



LONDON BRIDGE STATION
REDEVELOPMENT PROJECT

LONDON BRIDGE BEST PRACTICE

Material Use Plan

Overview

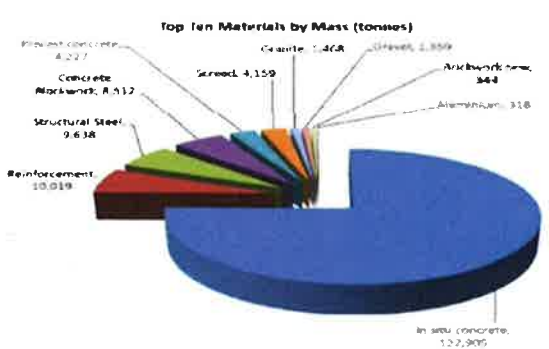
In order to examine the sustainability performance of our specified materials at London Bridge we have developed a comprehensive Material Use Plan (MUP). The MUP, a first of its kind, was initially drawn up at the end of GRIP 4, identifying common practice specifications for the key materials that would be used at London Bridge Station Redevelopment. It also proposed best practice specification. The best practice specifications for these materials were then broadly adopted in the GRIP 4 specifications.

The material use plan was further refined at GRIP 5 to allow specific products to be rated, and to be compared. This enabled the project to examine the most frequently used materials, their impact against 20 criteria and look at alternate products or improvements that could be undertaken. The information logged in the MUP provides details about the product manufacture, how it is transported to site, recycled content and disposal. Various specifications of concrete and steel are some of the primary materials that Costain have evaluated against the 20 criteria in order to review the material and supply chain performance.

Purpose

The MUP uses a "RAG" (red, amber, green) assessment, similar to a traffic light system to illustrate the sustainable performance of the material. The purpose of the RAG scoring system is

- To identify materials with the most impact and provide guidance and opportunities for material use improvements
- Allow contractor input to supply additional information and alternate products
- Identify opportunities in reducing supply chain environmental impact by allowing changes in procurement choice.



Working with the procurement team and our supply chain has enabled us to update the MUP with all major materials used on site during the

London Bridge Redevelopment. From the data obtained we have further established ways in which we can reduce our environmental impact.

Frequent MUP meetings are held at London Bridge Redevelopment programme between procurement managers and our designers to discuss any forthcoming activities where MUP information needs to be provided or any issues that have arisen regarding the materials performance. These minutes are then recorded and an action plan is developed.

The MUP plan summary produced to date for 2014 showed that 52% of the materials recorded were evaluated as 'green' therefore receiving a high rating of up to 12 points for products. The below table details our top 10 materials (to date) by category; displaying the materials with the highest percentage of embodied carbon.

	Material Type	Total (tonnes)	% of total embodied carbon
1	Structural Steel	10250	27.83%
2	Reinforcement	10314	25.62%
3	Concrete in situ (15/20)	110168	19.55%
4	Concrete pile grout	26221	6.05%
5	Aluminium	326	5.30%
6	Concrete in situ (32/40)	17602	4.06%
7	Granite	2337	2.90%
8	Escalators	24	1.53%
9	Screed	3775	1.19%
10	DPM	152	1.13%

Benefits

- Recording material use will aid the improvement in reducing the usage of unsustainable materials
- Enable the sourcing of more environmentally and ethically friendly materials
- Easily identify the sustainability performance of the materials using the visual scoring system RAG

Targets & Objectives

- CEEQUAL – material use
- London Bridge Sustainability Delivery Statement – using sustainable materials in a sustainable way