

## Case Study - Barking Rail Terminal Upgrades



'As suppliers of railway infrastructure services, we aim to overcome the challenges set by a rapidly changing railway environment. We have a continued commitment to exceed our clients' expectations by offering value-engineered and innovative solutions in a practical and efficient manner'.

## Scope Summary



The scope of works at this and other DB Cargo facilities ranged from upgrading tracks to maintenance and capital upgrades of associated infrastructure. Work was continually based on a low lead time, fast-tracked schedule to avoid disruption to business operations.

We have delivered multiple works packages for our client, demonstrating our ability to actively adapt from large-scale projects to fast-tracked lower value delivery packages.

MPH undertook capital upgrade projects at:

- Doncaster – New maintenance shed and inspection pit
- Cambridge – New sidings
- Ipswich – New unloading bay

MPH were awarded the scheme as Principal Contractor to convert an existing lorry park and redundant storage units and offices into a Twin Rail Siding with direct connection to HS1 for transportation of new cars, delivered by rail from Europe for transfer onto road going transporters. As well as carrying out works, our project teams were also responsible for overseeing major sub-contract packages.



MPH undertook the following packages of works in conjunction with key delivery partners:

- Asbestos removal
- Rail track installation
- Security palisade fencing
- New office block installation
- Demolition and removal of an existing 3 storey steel framed building
- Civil installation of level crossing and elevated rail sidings
- Repairs and partial construction of an existing lorry park to provide parking / storage for 1400 cars and direct access to road transporters
- Drainage and ducting alterations
- Electrical lighting and CCTV installation
- New gatehouse and associated barriers
- Armco barriers and anti-ram bollards

## Our Approach

We take a whole-life approach when considering the construction risks that may occur as part of our project delivery activities. We look at safety in design, construction, operation and maintenance, aiming to mitigate risks, remove them entirely or manage them to an acceptable level.

**Early Contractor Involvement (ECI)** enabled the MPH team to consider potential risks connected to working within a live rail environment and implement safety measures from our extensive experience to carry out controlled works safely.

We are a preferred partner for our client due to our agility; we undertake a wide range of works packages and instill the same high standards of care and professionalism regardless of scope and budget. This amenability to cater for all our clients' requirements makes us the go-to resource for complete portfolio execution.

Our Projects ranged from £10,000 to £100,000+ and from days to many months in duration.





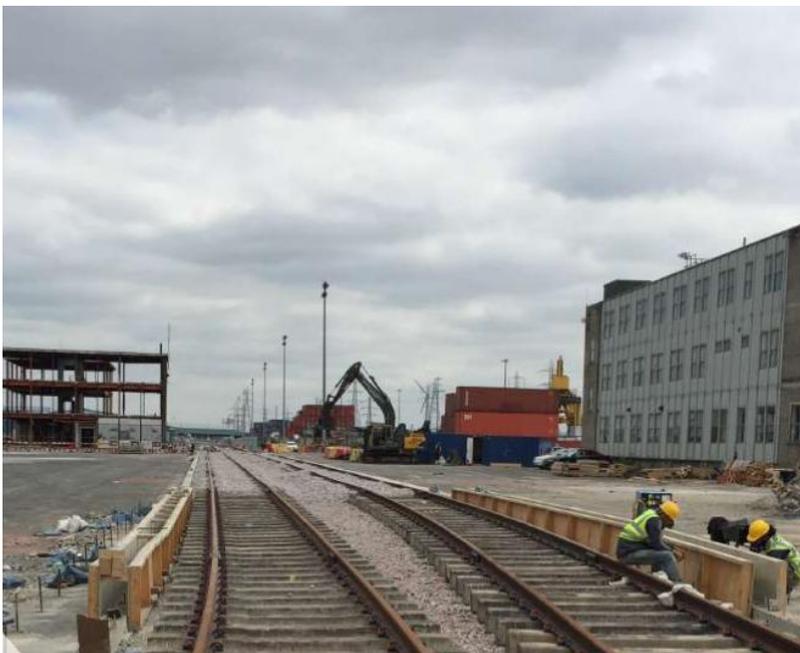
## Challenges & Solutions

### The Challenges:

- Maintaining operational functionality to a major live rail to road transfer hub.
- Providing phased execution of scope to upgrade facilities over a large footprint with multiple existing ground surfaces and conditions to provide a maintenance-free, durable and consistent heavy vehicle capacity surface.
- Construct seamless transitions between various existing hardstanding substrains.

### Our Solutions:

- MPH utilised multi-skilled resources that can demolish, excavate and install all services and structures with the right skills to place multi-surfacing options such as paving, concrete aprons and tarmacked solutions.
- Under the cover of our project governance, MPH managed specialist subcontractors such as asbestos removal services and other specialty M&E trades.



# Added Value

## Re-Use – Recycle

- MPH are champions of recycling aggregates. On various business park projects, we broke up, crushed and graded former foundations and masonry from brownfield projects, including the Triumph factory in Coventry, to produce permanent work formation materials, mitigate waste production and reduce the carbon footprint for haulage movements.
- Around **20%** of the aggregates we use come from recycled sources, contributing to sustainability requirements for future projects.
- As part of our works carried out on the West Coast Mainline upgrades for Network Rail, we devised a wash facility to decontaminate rail ballast for re-use in lieu to wasting importing virgin ballast. This solution had a significant impact, generating cost savings to the overall project budget and mitigated the requirement for unnecessary road movements and high capital costs for tipping and import fees.

## Noise and Vibration

- Our comprehensive range of noise and vibration monitoring capabilities include prediction, measurement and the control of both environmental and personal exposures to noise and vibration. This allowed us to carry out the works with minimal disruption to our client's operational network and day to day business.
- Examples of this are the use of Giken piling methods and the use of HAVS monitoring hand vibration baseline reports for vibrating and concussive hand tools.

## Health and Safety

- We operate in some of the most high-risk working areas and therefore safety is at the core of our activities.
- We regularly exceed our very highly positioned safety KPI objectives and strive for continuous improvement. Reducing safety related incident statistics is the key parameter, but our continuously developed processes also promote overall wellbeing and increase our productivity, reducing the project's overall risk profile.

## Early Contractor Involvement

- MPH regularly introduce cost saving elements and add value. On high volume scopes such as concrete hardstandings or subgrade installation – any unit rate improvements such as the use of recycled aggregates, utilising lime stabilisation to clay sites or incorporating early permanent works to replace high maintenance temporary works platforms makes a significant impact to the bottom line through scope elimination.

