Suttle Projects

Structural Integrity Southern Framework

Ensuring Resilience of Rail Masonry Structures

Overview

The Structural Integrity Southern, (SIS) Framework was established to provide preventative and emergency maintenance of Network Rail infrastructure assets across the Southeast routes in Kent and Sussex.

The primary deliverable of the SIS Framework is to maintain the networks masonry structures including bridges, tunnels and arches. The work activities also incorporate other asset areas including the maintenance of and providing improved and safer access to signal structures. Six suppliers were appointed to the Framework.

The Suttle Projects approach was to simplify projects by focusing on creativity, reliability, productivity and sustainability in doing so blending innovation and experience to deliver better solutions with more certain outcomes.

A testament to this approach is that 313 of 579, 54% of all SIS Framework projects, were awarded to Suttle Projects, totalling £1.8m. Thereby delivering more projects and providing better value than all the other SIS Framework suppliers combined.

Solution

There are typically 30 to 50 remits issued every month via Network Rail's Polestar System for sites to be visited and establish detailed scopes and access requirements. Suttles engage both with our internal specialists and in collaborative discussions to refine solutions and seek efficiencies through our project simplification processes. Quotations are prepared around the pre described rates within the framework contract, project values can vary from hundreds to tens of thousands of pounds. The objective however is always the same find the very simplest, safest, most efficient and effective solution.

As part of our solutions, we are responsible for all contract planning and the arrangement of track access to complete the works. Our professional services also include the deployment of an in-house and highly experienced RISQS accredited temporary works design team.

The range of technical solutions are extensive and Suttle Projects are accountable for inspecting the masonry and brick structures.

This site investigation remit includes identifying those details varying from available written or photographic reports through to taking samples of existing materials to assist in defining the project scope and solution development, clearing and inspection of drainage assets to survey their condition and serviceability.

An example of project simplification is using our own in-house multi-skilled operatives. In some instances, we can complete a survey remit and carry out a desired renewal within the same working window saving significant track access and mobilisation costs, supported with effective real time communication solutions to agree and authorise works. The subsequent efficiencies have been welcomed by Network Rail representatives and documented both as a cost variation and an efficiency, given we were already in position with the right skills and authority to complete the work.

A fundamental factor in our delivery solution for the SIS framework and improve business resilience was to establish a geographical presence in the area, with an office in Polegate, East Sussex, staffed with rail specialist employees. As well as an office, we

have an operational yard where we can store and service vehicles, store materials for use on ongoing works, and maintain equipment and tools.

Set up with the primary purpose of serving Network Rail, this facility allows us to work as efficiently as possible, minimising waste and travel. We have installed electric vehicle charging points, supporting our wider business strategy of reducing our carbon emissions and acting in as sustainable manner as possible.

This office is linked into the business' wider IT infrastructure, and directly to our HQ in Poole, itself servicing Network Rail projects within the Southern region. As a result of this experience, capability and infrastructure, we have been awarded Lot 8 Buildings and Civils of the Network Rail Southern CP7 and CP8 Minor Works Framework.

Outcome

Our simplified approach to project scoping and management has delivered many benefits. The majority (circa 70% of the 313 No completed projects) of work has been masonry and brickwork remedials, generally carried out within possession working that we had arranged ourselves. We directly employ bricklayers and seek to retain them beyond the SIS framework to assist our future CP7 and CP 8 efficiencies offering.

The next most common item was renewals of existing signal markers and other signage. This followed a pattern of reactive but low complexity work that required simplification and strong tracking from both parties. This resulted in the high level of client interaction a trait highlighted by Network Rail as one of their most desirable in a supplier.

Other outcomes achieved were mesh repair and security ladder improvements beneath London Blackfriars station carried out in normal working. We cleared varying drainage systems (catchpit, weep holes) and carried out remedial work to retaining structures.

The most significant example of this was in Battersea, London where an existing sheet pile retaining wall required weep hole clearance and a photo report of the cleared retaining structure.

This was carried out in very restricted short duration working windows. We also constructed a 200m long GRP Handrail and decking pathway on top of an existing decking structure. Our internally trained and competent In-House design team added value to this process by providing calculations on the surcharge caused by allowing traffic to walk on the existing structure and directly expedited the project's progress.

Equipment is an important area of strategic consideration, developing our business in an economically sustainable way is going to be important to client outcomes in the longer term. To this end, we invest in our own high-quality equipment to promote longer term economies, but also to offer effective control of its use and maintenance. This plan extends from larger items like our own specialist transport fleet and welfare vehicles, through site plant like dumpers and mini excavators, to power and hand tools. Service and maintenance are rigorous in accordance with our RISQS accreditation and Principal Contractors Licence. Where necessary we use hire companies to provide fewer common items or during temporary periods of high work volumes.

Our model seeks to balance self-delivery with a healthy supply chain. For regular tasks, like light de-vegetation and brickwork repairs, we train and equip our own teams. This promotes efficiency and a high level of management control. Other tasks lend themselves to supply chain partners, where less consistency of workload is found, and a high degree of speciality is needed. Rope access work is a good example.

The core experience of our own teams can be found in civil engineering and groundworks skills, enabling us to self-deliver excavation, ancillary earthworks, creation of small retaining structures, and minor surfacing repairs in blacktop and concrete.

Basic skills in groundworks and civil engineering are reinforced with extensive training programmes. As a business we have adopted the gold standard of universal CSCS and CPCS card holding for our teams. Basic site safety and skill levels in plant operation are enhanced with other training, incorporating use of temporary platforms, service location and many other ancillary skills.

In the execution of this SIS framework, we have strived to combine the efficiency of an SME, the skills of a self-delivery ground works team, and the high standards of a Principal Contractor level rail sector business.

Through demonstrable strong performance on the Structural Integrity Southern Framework original remit, we also carried out renewals to signal structures in Kent and Sussex. There were around 70 structures, one specific structure in Hastings (TTH) included an older, still adopted asset, that required careful painting improvements and fabrication of certain structural elements that could not be renewed and needed replacing.

From this project, and many others amongst the 70, we gained increasing confidence, building certainty and applying lessons learned that have allowed us to expand our services provision into other substantial projects outside the SIS framework. For example, a footpath over rail project, full shot blast & paint within encapsulation completed for a Local Authority.

Simplifying Projects
Better more reliable outcomes

This proven Suttle approach to simplify projects and maximise the associated creativity, reliability, productivity and sustainability benefits has seen Suttle Projects rewarded with a 54% share of all SIS Framework Schemes.

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