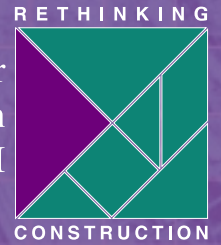


- development
- implementation
- PARTNERING the supply chain
- PRODUCTION of components

PROJECT 185

Movement for
Innovation
M⁴I



NOVEMBER 2000

19 day blockade at Proof House Junction

Alliance team eradicates bottleneck

Modernising an ageing railway sometimes demands a complete shutdown to make radical changes. The North Midlands Alliance has earned the acclaim of the West Midlands Passenger Transport Authority's Chair Councillor Worrall who says: "Congratulations on the awesome way in which the Proof House Junction remodelling was planned and carried out." The £36m project just south of Birmingham New Street station was allowed just 19 days complete possession to reconstruct this critical junction of four main routes.

Alliance project manager Mark Cutler of Carillion underlines the difficulty of working on a live railway: "With 800 trains a day through Proof House Junction and only four-hour closures on Saturday nights, safe access for enabling works is incredibly limited. So we have to plan thoroughly and hit it hard." Key to the success was Railtrack's decision to abandon adversarial procurement in favour of an alliance approach, partnering with designer and signalling contractor WS Atkins and principal contractor Carillion. Cutler is pleased with the results: "The Alliance culture achieved cost savings, assured delivery and provided excellent quality."

Tony Fletcher, general manager of Railtrack's West Coast Route Modernisation programme agrees: "Not only have you removed one of the region's worst bottlenecks but you have also delighted our customers."

Benefits of the Alliance

Getting a predictable result is the outstanding achievement of the Alliance. Cutler says: "It was critical that we completed within the negotiated 19 days blockade. Every extra day would cost us £600k in compensation so overrunning was not an option."

The remodelling was delivered **free of operational defects**, applying the Alliance's right first time philosophy.

Alliance partners **forecast savings of 1-2% of the target cost**, to be shared using a pain/gain formula.

Comparison with a similar sized remodelling project in Manchester Victoria two years before shows that the **accident frequency ratio** at Manchester was 3.96 reportable accidents per million hours worked. The

CASE HISTORY



"The Alliance culture achieved cost savings, assured delivery and provided excellent quality"

Mark Cutler,
Proof House Junction Alliance



Proof House Junction, Birmingham

Alliance's target was set at 0.45 but the result was zero reportable accidents. **Absenteeism** during the blockade was a mere 0.2% compared to 2.8% in Manchester.

The Alliance enjoyed a 50% **reduction in administration costs** by sharing facilities and resources and **reduced man marking** (duplication of roles) by 80%.

The Alliance incurred **penalties for possession overruns** that were about 90% less than in Manchester.

CREDITS

Client – Railtrack PLC
Alliance Partners – Carillion PLC,
W S Atkins Rail Ltd and Railtrack PLC

19 day blockade at Proof House Junction

The challenge

Past rail contracts had usually been short-term and quite adversarial with cost and time overruns, poor customer/supplier relationships, mistrust, disputes and communication breakdown. For the West Coast Route Modernisation, Railtrack resolved to bring the best in the industry together and do away with the adversarial attitudes. The North Midlands Alliance with Carillion and WS Atkins was formed for initially two projects, the £36m Proof House Junction remodelling and a £60m resignalling scheme in North Staffordshire.

What went wrong

Despite an 18-month design lead-in, the blockade itself was an enormous logistical challenge. The Alliance dealt flexibly with the usual resource shortages by sharing the partners' resources and getting support from other projects.

Problems that are peculiar to railway projects included signal sighting issues that caused late design changes and short night time possessions for enabling works that affected productivity and caused staff fatigue.

Implementation

There were three phases in the project:

1. Outline design, alliance formation and setting cost targets
2. Detailed design and construction
3. Handback, snagging, health and safety file and learning lessons.

The Alliance used team workshops to foster a no blame culture, used *best man for the job* principles to select key personnel in the joint management team and *located the partners in one facility* sharing office, network and administration resources.

Future development

Learning points for future rail projects include:

- Responding to the views of individuals on the Proof House Junction project
- Involving subcontractors even earlier
- Carrying over the nucleus team to enhance continuous improvement.

Innovation case history

This case history is a snapshot of just one innovation making construction in the UK more profitable for the supply chain and the Client. Further details will be found in the Knowledge Exchange or you should contact the Innovator directly or M⁴I.

How to make this radical change in your business

Alliance contracting will deliver results provided that you:

- Remember it is not an easy option
- Recognise that maintaining full accountability for the performance and commercial success of each partner cannot be done without disagreements along the way
- Understand the strengths and weaknesses of the partners, including your own organisation
- Assess the risks and have manageable solutions for foreseeable eventualities
- Control development of the design
- Above all, learn to trust your partners.

Contact the innovator

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Links

West Coast Route Modernisation: www.wcrm.co.uk
Railtrack: www.railtrack.co.uk
Carillion: www.carillionplc.com
WS Atkins: www.wsatkins.com

Related Topics



Visit the Construction Best Practice Programme:
www.cbpp.org.uk/cbpp/themes/theme_list.html

Our vision

is for the whole UK construction industry to create self-sustaining continuous improvement leading to **world class performance and better profitability**

Movement for Innovation
M⁴I



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The M4I Strategy Model applied to this innovation

