

Material Issues

DELIVERING SUCCESSFUL SUPPLY CHAIN SOLUTIONS

The LOGISTICS Business



LOGISTICS – THE NEW CORNERSTONE OF CONSTRUCTION

By Les Beaumont

Professional logistics and the integration of proven supply chain management principles within the project, are increasingly recognised as cornerstones of progressive construction practice in the UK.

Big-name nationals such as Canary Wharf Construction, McDonald's, Wilson James and Bovis/Clipfline are just some of the companies that have benefited from supply chain solutions which have improved operational efficiencies and increased overall project returns.

Many other construction companies, whether large or small or individual builders could also enjoy these benefits, reducing costs to their customers and yet improving profitability.

Supply chain optimisation in construction is fundamentally no different to retail and manufacturing logistics, with the same principles of getting the right material to the right place, at the right time and at the lowest price.

A key element is aligning suppliers' services to match your unique set of requirements. These include consolidation of suppliers, appropriate delivery frequencies and quantities. A just in time policy where materials are delivered straight to the point of use will minimise handling and site storage, dramatically reduce waste, and will eliminate the potential for materials to go astray.

McDonald's have seen on site construction time fall by as much as 75%, in part through the use of off-site production in a controlled environment. A key supplier, Meister Controls provides each restaurant with complete electrical packages that are pre-cut to length, individually labeled, packaged by building module and zone, all delivered to the



production site when required. Benefits of this system are threefold – time on site has been greatly reduced, installation is faster and simpler, requiring lower skills, and there is literally no materials wastage.

Effective logistics should keep staff engaged on tasks that are adding value to the building project. Simple examples that minimize essential but non-value added activities are to receive all materials clearly labeled, with each delivery pre-sorted by the supplier for easy checking, controlled movement of materials to point of use and easy selection by the end user.

A key objective is to reduce the amount of thinking time whilst the job is in progress. By taking a process view, most of the thinking should be done during the planning stages, and much of that thinking can be done through the use of appropriate software applications.

Zone Manager logistics software is being utilised to great effect at Canary

Wharf where 300 lorry deliveries of construction materials arrive on site every day with no waiting or lay down areas. The vehicle management system efficiently schedules cranes, hoists and overall co-ordination of site logistics resources.

As a result, deliveries for up to 33 tower cranes and some 40-hoist cars are allocated 'slots' by building logistics managers. Zone Manager also controls arrivals of these vehicles, which are directed to a nearby holding area until their scheduled slot to avoid congestion on site.

Supplies are promptly marshalled from the incoming holding area to an unloading zone and are transferred, either to ground level stores or transported by crane or hoist straight up to the work level. This procedure eliminates double handling in many cases and efficient scheduling ensures optimum crane and hoist productivity.

These same supply chain principles can be applied just as effectively within smaller scale projects. By setting supplier standards, scheduling deliveries, increasing the level of materials preparation and labeling, sustainable savings both of time and money can be achieved.

It is estimated that skilled craftsmen can spend as much as 15% of total project time checking deliveries on-site. Effective supply chain management takes care of the ordering, delivery and movement of materials, allowing skilled artisans to get on with what they're good at, ensuring a successful construction project.



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A new guide revealing the secrets of logistics in the construction industry is set to improve customer service, increase profits and reduce costs. The Logistics Business has compiled the guide for the Government funded initiative being run by CBP in a follow up to the Egan Report – 'Accelerating Change'. To obtain your guide contact the CBP by emailing helpdesk@cbpp.org.uk, telephone 0845 605 5556, fax 01923 664690 or as a download at <http://cbp.idnet.net/resourcecentre/publications/document.jsp?documentID=115821>

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FIXING IT FOR SFS

Automation Provides Faster, Flexible Single Site Solution

Swiss-owned International fixings manufacturers, SFS intec have invested £6 million consolidating two premises into one, integrating a state-of-the-art automated production and logistics operation.

The implementation of this solution has improved overall operational efficiency, flexibility and quality and has dramatically reduced costs through the consolidation of all operations at the 100-year old Leeds manufacturing site.

SFS has an annual turnover in excess of £20 million, designing, manufacturing and distributing specialist screws and hinges to the roofing, cladding and window fabrications industries. Products for finishing are imported from company-owned locations mainly in Italy, the USA, Switzerland and France.

Warehouse and Transport Manager, Ian Morgan says that the decision for investment was as a result of the increasing attractiveness of the UK market.

“Ensuring the success of this major business critical undertaking, we commissioned consultants, The Logistics Business, to review outdated distribution and storage operations and oversee the successful transition from manual to fully automated systems.

We had previously operated from Leeds and Cheltenham but focusing operations to our Leeds 15,000 square metre facility has increased efficiencies and consolidated costs.”

The Logistics Business carried out a detailed analysis of the business, preparing models of material flow and stock movement. From these results recommendations for a


centralised automated miniload solution and integrated in-house WMS (warehouse management system) were agreed.

“We are very happy with The Logistics Business solution. Operating from a dramatically reduced footprint area, reduced manual handling combined with a reduction in manpower has essentially allowed us to do more with less.”

“The nature of our business dictates an extremely flexible and rapid turnaround, with the need to receive, finish and despatch products on the same day. Typically 20 per cent of products are received as late as 4.30 pm, yet still need to be despatched on the same day.”

“Without automation there is no way that this could be done. Customer orders frequently change at the last minute and the system has been designed with this in mind, integrating our WMS with EDI links to suppliers and parcel carrier services. Accuracy has increased massively to 99.99% of picks.”

The final design combines pallet racking for goods-in and out and the bulk store, while a miniload handles slow moving, high value and very low volume products. The two-aisle system with horseshoe conveyors at each end and dual workstations enables operators to select products efficiently from both aisles, ensuring maximum throughput.

Ian Morgan concludes that the project has proved to meet all goals in terms of operational and financial advantages. “The Logistics Business collaborated with us throughout the project, ensuring the best possible outcome.” 



Friends in

By Les Beaumont



New Chapter for Oxford University Press

By Simon Tomlinson

The largest organisation of its kind in the world, Oxford University Press has a presence in over 50 countries and handles around 15 million books from the main two warehouses in Corby, Northamptonshire.

Located there for over 20 years, the advanced main warehouse had experienced piecemeal development and was facing increasing demand, especially around the September peak that kicks off every academic year.

"We had hit physical bottlenecks the previous peak season," comments Gary Marshall, Distribution Director at Oxford University Press. "We had a belief that the flows were not right and we wanted to accommodate future growth."

Throughput has not been the only change. The publishing industry is becoming increasingly complex in supply chain terms. According to Marshall, the charitable status

organisation handles stock line volume from many pallets to a single volume, with print on demand developing at a rapid rate. The operation also distributes in many ways to numerous different customers, from schools and academic institutions, to home deliveries, wholesalers and retailers. All from one site.

"We knew an outside resource was necessary and were looking for someone with maturity and experience in supply chain." The Logistics Business was chosen to provide a complete review of operations and support the necessary changes.


The result is a three phase plan. The first phase, now complete, entailed some stock redeployment and movement of flows away from a conveyor system that was struggling to cope.

The second phase, which has a payback of under 12 months, sees a change to the flow of

goods through the distribution centre, new flow racking, a replacement of the ageing conveyor system and more efficient picking and packing. According to Marshall; "this buys us capacity for another ten years at current projections."

Further major developments are designed to rationalise utilisation of space and bring in increased productivity improvements, and are seen as "a value case."

"We have got everything we asked for," adds Marshall. "The project hit timescales and came in on budget. The Logistics Business have given us an excellent strategic platform to work from."

Indeed, Oxford University Press is continuing to use the external expertise of The Logistics Business in a wider ranging capacity; to focus on their multiple supply chain operations. 



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Store



Major grocery stores are exceptionally adept at selling goods. Art has given way to science in order to maximise customer spend. If they have an achilles heel – it is logistics.

Roughly half of all supply chain costs are incurred at the store – in the so called last 50 metres – rather than in the 100's or even 1,000's of miles the goods have travelled from producer to packer to store delivery.

Examining the facts, this should be no surprise; supporting a 4,500 sq m store is a significant warehouse operation in its' own right, while the focus of the store is, quite rightly, on selling space. Store design often treats the 'back door' as an afterthought with little in the way of design standards resulting in odd shapes and sizes. At peak times, this area can be very congested.

Worse still, receipts have to be re-sorted

before they are taken into the store for the all important shelf replenishment. Yet store managers are often not versed in the art of efficient logistics.

It can take time for goods arriving to be placed on the store shelf, adding to congestion and increasing the requirement for roll cages and returnable crates – indeed the management of these returnable assets just adds to the complexity.

Oddly, it is further up the supply chain that some of the improvements can be made – with changes to the layouts and operations at DC level making life much easier in the store itself. Warehousing skills and principles, even staff, should be deployed at store level as the operations have a similar goal – the smooth flow of goods. The central management of returnable assets will also make friends of the hard pressed store managers.

Network Investigations

A New Government backed study will examine the efficiency and environmental impacts of Pallet Distribution Networks By Les Beaumont



A new Government backed study will look into the Pallet Networks sector. TransportEnergy BestPractice is continuing the development of key performance indicators (KPIs) in the freight industry by turning its attention to the rapidly expanding pallet

network sector for 2004. Supply chain consultancy The Logistics Business has been chosen to run the Government funded programme.

The outputs from this project are expected to benefit the whole industry by encouraging better


transport utilisation and reducing road miles, providing good news for both business and the environment.

Companies that take part can expect to see a number of benefits including creation of Key Performance Indicators (KPIs) for their transport operations, plus anonymous benchmarking of performance against others in the sector. These will highlight opportunities for efficiency improvements and also establish baseline measures of vehicle utilisation and efficiency against which future improvements can be assessed.

Using specially produced data gathering and analysis software, figures will be collected on the use of the transport fleets,

including vehicle fill, delays, empty running and fuel consumption. The Logistics Business will then produce benchmarks which could be used to measure their performance against other sectors.

The participating companies will be given full support before and during the survey period. They will then be given a detailed examination of their own performance, plus anonymous information allowing them to benchmark against their peers. A detailed report will also be published containing all the anonymous data at the end of the exercise.

We should see a general improvement in efficiency as a result of the information. 



FUTURE SCOPE

EDITORIAL BY MARK BENNETT


There are many unhappy returns on the way for supply chains. Inspired by the recyclability of modern cars, the EU has turned its attention to the electrical goods that are so much a part of our everyday lives. Manufacturers, retailers and importers of electrical goods will

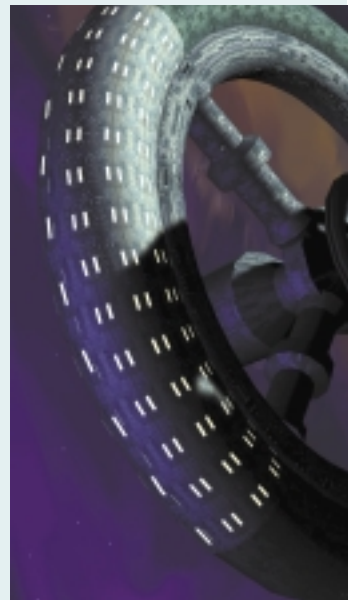
have to take responsibility for the disposal of old equipment, in an environmental-friendly way.

Although the deadline for organisations having to take back radios, computers, mobile phones and microwaves has yet to loom large on the horizon, the long term effects will be profound and will eventually

influence product design. Yet it is fundamentally a supply chain issue. Forward thinkers are not about to wait.

Even if the Waste from Electrical & Electronic Equipment Directive has yet to be formally passed into UK legislation, its' never too early to act like a logistical Boy Scout and be prepared. Some distance sellers are already well versed in the art of handling returns – yet the problem is about to get a whole lot bigger.

DC's will have to handle far more than ever before. Retail stock rooms will need to find new levels of organisation. Joined up thinking and communication will be needed to keep your head above water. 



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