



London Bridge Best Practice



Case Study Title: Effective Waste Management - British Gypsum

Month/Year: October 2015

Key Benefits

- ✓ Reduction of waste to landfill
- ✓ Cradle to cradle life cycle of a product
- ✓ Financial advantage by avoiding landfill tax
- ✓ The first Costain project to implement this bespoke process. Case study can be replicated across all project sectors

Objectives and Targets

- ✓ Objective 18H SDS – All projects to divert at least 90% of waste from landfill using the waste hierarchy
- ✓ To continue to drive resource efficiency throughout Costain and the supply chain

Overview

At London Bridge we are committed to the sustainable use of resources and reducing/ reusing the waste produced on site. As part of our waste management plan, by using the waste hierarchy, we have achieved waste elimination and minimization throughout both design and construction phase before materials enter onto site. By using this technique, London Bridge currently holds a 98% diversion from landfill.

As part of the fit out to the Station Accommodation Block we are using plasterboard. Plasterboard is a particularly difficult material to dispose of. As of 2009, the Environment Agency, as part of Landfill Directive, stated that mixing small amounts of plasterboard with biodegradable waste was no longer allowed, thus removing the 10% guidance rule and so all gypsum based wastes must be disposed of only in landfills for non-hazardous waste, in a single cell, where no biodegradable waste is accepted. As anticipated, this increased the waste disposal costs of plasterboard for construction companies by a significant amount.

Taking this cost increase into account and building upon London Bridge's commitment to the sustainable use of materials, by working with our Subcontractor, Stortford-Interiors, who use British Gypsum to supply plasterboard, we were able to take advantage of their scheme that is dedicated to recycling and reusing its plasterboard waste products. They are the only manufacturer within the UK to lead with this.

Bywater's run this recycling service as British Gypsum's regional contractor whereby they collect the segregated 1 ton bags from our site and transfer it to the designated waste facility to undergo its stripping process.

The Recycling Process – Eliminating Cradle to grave

The plasterboard is collected into 1 ton bags supplied by British Gypsum. The waste is then collected by Bywater's direct from our site where a Waste Transfer Note is issued for it to leave site.

Once it has reached its waste destination, the plasterboard goes through a stripping process where all paper lining and other waste products are separated from the plaster board, leaving the gypsum core.

The core is then blended with additional natural gypsum to return it to a raw material that is readily available for quality testing before it can re-enter the manufacturing process.

The approved raw material is then re-used to make a variety of products that are sold again to construction projects.

This cyclical cradle to cradle process puts a holistic approach to sustainable resource management by re-using materials continuously rather than being put into landfill. By carrying out this process, resource extraction and waste production is minimized, if not eliminated.

This unique recycling scheme has in turn saved the project landfill costs whilst providing the opportunity for our waste to be recycled back into different products. To date, we have removed over 70 tonnes of plasterboard from site which would have equated to over £5700 in landfill tax had we not recycled this product with British Gypsum.

