Additional Information:

Links: U.S. Green Building Council: www.usgbc.org



<u>Whole Building Design Guide - Construc-</u> <u>tion Waste Management Database:</u> www.wbdg.org/tools/cwm.php



Habitat for Humanity: www.habitat.org/env/restores.aspx



Sustainable Packaging Coalition: www.sustainablepackaging.org



Waste Management: www.wm.com



Penn State AE Senior Thesis e-Studio: www.engr.psu.edu/ae/thesis/ portfolios/2009/jmp5051



AN OLD HARDS

Who will you do it for?

This informational brochure is not a comprehensive guide for developing a construction waste management plan. The purpose of this brochure is to encourage CM's, contractors, subcontractors, facility managers, and owners to do their part for the economy, the environment, and the community. If considering a CWMP, consult a professional to determine availability of local services and resources. This brochure has been developed as part of a senior thesis project under The Pennsylvania State University's architectural engineering program. To see more information leading to the development of this brochure, visit Joseph Podwats's Penn AE Senior State AE Senior Thesis e-Studio.

Greening Your Projects

Developed By: Joseph Podwats Penn State University Architectural Engineering-CM Senior Thesis Ingleside at King Farm Advisor: Dr. David Riley

Phone: 570-510-0238 E-mail: jmp5051@psu.edu



Greening Your Projects

CONSTRUCTION WASTE MANAGEMENT INFORMATION

Designed for Construction Managers, Contractors, Subcontractors, Facility Managers, and Owners.



Developed By: Joseph Podwats Penn State University Architectural Engineering-CM Senior Thesis Ingleside at King Farm





Why should I implement a construction waste management plan (CWMP)?

One of the most important things to do in business is conserve resources. This is also one of the most important things to do to save the planet, improve the economy, and protect the overall health of the communities. Resources are important to survival. Implementing a plan to reduce, reuse, and recycle helps preserve fuels

required to haul trash to distant landfills due to local ones being capped. A



reduction

Seen this type of mess on your projects before? in material

usage translates into savings on multiple levels; CM's, GC's, Subs, Owners.

Although difficult to comprehend and quantify the benefits, implementing a CWMP in conjunction with a clean-minded attitude and a goal of maintain cleanliness on site can improve IAQ during construction.

Implementing a CWMP is a socially, economically, and environmentally responsible thing to do.

STATISTICS

- Buildings contribute 30% to U.S. waste output each year (136 million tons)
- Buildings use 40% of our raw materials

BENEFITS

- Reduced solid waste, less burden on landfills and trash removal services, promotes green economy
- Savings on tipping fees
- Promotes well-being of local community
- Improved productivity on the construction site
- Morale and operating income will be boosted
- Public image improved and awarded more bids
- Improved Indoor Air Quality and working conditions
- Contributes to overall health of job site
- Improve site safety and cleanliness
- Can reduce or eliminate construction delays

HOW IT CAN BE DONE:

GREEN PURCHASING PRACTICE

Consider buying materials and supplies in bulk with less packing or buying from suppliers that use sustainable



packaging materials. Return reusable containers and packing materials to the supplier. Reuse non-returnable containers on the

jobsite wherever possible. Develop a list of uses for plastic containers and find local organizations to see if they can use them. Request deliveries to be made with minimal packing.

GREENING THE TRADES

Setup a recycling orientation for subs as they enter the site. Employ additional laborers where necessary to promote and support a green economy. Make the laborers in charge of preventing comingling.

Thinking

We don't throw away leftover food, why would we throw away leftover materials? Donate unused materials to local organizations such as Habitat for Humanity.

Training Educate the subs about the plan.

Monitoring Appoint and train a "green" leader to track

cleanup and answer questions about recycling.

Rewarding

Offer incentives to workers such as approving more overtime hours.

GREENING THE SPECS

- Make participation mandatory
- Use bid alternates to determine feasibility
- Require recycling to the extent practical
- Require a draft waste plan
- Require recycling of specific items
- Require proof of waste diverted from landfill
- Provide list of local waste/recycling services
- Provide list of local community organizations

