

Waste minimisation and management

In summary

- 1 The construction industry produces around 120 million tonnes of construction, demolition and excavation waste each year.
- 2 The Chartered Institute of Building (CIOB) believes the industry must halve the waste going to landfill by 2012, compared to 2008 levels.
- 3 There is a strong business case for all clients and contractors to adopt best practice in waste minimisation and management.
- 4 The CIOB supports and promotes the use of site waste management plans on all projects where the benefits outweigh the cost.

The issues

The scale of the challenge

The construction industry produces around 120 million tonnes of construction, demolition and excavation waste each year, but only half of it is recycled or reclaimed.

The Strategy for Sustainable Construction, launched by the Government and the Strategic Forum for Construction in June 2008, set a target for the construction industry to halve construction, demolition and excavation waste going to landfill by 2012. The CIOB supports this goal.

To achieve this target the construction industry will have to reduce the quantity of waste generated by the industry, as well as maximise the amount of material that can be reused or recycled. Industry will have to go beyond its legal obligations and ensure that best practice is implemented on all construction projects.

The benefits of reducing waste to landfill

The CIOB believes there is a strong business case for all construction clients and contractors to reduce the amount of waste going to landfill. These benefits include:

- reduced material costs;
- reduced disposal costs;
- increased competitive differentiation;
- increased performance against corporate social responsibility (CSR) objectives;
- lower carbon dioxide emissions; and
- responding to and pre-empting public policy, such as increases in the landfill tax.

Waste minimisation and management

Minimising the waste produced by the industry improves the overall efficiency of the materials used, without increasing costs. It is possible to reduce the overall creation of waste in the industry through:

- **Design specification** – particularly during pre-design, to influence the way the project is procured; and during construction, for effective communication and management of design changes.
- **Materials procurement** – minimising over-ordering, particularly by subcontractors who have the ability to make real reductions in the total volume of waste generated.
- **Planning engineering** – the development of a logistics plan at the early stages of a project to facilitate the most time-effective methods of construction and the efficient management of plant and labour resources. This will also help with the efficient delivery and storage of materials.
- **Offsite construction** – with the potential to reduce on site wastage by up to 90%.
- **Packaging** – reducing the amount of packaging waste generated, coupled with greater re-use and recycling.

Waste management however, involves identifying potential waste streams, setting target recovery rates and managing the process to ensure these targets are met.

On any project there are certain key waste streams that can offer significant savings, such as timber, plasterboard, packaging, concrete, inert materials or plastics. These key waste streams will differ between projects.

Best practice

The key tool for minimising and managing waste on a project is the Site Waste Management Plan (SWMP).

Implementing a SWMP is a legal requirement in England for all projects worth more than £300,000 but they should be implemented on any project where the benefits outweigh the costs. SWMPs help streamline multiple requirements and targets, and they allow contractors to demonstrate their achievement to clients and save money on future projects.

The benefits of implementing a SWMP have been found to be as much as:

- 15% less waste onsite.
- 43% less waste to landfill.
- 50% savings in waste handling charges.
- 40% saving on waste management costs compared to landfill disposal.

The CIOB recommends and supports:

- 50% reduction in construction industry waste going to landfill by 2012, compared to 2008 levels.
- The implementation of SWMPs on all construction projects where the benefits outweigh the costs.
- Strict enforcement of SWMP legislation, with inspections that are tied in with existing regulatory checks.
- Regular reviews of the content of SWMPs to ensure continual improvement based on collective experience.
- Promotion of the significant business benefits associated with waste minimisation and management in construction.



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