

Reducing Building Waste



The Problem of Building Waste

Of the waste going into landfills around the country, up to 40% of it is construction waste, both from new projects and from demolition. Much of that material could be used or reused in some form or other. Any building material represents a huge amount of energy (and often pollution) in its history of extraction, production and transportation as well as its eventual disposal. Wasting good material is not an option any more. We need to rethink our building design and construction practice to reduce wastage.

Design to Reduce Waste

Smaller footprint - good design can make a compact space still feel comfortable while using fewer materials. Tiny home design makes maximum use of small volumes.

Durability - longer lasting materials do not need replacing so often. Choose materials that do not go out of fashion. Beautiful buildings endure.

Services - group water requiring rooms and electrical outlets together to minimise pipe and wiring runs.

Materials - size the building for standard sheet sizes to reduce the number of off-cuts. Choose materials with small unit sizes such as bricks to avoid large amounts of waste.

Construct to Reduce Waste

Ordering - accurate calculation of materials required encourages thrifty use of materials; ensures unreturnable material is not left over; and extra trips are not needed when there is not enough.

Care of new materials - handle and store new materials carefully to avoid damage.

Sorting - have bins set up for immediate sorting of usable, reusable, recyclable and landfill materials. Find out where materials can be taken for reuse or recycling.

Untreated timber - use of naturally durable timbers means off-cuts can be used for toys or firewood.

Deconstruct to Reduce Waste

Interior materials - these can be reused if they are in good condition. Otherwise their materials can be reused or up-cycled. Pipework, metals and wiring can be recycled and fetch good money. Gypsum offcuts can be crushed and used for conditioning soil.

Structural materials - tiles and bricks can be cleaned and reused, roofing iron can be recycled, structural timber can be de-nailed and reused. Concrete can be broken up and used for aggregate.

Design for Deconstruction

Modularity - small building modules can be taken away on a truck; modular joinery units can be more simply reconfigured.

Fasteners - a small number of accessible, undoable mechanical fasteners instead of glue makes dismantling easy.

Quality - use materials that are worth recovering and are in reasonable quantities. Keep the number of materials limited and do not use toxic or composite materials.