



Environmentally responsible construction: Community wood recycling

A Timber waste management case study - Construction sector

The achievement

Integra (Brighton) Ltd was established in 1990 to service the higher quality construction needs of Sussex and the South East of England. The company focussed on social and environmental responsibility from inception and has diverted over 400 tonnes of wood waste from landfill for recycling and re-use over the last five years.

The Brighton & Hove Wood Recycling Project works closely with Integra and helps to reduce the costs of wood waste disposal, and divert timber waste from landfill throughout the Brighton area. Since establishing the project in 1998 over 3,000 tonnes of timber waste have been recycled and reused. The project won the official government sponsored National Recycling Award in 1999 and National Social Enterprise Award in 2002.



Key management issues

- Finding and developing a relationship with a local timber recycling organisation
- Organising good on site practice to re-use (where possible) and separate out timber waste from other general waste disposed of via conventional mixed waste skips
- Continual staff training and evaluation of onsite waste separation, training any subcontractors in the waste management techniques.

Key benefits

- Immediate savings on the cost of building waste disposal, with a system in place that will aid bottom line financial savings in future as further EU waste legislation is implemented in the UK
- Development of a good environmentally sound reputation with much positive publicity helping to develop new business
- High degree of local staff loyalty as they are pleased to be working for a professional environmentally positive company with clear social values giving back to the local community.

Background

Integra (Brighton) Ltd carries out construction work for a wide range of clients, including many national and local businesses and institutions. The company set out to undertake all its construction projects in as environmentally sustainable manner as possible. Social and environmental responsibility was engendered within the company through the culture developed by management. This led to Integra working closely with the Brighton & Hove Wood Recycling Project (BHWRP), donating a transit pickup vehicle and becoming one of the first major customers. Over the last five years the partnership has diverted over 85% (417 tonnes) of Integra's wood waste from landfill. This waste has been recycled in particleboard manufacture, processed for fuel and re-used in DIY, manufacture and construction.

SME construction companies that are willing to segregate timber waste can save money through organisations such as the Wood Recycling Project. They remove the wood waste from site cheaply and efficiently in a separate container provided specifically for timber.

Working with local timber recyclers

Social and environmental responsibility is part of Integra's company policy and acting on this has led to an award for "business community citizenship 2002". It is also an active member of the Association of Environment Conscious Building (AECB) and always considers resource efficiency as part of the process in any contract. Integra deliberately set out to be different, as a more environmentally aware "eco-friendly" socially caring construction company. The management built this into the culture of the company and applies this by having an almost entirely in-house workforce (very little subcontracting) which has taken up the ethos. It worked as a strategy to win environmental contracts, gain a good reputation, develop further business and obtain much positive publicity, which has proven to be very valuable.

For the majority of SME construction companies environmental issues are not the highest priority, but good waste management practices can produce considerable financial savings. Joe McNulty, a Director of Integra Ltd stated "*We're a business, so as well as saving the planet, we're driven by saving money*". This highlights how sound waste management for the environment goes hand in hand with saving money. Working with the Wood Recycling Project gave them the opportunity to do just that.

The wood waste problem

The construction and demolition sector produces 24% of all waste generated in the UK¹, this is the largest proportion of any one sector that contributes. Government policy is raising the cost of disposal of this waste through higher landfill tax rates, set to increase to £15/tonne in 2004-05 and £18/tonne in 2005-06. Timber waste can constitute up to 50% of waste (by volume) from construction sites and up to 24% (by mass).

Integra has always tried to be as environmentally sound and economically efficient as possible regarding the materials they use and the waste they produce. Through this, the company has circumvented part of the landfill problem by recycling timber waste. It has a mechanism in place to continue this and make further savings, avoiding more costly landfill disposal in future.



The Brighton and Hove Wood Recycling Project has worked closely with Integra for over five years and during the period has helped the construction company meet its environmental promises by diverting over 2,941yd³ (2,249m³) from landfill (Table 1).

¹ Source: Department for Environment, Food and Rural Affairs; Environment Agency; Water UK

	yd ³	Tonnes	%
Total volume of wood waste	3460	490	100%
Volume of wood waste diverted from landfill	2941	417	85%
Chipped for particle board	623	88	17%
Processing for firewood / fuel	1903	270	55%
Re-use for DIY	415	59	12%
Residue not recyclable	519	73	15%

The wood recycling project charges £10 - £14/yd³ depending on the quality of the timber waste being collected and the distance to the depot, the average cost being approximately £11/yd³ in Brighton. The average skip price would cost £16/yd³ which means there would be a saving of approximately £5 for every cubic yard of timber recycled or disposed of by the Wood Project. If Integra had been paying these prices during the last 5 years (assuming the average saving remained approximately the same) the company would have saved £17,300.

There are numerous examples of savings made through working with The Brighton and Hove Wood Recycling Project to dispose of timber waste. Cheesmur Building Contractors, established in 1936, has been based locally since the 1960s and worked closely with them in 2003. During this time, Cheesmur disposed of 981yd³ of timber waste from its building sites through the project, saving £4,905 while also diverting 95% (933yd³) of this waste from landfill (Table 2.). This constitutes good environmental performance and is more cost effective than conventional skip disposal and landfill routes.

As the EU directive on waste management and recycling is implemented, landfill tax will rise and the price of standard skip disposal may become as high as £19-20/yd³. This would mean savings could be as high as £6-7/yd³, which would mean construction companies such as Cheesmur Building Contractors could save over £6,800 per annum by separating out their timber waste.



	yd ³	Tonnes	%
Total volume of wood waste	981	139	100%
Volume of wood waste diverted from landfill	933	132	95%
Chipped for particle board	570	81	58%
Processing for firewood / fuel	190	27	19%
Re-use for DIY	173	24	18%
Residue not recyclable	48	7	5%

The author of this sheet is employed by TRADA Technology Ltd, managers for the project. The work was carried out under a contract jointly funded by the Timber Research and Development Association and the Secretary of State for Trade and Industry. This document is published with the consent of the Department of Trade and Industry, but the views expressed are not necessarily endorsed or accepted by the Department.

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Timber Research and Development Association (TRADA)
Forest Products Research Centre (FPRC)
Construction Best Practice Programme (CBPP)
Trussed Rafter Association (TRA)
Fauna and Flora International
PPJ Joinery Ltd

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