QUICK GUIDE TO GREEN TI Sustainable Tenant Improvements

10 CONSTRUCTION WASTE MANAGEMENT



Benefits

- Financial savings
- Reduces use of new materials such as forest products, mineral ores, water and energy
- Reduces manufacturing and transportation related greenhouse gas emissions
- Reduces energy and water consumption

Overview

The City of Seattle has set ambitious goals to increase the amount of recycling and reduce waste, recently adopting a Zero Waste Strategy with a 70% recycling target by 2025. Many construction, demolition and land-clearing waste materials have high aesthetic and monetary value for salvage and reuse. In 2007, the Seattle/King County region recycled over 50% of its construction and demolition material.

Construction, demolition and land-clearing (CDL) waste reduction, salvage, reuse and recycling is facilitated by an impressive array of professionals: construction and demolition contractors, recyclers and haulers, and salvaged material retailers. Companies that specialize in salvage and deconstruction can help guide tenant improvement projects.

"Early planning by the project manager drives successful demolition recycling."

Reef Anderson Iconco Demolition & Salvage



Strategies

Construction waste management strategies should emphasize, in order of priority:

Preventing waste...

by design	Use standard sizes for building materials, specify materials that can be disassembled, and design	fe
	flexible spaces for changing uses.	
through planning	Set targets, communicate about them and adopt waste prevention plans.	C
on the job-site	Provide clearly marked areas key to waste prevention, require that reusable wood and other materials are used before cutting new ones and protect materials from loss or damage.	By w pi
in purchasing	Select reused, recycled or recycle-content materials and equipment.	M M
by salvaging and reusing	Find creative ways to reuse items already existing within your project site (millwork, carpeting, lumber,	M W
	furniture, etc.) to reduce shipping and disposal fees.	м

Quick Fact

Approximately 80% of our waste is shipped out of state because we have so few landfills with remaining capacity.

LEED[®]-Cl v2.0: Commercial Interiors

By implementing various construction waste management concepts, your project may be eligible for the following:

Materials & Resources

MR Credits 1.2–1.3 Building Reuse

MR Credits 2.1–2.2 Construction Waste Management

MR Credits 3.1–3.3 Resource Reuse

CASE STUDY

Atlantic/Central Base Expansion

Early planning incorporated 'green specifications' into the construction waste management bid documents. A detailed survey of building materials prior to demolition gave the demolition contractors time to provide accurate bids with adequate timelines to salvage and recycle as many materials as possible. Time was also built into the construction schedule for researching the best end uses and best prices for salvaged materials. Two staging and materials storage areas were created and used simultaneously by a neighboring construction project on the site.



E-Waste

The Take it Back Network is a partnership among government agencies, retailers, repair shops, charitable organizations and recyclers that provides consumers with options for recycling electronics and fluorescent light bulbs in a safe and cost effective manner. For more info, visit www.takeitbacknetwork.org.



Checklist

Set up a Job-site Reuse and Recycling Strategy

- Identify areas of the project for potential reusable building materials, such as appliances, bathroom fixtures, bricks, cabinets, carpeting, dimensional lumber, doors, ductwork, flooring, insulation, light fixtures, marble, metal framing, paneling, pipes, plywood, shelving, stairs, tile, trim, windows and wood beams.
- Identify recyclable materials by compiling a construction & demolition inventory while identifying the activities which generate these materials. This includes recyclable waste generated by the construction staff, including beverage containers, paper, etc.

Choose a Recycling Method

- □ **Commingled Recycling**: Contract with a recycling hauler who accepts commingled construction and demolition materials.
- □ **Source Separation**: Collect recyclables in separate containers as they are generated on-site. Contract with a recycling hauler to take materials to a recycler or transfer site.
- □ **Self-haul**: First separate your recyclables only some recycling stations take commingled loads.

Select a Recycler and Agree on...

- □ Materials to be recycled
- □ Documentation of quantity recycled by weight or volume
- □ A properly permitted facility to which material will be delivered
- □ All associated costs
- □ Schedule for pick up of containers
- □ Container labeling

Develop Design Specifications and Waste Management Plan

- □ Specify recycle and reuse procedures and facilities in construction documents.
- □ Ensure compliance by specifying the final destination.
- □ Distribute and discuss your waste management plan with the design team, landlord, subcontractors and any others involved.

Monitor the Program

□ Check dumpster regularly to ensure materials are being separated properly.

Resources

www.resourceventure.org An online resource funded by Seattle Public Utilities that contains a searchable database for recycling everything from batteries to lighting to other construction and demolition waste.

www.kingcounty.gov Search for the 2008 Construction Recycling Directory to determine the easiest recycled materials and locate haulers.

www.greentools.us Search under Construction Recycling for tools and resources or phone 206-296-4434.