



# Construction Waste Minimisation Strategy

## Check List

### 1 PROJECT PLANNING - FOCUS ON ELIMINATION AS A PRIORITY

- ✓ Identification and communication of responsibilities
- ✓ Gained input from personnel involved
- ✓ Provided education and information to relevant stakeholders
- ✓ Developed (and analysed) project waste profile (Waste Min Plan)
- ✓ Integration of cost-control, reporting and monitoring
- ✓ Arrangements for material separation and collection


### 2 PRE-CONSTRUCTION

#### Design

- ✓ Incorporates building for deconstruction principles
- ✓ Incorporates use of modular components
- ✓ Designed to standard material sizes
- ✓ Designed for operational waste minimisation


#### Estimating and Purchasing

- ✓ Avoid over-estimating and rounding-up of purchasing requirements
- ✓ Specify exact requirements to suppliers
- ✓ Buy environmentally improved & recycled content products (see EcoSpecifier)
- ✓ Specify exact requirements to suppliers


### 3 OFF-SITE ACTIVITIES

- ✓ Incorporate the use of prefabricated materials

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### 4 ON-SITE ACTIVITIES

- ✓ Materials stored to avoid degradation/damage
- ✓ Minimisation of incoming packaging materials
- ✓ Separation and recycling of materials (incl. Packaging)
- ✓ Litter management principles implemented on site
- ✓ Plan for safe disposal of unavoidable waste




# Guidelines for Preparing Waste Reduction Strategy for Construction

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## INTRODUCTION

The following guidelines are designed to help you prepare a waste reduction strategy for your next construction project. The guidelines are applicable to any building project, big or small. Follow them and your projects will go beyond simply 'meeting existing standards' or 'following standard practice', to become waste-efficient and cost-effective operations.

## WHO CAN USE THESE GUIDELINES?

Developers, builders and sub-contractors.

Opportunities for waste minimisation exist in four construction areas:

1. Project Planning
2. Pre-Construction
3. Off-Site Activities
4. On-Site Activities

## I. PROJECT PLANNING

The key to minimising waste and improving your profit margins is to develop a fully integrated waste management strategy.

By implementing some routine practices and including the following elements in your planning process you should go a long way towards reaping the benefits.

When planning your strategy, remember to:

- A. Focus on the elimination of waste as the priority.
- B. Identify and communicate responsibilities for waste minimisation between client, developer, designer, builder, project manager, contractors and suppliers. (This might include placing contractual obligations with sub-contractors to development and implement waste reduction plans. Where appropriate, employment contracts should also outline position responsibilities.)
- C. Allow for input from all personnel involved.
- D. Educate and inform personnel about the reasons for waste reduction in general, and provide training in practices that support this.
- E. Conduct an analysis of the project waste profile (using a Waste Reduction Plan like the one provided in this kit).
- F. Integrate cost-control, reporting and monitoring of waste minimisation initiatives throughout the course of the project.
- G. Make arrangements for site separation of material and contractor collections.



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## **2. PRE-CONSTRUCTION**

The pre-construction phase involves designing, estimating and purchasing, three areas in which you can save waste and cut costs.

### **DESIGNING**

When designing, remember to consider elements that reduce waste, including:

- A.** Building for deconstruction - so that when future modifications or decommissioning occurs, the entire structure can be taken apart and reused with ease and minimal waste.
- B.** Good dimensioning and the use of modular components.
- C.** Designing to standard material sizes.
- D.** Building for operational waste reduction - so that once the building is operational it generates minimal waste and is easily serviced for waste and recycling collections.

### **ESTIMATING AND PURCHASING**

- E.** Be mindful of over-estimating or rounding up of purchasing requirements (Estimators commonly provide for too big a margin between expected waste and actual waste).
- F.** Procurement / Purchasing policy - one of the most effective ways to avoid waste is by specifying to manufacturers and suppliers your exact requirements. In particular this can assist in avoiding over-packaging goods or unnecessary packaging.
- G.** Buy environmentally improved materials - for example, those made from recycled content or with energy conserving features.

## **3. OFF-SITE ACTIVITIES**

Keep in mind:

- A.** Prefabrication - by prefabricating frames and trusses, timber waste can be significantly reduced.

#### 4. ON-SITE ACTIVITIES

On-site activities play a critical role in achieving the waste reduction plan. Consider saving waste and money in these areas:

- A.** Delivery and storage of materials (and checking of amounts delivered) -
  - Set up appropriate storage arrangements to guard against product degradation or damage from weathering or moisture.
  - Request that suppliers deliver materials when needed. This reduces the opportunity for waste through error or change in estimate, permits on-site measurement rather than from drawings and provides for any modifications that the client may request.
- B.** Packaging - packaging waste from building materials, fittings and whitegoods can be a significant contributor to the waste stream. Talk to your suppliers to ensure they don't provide you with any unnecessary packaging. If you are building on an estate, explore opportunities with other builders for the collection of cardboard, plastics and metals.
- C.** Separation of materials for collection and recycling - make arrangement with recycling contractors to provide clearly marked bins for material separation. Make sure that sub-contractors are aware of the placement of the bins and their responsibility to separate materials. Also outline measures that will ensure sub-contractors are required to clean their work area and deposit discarded materials in the specified material bins for recovery. If there is insufficient space to separate materials on site, explore arrangements for mixed loads to be sent to a sorter for recycling.
- D.** Litter management on site - Litter management must be implemented on site and be required of subcontractors and waste management contractors. Outline the measures your company will take to a) minimise on-site litter during construction and b) move litter from the site. This must address methods used to minimise air borne litter and litter entering the storm water system. Strategies must include covering containers (skip bins) and stacked material.
- E.** Safe disposal of unavoidable waste - Disposal of unavoidable waste material generated during construction (ie. waste that can not be recovered, reused or recycled and requires landfilling), must be done in a safe manner. Outline the arrangements that will be made with waste contractors to ensure waste is safely recovered and disposed to licensed landfills. Documentation, in the form of landfill receipts, must be kept to support the waste minimisation site review and data collection requirements of this project.

**Remember, when following this guide, take into account relevant OH&S and Building Act regulations.**