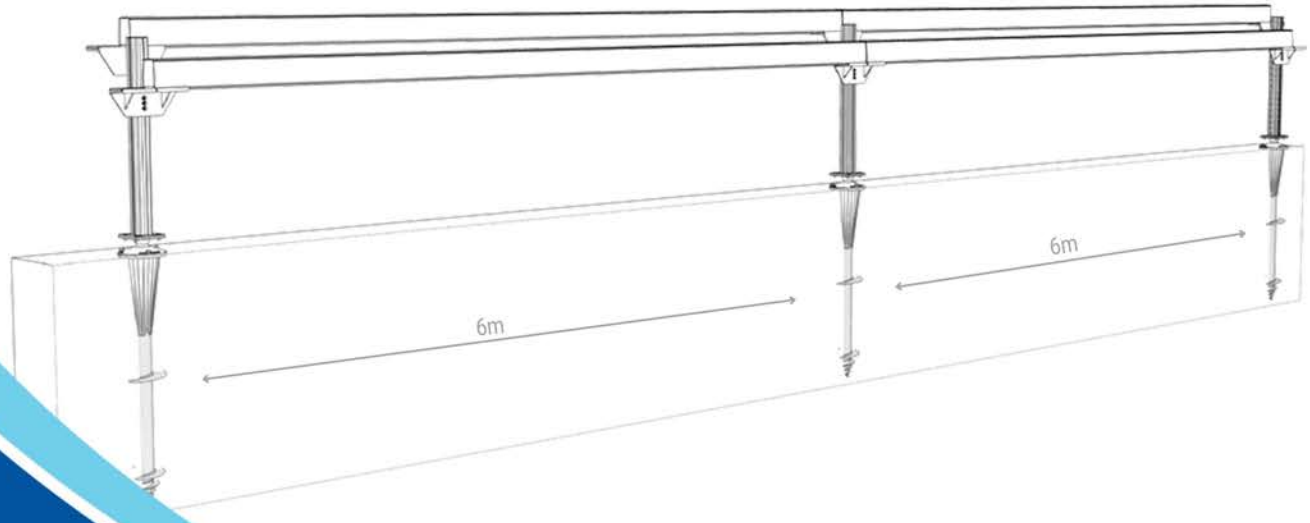
At the commencement of the Hither Green Signalling Renewal project, our team recognised the opportunity to improve both the efficiency and sustainability of our standard construction materials and methods. Through introducing the Anchor Screw foundation system, we have promoted a 25x25 initiative through reducing on-site activity, realised cost savings and contributed significantly towards delivering in-line with Balfour Beatty's Sustainability Blueprint.

The Measures

The Anchor Screw foundation system replaced the need to use cast in-situ posts to support elevated cable route, although the system can be used to support a variety of different super-structures. The steel screws are driven into the ground from the surface, following a ground clearance check which is completed using 3D Ground Penetrating Radar. The hemi-spherically domed heads then allow for up to 7 degrees of vertical alignment correction, in the case the screw has been knocked off alignment during driving.

As the system had not been used on Network Rail infrastructure previously, it was crucial to work with our Client,Network Rail, to ensure full buy-in throughout design and construction. The subsequent approval we received clearly shows both the collaborative relationship between client and contractor, and the obvious value this system could provide.

Authorisation for the use of the Anchor Screw system was obtained from Network Rail. This is the first time the system has been installed on Network Rail infrastructure. Approval was gained and the system was installed on the Hither Green Signalling Renewals project resulting in multiple benefits for the project and our customer.



Hither Green

Result

The Anchor Screw system was installed for the first time in February 2020. During the first shift 124 screws were installed in five hours, enough for 744m of elevated route, with no on-track plant required and zero accidents or incidents. A summary of benefits can be seen below:

- 60% time saving on foundation installation
- 40% cost saving of £369/m to £221/m (derived from man hour savings, elimination of plant requirements, reduced possession requirements)
- 73% embodied carbon reduction on materials, equivalent to 13920kg CO_2e and 89.4% material saving
- Zero on-track plant and zero water consumed
- UK manufacturing and local materials, eliminating mainland European transportation miles
- No noise or HAVS risk

Project Report

CLIENT

Network Rail

CONTRACTOR

Colas

INSTALLER

Colas

Requirement

As part of the SRSA Reliance Mid Cornwall Metro upgrades, a section of rail track in Gossmoor required urgent attention. The original concrete troughing method used for cable containment had proven unsuitable due to persistent water runoff from the adjacent country park. This led to regular flooding, jeopardising the safety and reliability of the railway infrastructure.

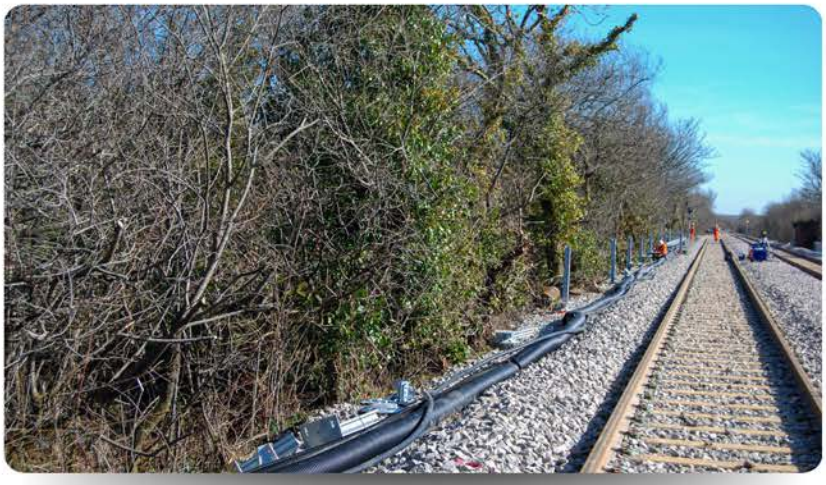
To mitigate the issue, the client Colas, on behalf of Network Rail, needed a Cable Route Management System that could elevate critical high-voltage and power cabling above the flood-prone area. The initial requirement was for 120 metres of system coverage, which was later extended to 150 metres due to the speed and ease of installation observed on site.

Solution

Anchor Systems provided a Size 2 Rapid Route Cable Route Management System to meet the challenges of the site. This modular, elevated solution proved ideal for installation in difficult terrain and delivered several critical benefits:

- Flood Mitigation: The elevated design prevented future water ingress and damage to the cable infrastructure.
- Speed of Deployment: A one-day onsite training session was followed by just two installation days, including loading of cables.
- Adaptability: The system's modularity enabled on-site adjustments, with the initial 120-metre plan expanded by an additional 30 metres without design changes.
- Minimal Ground Disturbance: Using Anchor Systems' ground screw foundation technology, each bracket was quickly and securely installed without the need for excavation or concrete.

This installation demonstrated the practicality of the Rapid Route system for challenging environments, offering a fast, efficient, and durable cable management solution for the rail sector.



Gossmoor Newquay

Rapid Route

Project Report

INSTALLER
J Murphy & Sons Ltd

CLIENT
Network Rail

CONTRACTOR
J Murphy & Sons Ltd

INSTALLER
J Murphy & Sons Ltd

Requirement

During the construction of the new Beaulieu Park Railway Station, J Murphy & Sons Ltd faced a significant engineering challenge in relation to their cable route management system. While approximately 70% of the site was fitted with standard ARCO troughing, one section of the embankment proved problematic. The steep slope and unstable ballast caused the original concrete troughing to slip, creating both safety concerns and long-term durability issues. It was critical to source a system that could remain structurally sound on a gradient and offer a secure route for cabling across difficult terrain. A rapid, reliable and slope-stable cable route management solution was urgently required to ensure continuity of the project and long-term system resilience.

Solution

Anchor Systems and Scott Parnell provided the answer with the supply and installation of their elevated Rapid Route Size 1 Cable Route Management System. This system is specifically designed for environments where traditional ground-level troughing is unsuitable, such as steep or unstable embankments. Over 100 metres of Rapid Route were successfully installed within just two days, demonstrating both the speed and efficiency of the system.

To support the installation process, Anchor Systems delivered tailored training to Murphy's installation team, both at their yard and directly on site. Given the sloped working environment, operatives were fitted with safety harnesses secured to the rail throughout the installation. The elevated troughing was securely anchored into the slope, providing a long-lasting and stable solution where concrete options had failed. This bespoke approach ensured the safe routing of cables while maintaining access for future maintenance.

Beaulieu Station

Rapid Route

Downloads & Resources

Welcome to our Resources hub — your go-to destination for product insights, installation support, and technical guidance.

Whether you're planning a project, specifying a solution, or already on-site, these materials are here to help you work smarter and more efficiently. From technical product pages to real-world demonstration videos, everything here is designed to give you a clearer understanding of our systems and how they perform in the field.

Rapid Route Product Page

Discover how our Rapid Route range is transforming infrastructure installation. Designed for speed, simplicity, and long-term performance, these foundations are ideal for a wide range of applications — from rail environments to roadside infrastructure.

SCAN ME

Rapid Route Installation Video

Watch our Rapid Route installation in action. This short video demonstrates just how quick and straightforward it is to install our system — typically in under five minutes per unit. A great resource for contractors, site managers, and engineers alike.

SCAN ME

Anchor Screw Product Page

Learn more about our Anchor Screw solutions — a concrete-free alternative for fast, secure ground anchoring. Installed using portable equipment, these systems are ideal for railways, signage, and temporary structures.

SCAN ME

Contact Us

Have a project in mind or need technical advice? Our team is here to help.

Whether you're looking for product recommendations, installation guidance, or a custom solution, we're happy to assist. At Anchor Systems, we pride ourselves on offering expert support and fast, responsive service.

Anchor Systems (International) Ltd

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www.anchorsystems.co.uk

ANCHOR SYSTEMS (INTERNATIONAL) LTD

Rapid Route
The Complete Solution

Cable Route Management System

IN PARTNERSHIP WITH

Scott Parnell

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