

Setting a requirement for recycled content

Using more recycled material in construction is a powerful way of making a contribution to sustainable development – diverting materials from landfill and using fewer natural resources.



Why take action?

- demonstrate performance against corporate responsibility and sustainability policies without incurring a cost premium;
- meet the requirements of planning authorities;
- provide a competitive edge through differentiation;
- show commitment to recycling and good practice;
- drive down the cost of waste management and recycling;
- satisfy the values held by employees; and
- respond to and pre-empt changes in public policy.

Who is taking action?

Construction clients, developers, public bodies and planning authorities are increasingly setting requirements for reused and recycled content on their projects.

Trailblazers include:

- British Land, Hammerson and Stanhope;
- Skanska;
- Marks & Spencer and John Lewis Partnership;
- Scottish Government;
- Northern Ireland Central Procurement Directorate;
- Welsh Health Estates;
- Yorkshire Forward;
- Defence Estates;
- Building Schools for the Future;
- National Offender Management Service;
- Raploch Urban Regeneration Company;
- Southmead and Hillingdon Hospitals;
- Leeds Metropolitan University; and
- Bristol, Leeds, Newcastle and Glasgow City Councils.

“Market research identified a range of mainstream construction products offering above-average recycled content at competitive prices. As a result, we had the confidence to set a requirement in our tender specification for 10% recycled content for the project as a whole without prejudicing our budget. This is important in helping the Council and its schools ‘walk the talk’ on sustainable development.”

Chris Wiseman,
PFI Project Manager,
Bristol City Council

What projects are suitable?

Recycled content can be increased for all forms of construction, including civil engineering, new build and refurbishment.

Will it increase cost or risk?

Increasing recycled content need have no impact on project cost or design and there is no need to use unfamiliar materials. Many of the products with higher levels of recycled content are already mainstream, high-volume products that are cost competitive with, and subject to the same testing arrangements as, equivalent products containing less recycled material.

WRAP maintains a database of the recycled content of commonly used construction products, available from

www.wrap.org.uk/rcproducts

Will it take a lot of effort?

Most of the potential to increase recycled content can be achieved with just the top 5 to 10 ‘Quick Win’ options for that project.

What are the common Quick Wins?

- bulk aggregates (sub-base, pipe bedding, fill, etc);
- ready-mix concrete (foundations, floor slabs, etc);
- asphalt;
- drainage products/pipes;
- pre-cast concrete products (paving, slabs);
- concrete tiles and reconstituted slate tiles;
- dense blocks;
- lightweight blocks;
- clay facing bricks;
- plasterboard;
- ceiling tiles;
- chipboard and other wood-based boards;
- insulation (floor, wall and roof); and
- floor coverings (carpet, underlay, etc).



Ordinary construction products, including bricks, often contain recycled content

“British Land now requires at least 15% recycled content in its major developments, and preferably 20%. Case study results show this should be both practical and cost-competitive.”

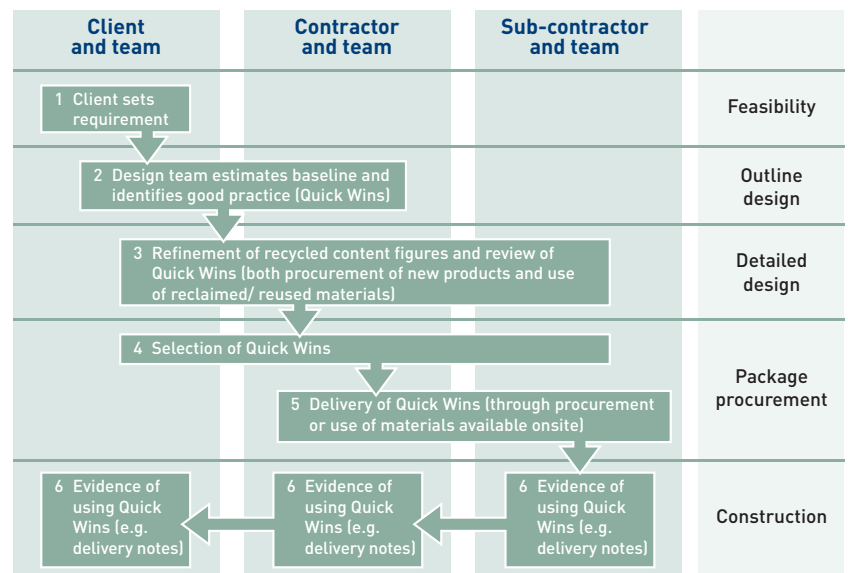
Richard Elliott,
Head of Construction,
The British Land Company plc

What level of recycled content is easily achievable?

We know from case study evidence that achieving 10% recycled content by value for the project overall (i.e. not per product) is widely achievable. Indeed, many buildings exceed 10% even without explicitly trying to increase recycled content. By adopting the most significant opportunities to increase recycled content through the use of cost competitive, readily available products, levels exceeding 15–20% are common.

What do I need to do?

The process of delivering higher recycled content begins with setting a requirement, as shown in the diagram below:



To set a requirement, construction clients and developers could include the following wording in project procurement documentation – specifying a minimum outcome and requesting good practice:

‘...at least 10% of the total value of materials used should derive from recycled and reused content in the products and materials selected. In addition, show that the most significant opportunities to increase the value of materials derived from recycled and reused content have been considered, such as the top ten Quick Wins or equivalent, and implement good practice where technically and commercially viable.’

While the 10% benchmark could be considered modest, its aim is to instil the process of measuring and considering recycled content within the project. The additional requirement to achieve ‘good practice’ ensures action even if the baseline level of recycled content for the selected design is shown to be greater than 10%.

Template wording is available from WRAP for use in corporate policy statements, project briefs and prequalification processes, and subsequently in tender, appointment and contractual phases in different procurement routes including both ‘traditional’ and design & build. See the detailed guidance document “Setting a requirement for recycled content in building projects”.

CASE STUDY

Prison buildings

The National Offender Management Service (NOMS) is the second largest government construction client in the UK after Defence Estates. Analysis of a major construction project at HMP Ranby showed that recycled content could be improved from 23% to 29% at no extra cost, with an additional 5000 tonnes of material avoiding landfill. NOMS Property now requires its framework contractors to deliver at least 20% recycled content, by value.



How can a project team increase and report on recycled content?

To help project teams assess, increase and report on the recycled content of their projects with minimum effort, WRAP has developed an online Recycled Content Toolkit. This is a free resource available at www.wrap.org.uk/rctoolkit

The toolkit can be used to:

- estimate the baseline performance of the project;
- identify the top 10 or more Quick Win opportunities;
- record how each Quick Win is being addressed in the project (i.e. whether or not it is being pursued); and
- produce reports showing the recycled content achieved by a project, development scheme or company portfolio.

Practical support

WRAP can provide free training in the use of the toolkit to designers and contractors on major (typically £50m+) construction projects. WRAP also provides practical support and training to major clients when setting procurement requirements.

Further information

WRAP provides guidance and tools covering all aspects of materials efficiency in construction, including waste reduction, recycling and recycled content. These are freely available at www.wrap.org.uk/construction

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