



# FIDIC Awards 2015 Nomination Form

London Overground Capacity Improvement Programme (LOCIP)

June 2015

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## London Overground Capacity Improvement Programme

### Project details

Country: England, United Kingdom

City: London

Purpose: Improving capacity on London Overground

Year of completion: 2015

In operation since: 2014

Firm name: Sweett Group Plc

Name of CEO: Douglas McCormick

Address: 60 Gray's Inn Road, London

Postal code: WC1X 8AQ

Country: England, United Kingdom

Phone: +44 20 7061 9000

Fax: +44 20 7430 0603

Email: fay.dowson@sweettgroup.com

Name of contact: Fay Dowson, Marketing and Proposals Manager

Date and signature of CEO:



22/06/2015



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### Executive summary

Demand on the highly successful London Overground has grown fourfold in the last seven years. This massive increase in passenger numbers led to a Mayoral commitment to urgently increase capacity on the East London Line by lengthening trains from four to five carriages as part of the London Overground Capacity Improvement Programme (LOCIP).

### Project background

Since completion of the London Overground network in 2010, the rate of passenger uptake rapidly started to exceed expectations raising the prospect of future overcrowding and customer dissatisfaction. To address this risk, TfL, together with the Mayor of London committed to increasing the capacity of the London Overground network under LOCIP.



Boris Johnson, Mayor of London, is committed to increasing capacity on the London Overground to cope with passenger growth

The response to increasing additional capacity was to create longer trains, by converting all of the existing fleet of four-car units to five; and by improving service frequency on some of the London Overground routes.

To achieve the Mayor's objective timescale, having five car trains running before the end of 2014, measures were required to compress, what would normally be at least a five year design programme.

In order to accommodate these requirements, substantial modifications had to be carried out to the existing infrastructure across the whole London Overground network.

Key elements included:

- Platform lengthening
- Signal modifications
- Re-modelling of the existing train maintenance depot at New Cross Gate
- Provision of new train stabling facilities at Silwood near Surrey Quays and Willesden Depot.

In addition to procuring and administering the works, the project also required significant stakeholder engagement and management with London Boroughs, Network Rail, Train and Freight Operating Companies (TOC's and FOC's) as well neighbouring communities and businesses.

The works were undertaken on both TfL and Network Rail infrastructure, which had to remain live and operational during normal business hours. TfL and the Mayor for London had committed to the existing train services being fully maintained without any degradation of service levels during the upgrading works.

The works were procured through a combination of the NEC (Option A and Option C) contracts, various Network Rail regulatory agreements and bespoke stakeholder agreements.

### Services

Sweett Group was engaged by TfL London Overground to provide full pre and post contract commercial management services. The activities carried out included:

- Cost planning, estimating and benchmarking
- Development of procurement and contracting strategies
- Procurement of all work packages
- Risk and change management
- Project reporting
- Post contract administration and final accounting
- Stakeholder management and negotiation of agreements (including supporting land take agreements and planning approvals).

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Working with supply chain participants to accommodate, encourage and embrace innovations, was a major benefit to the LOCIP Programme.

#### Innovation and added value

The project team identified and developed a range of added value options, which met TfL's objectives in terms of functionality and performance standards, whilst encouraging the Design Team to be bold and innovative. Collectively, the project team continued to extract best value from the supply chain through:

- Intelligent working
- Effective methodology
- Sequencing
- Strategic procurement
- Packaging of the works.

To add synergy to the project, lessons learnt assessments were taken on board from previous programmes and introduced to the project arena for discussion at the earliest opportunity. This encouraged other team members to contribute and add value to both the process itself and the development options.

A key opportunity on any project for cost savings, risk reduction and an improved public image, is the reduction of the Construction Programme. The programme was sensibly reduced, by using intelligent methodology and sequencing that had a positive effect to the project.

Stakeholder workshops were implemented that allowed the project team to explore and understand the key issues. The workshops also helped to understand the functionality and usage of each of the work sites, passenger flow patterns, key events and other major works taking place in the area during the works programme.

The public and station staff were unaffected and unaware of the works taking place during their journey through the station. Innovation and intelligent programming solutions focused on the overall strategic approach to this project that provided the greatest benefit to TfL.

TfL is becoming more focused on alternative and additional sources of income to support the more traditional forms of Government funding and fare revenue previously relied upon. As TfL evolves, new opportunities are emerging for teams to identify and explore additional funding sources or at least opportunities for future development. The project team identified a number of alternative income opportunities that TfL would benefit from, whilst ensuring no compromise on the primary purpose of London Overground, which is one of the UK's most reliable train operators. Alternative income identified would be generated from land sales or exchanges, land redevelopment and developer joint ventures to explore development opportunities.



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The project teams approach was about building and contributing to a team where the sole aim was to exceed TfL's project and business objectives.

#### Continuous improvement

The project team continually strived to improve all areas of the programme, which were tailored to meet the needs of TfL. This proved to be a useful technique in maintaining standards and efficiencies throughout, so that lessons learnt could be included in future projects.

Continuous improvement on LOCIP was monitored against specific service level agreements through the development of KPIs, which were measured on an objective basis to assess the extent of continuous improvement and customer satisfaction.

As a consequence, this developed an even closer working relationship with TfL, as well as building up a detailed knowledge of their portfolio and working practices. This continual feedback loop enabled the project team to make changes/improvements on how we worked in conjunction with TfL.

The scale and complexity of LOCIP needed the best possible team and structure in order to succeed.

The main principles applied to the development of LOCIP included:

- Providing clear focus on delivery
- Enabling effective programming, project communication and delivery by promoting integrated team working across the delivery organisations
- Empowering rapid decisions, communication and action by operating a lean and flat structure
- Defining clear organisational interfaces between London Overground, projects and the project team, including consultants and contractors without the need for potentially costly man marking
- Utilising full capabilities of the project team, ensuring knowledge transfer was the best value that could be sourced. This enabled the project team to optimise their own performance, which led directly to greater project performance.

The project team was committed to the core cultural values which flowed throughout the lifecycle of the project. This is self-evident by the way the project team performed. They did this by:

- Collaborating as a team on the LOCIP Programme
- Delivering high performance and best practices
- Driving efficiency and effectiveness in all activities, ensuring value for money
- Demonstrating teamwork within the supply chain
- Fostering an innovative culture and value added methods, enabling quality delivery.

The project team delivered LOCIP on time and within budget.



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Transparency and integrity came hand-in-hand, therefore cascading and practicing the project teams working ethos, made the project a phenomenal success.

#### Collaborative Working

As this programme was highly complex, fostering a culture of trust with the client and stakeholders was an essential element of the project success. Early appointment by TfL allowed the project team to challenge traditional procurement behaviours by enabling early collaboration and innovation within the whole supply chain – client, designers, commercial, tier 1 contractors, and tier 2 suppliers. The collaborative intent was devised to engage early market involvement that could produce time and cost savings and encourage innovative thinking to help design, plan and deliver the work more efficiently than would traditionally have been the case.

To achieve the client’s objectives, the project team understood innovative collaboration and a sense of collective responsibility needed to be at the heart of LOCIP’s execution plan. By proactively engaging and focussing directly on the client’s core challenges enhanced the benefit of the business case, which also included the social value of the scheme, not just the cost to build.

Processes and tools supported the development of the collaborative culture such as shared information platforms, open book reporting and costing, leaner working processes, waste elimination and commercial arrangements that facilitate collaborative working. Collaborative working on LOCIP was supported with robust governance and assured processes which satisfied the protections and responsibilities required by TfL’s corporate governance regimes.

To achieve best value, early in the project the commercial team were embedded in the designer organisation, reviewing and commenting on the costing evolving designs.

‘Best Practice Forums’ on the LOCIP Programme, were regularly held at key stages throughout the project. These have generated many new initiatives which now form part of a core service.

Collaborative working methods form an essential part of everyday life at Sweett Group

Douglas McCormick, Sweett Group



Simon Offredy, Project Director on LOCIP, proudly holds the Greatest Contribution to London award at the London Civil Engineering Awards 2015

LOCIP recently featured in ‘The Partner’ which focussed on Collaborative Working. Following this feature, LOCIP won the ‘Greatest Contribution to London’ award at the London Civil Engineering Awards 2015.

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The main emphasis was placed upon the prevention of pollution, reduction of emissions, conservation of resources and minimisation of waste production. Environmental laws and regulations were recognised as setting the minimum standards of environmental performance.

#### Sustainability

Environmental objectives were set to improve performance by taking action in areas under the project teams control or influence.

These included:

- Investigating ways of minimising resource consumption
- Reducing waste and encourage re-use / recycling where possible
- Developing environmental requirements for on-site client offices for co-located staff working on LOCIP
- Meeting and, where deemed practical, exceeding relevant regulatory requirements and to minimise any adverse environmental effects caused as a result of the project teams activities
- Ensuring that those who had the potential to significantly affect environmental performance received appropriate training
- Promoting an awareness of environmental objectives to TfL throughout the broader activities.

On conducting activities on LOCIP, encouragement was cascaded amongst all stakeholder, resulting in a better quality of passenger experience. The project team achieved this by:

- Raising awareness, providing knowledge, tools and supporting all levels of personnel, helping them to work with TfL to enhance sustainability issues at all stages of the life cycle
- Investing in research and developing capability to enhance performance. Examples include, modelling software for appraising design, technologies and construction techniques
- Liaising closely with other professionals, technical and commercial, with regard to identifying and managing sustainable development outcomes at all stages of involvement
- Advocating the inclusion of sustainability requirements within project procurement and appointed processes that was undertaken on TfL's behalf

- Promoting the use of components which had a high recyclable content that could be re-used and/or recycled on final disposal
- Undertaking on-site remediation of the spoil from an old landfill site at Silwood
- Considering programmes for replacement and substitution of materials and components with less environmentally damaging alternatives.

Particular attention was given to reducing embedded carbon, energy use, waste and pollution on the construction and management of the built environment.

The project team carried out business activities with due regard to the environment, and acknowledged best practice and legal obligations. The project team were fully committed to continuously improving environmental performance.





“The London Overground is a high performing railway and one of the biggest challenges faced was to deliver the project whilst minimising the impact on day-to-day operations. It’s notable – and a clear benefit to passengers – that there were no unplanned closures or delays as a result of LOCIP, something which is testament to the close working of all project partners and stakeholders.”