Reducing Construction and Demolition Waste in Gainesville Briefing Paper

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Executive Summary

Construction and Demolition (C&D) waste makes up 6% of all commercial municipal solid waste. Current C&D waste requirements are set by the mandatory commercial recycling ordinance, which has not been updated since 1997. Our current system creates loopholes, which make it less effective than it could be. Other cities require that a certain percentage of all waste generated at a C&D site be recycled or salvaged, which ensures that, not only is waste being diverted, but the companies are using materials that can be recycled or reused.

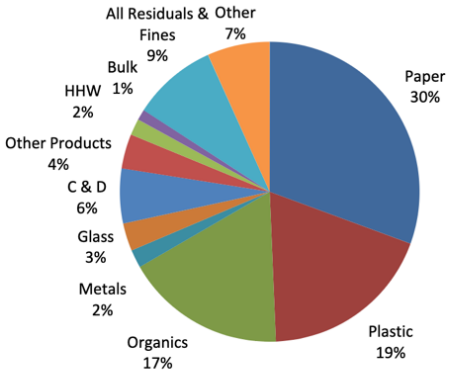


Figure 13 The Commercial Municipal Solid Waste Composition for Alachua County Based on the 2009 Study. Percents by Weight

Source: https://studylib.net/doc/18842079/alachua-county-waste-composition-study

The following are ways to improve C&D waste diversion rates:

- Require 75% of All C&D Waste to be Diverted from Landfills
- Explore Deconstruction Requirements

The city should also explore reporting options that allow the city, waste haulers, and C&D companies to collaborate efforts towards streamlining waste reports and encouraging reuse over recycling.

Preliminary Research and Findings

Require 75% of All C&D Waste to be Diverted from Landfills

Currently, the "de minimus" requirement for recycling set by the city code is unclear and hard to define. By updating this requirement to be 75% of all C&D waste, both C&D contractors and city regulators can more clearly understand what is required.

Being able to accurately report where C&D waste is sent is also essential to ensuring that C&D generators are meeting required diversion rates. The following are examples of cities with clearer reporting and diversion requirements.

Seattle, Washington

- In Seattle's municipal code, there is a list of specific materials that all construction and demolition projects are required to recycle.
- All projects also must submit a report detailing the "quantities, types, and delivery destinations" of materials from the construction and demolition project.
- Any project found in violation of this ordinance will pay a fine of $250.
- Seattle requires all construction projects valued at over $75,000 to fill out a "Salvage Assessment" form, in which they itemize what C&D waste they could salvage.
    - They are not required to salvage it; rather, this form is designed to encourage contractors to consider salvaging rather than recycling or wasting.

Lee County, Florida

- Lee County's C&D waste recycling program is generally thought to be one of the most effective in Florida.
- C&D contractors have to recycle 50% of all waste generated at the permitted site.
- C&D contractors must follow a six-step process, in which they weigh everything that can be "feasibly recycled" and submit all documentation to county officials to show they recycled the required amount, including receipts, photos, and pre-project estimates.

San Diego, California[1]

- All C&D projects are required to put down a deposit, only to be repaid if they…
    1. Fill out a waste management form
    2. Divert 65% of all waste
- Deposits range from $200 to $40,000, depending on the size and type of project
- Acceptable methods of showing diversion are…
    1. On-site reuse of C&D debris
    2. Acceptance of C&D waste by a certified recycling facility
    3. Other donation or reuse
- Form asks for estimated tons of different type of C&D waste generated, and how much will be salvaged, reused, recycled, or thrown away
    - Measured in weight, with a volume conversion rate table provided by the city
    - Also required to provide receipts, photographs, or other documentation of diversion

In an effort to make their reporting requirements as clear as possible, Chicago and several cities in California have partnered with Green Halo Systems, a service that allows cities to build an online portal, through which C&D projects report their waste diversion. Green Halo costs an initial one-time fee of $3,500, with a monthly subscription of about $231 for Gainesville. If the city was interested in this, Green Halo offers one-on-one webinars to explain their services in greater detail.

Explore Deconstruction Requirements

Even the most effective recycling is not as sustainable as simply reusing a material or product. For that reason, many cities have implemented "deconstruction requirements," which require certain structures to be completely or partially deconstructed (rather than mechanically demolished), ensuring that the materials can be salvaged and reused.

[1] https://www.sandiego.gov/environmental-services/recycling/cd

In such cities, this requirement typically only applies to homes of a certain age, with the construction date moving closer to the future to include more houses. The following are examples of such cities:

Portland, Oregon

- All homes built before 1940 are required to be completely deconstructed
    - The "year-built" threshold was just recently raised to 1940 from 1916
- Such C&D projects are required to use a city-certified deconstruction contractor
- Permits are not approved by the city until the deconstruction contractor submits a deconstruction report form

Vancouver, British Columbia

- The city requires deconstruction of all homes built before 1910 and all "heritage-listed" homes built before 1950 (about 1% of total home demolitions)
    - C&D projects dealing with houses built before 1950 are required to divert (i.e. recycle or reuse) 75% of waste
- Deconstruction is defined as "the salvage of at least three metric tons of wood in reusable form, per home"
- People submitting demolition permits for pre-1950 homes must pay a $14,560 deposit
    - This deposit is refunded in varying amounts, depending on how closely the project met diversion requirements.

Pros and Cons of Potential Changes

Pros of Requiring 75% of All C&D Waste to be Diverted from Landfills

- Removes any confusion between city regulators and C&D contractors
- Could be a potential revenue source for businesses, which have the option to sell their reusable waste
- Decreases amount of waste being sent to landfill

Cons of Requiring 75% of All C&D Waste to be Diverted from Landfills

- Might increase the cost for contractors of disposing of C&D waste

Pros of Exploring Deconstruction Requirements

- If enacted, it would allow for an opportunity to reuse materials from houses
- Exploring the possibility allows the city to learn more about how such a requirement would look in Gainesville

Cons of Exploring Deconstruction Requirements

- No foreseeable cons, since the recommendation is to just explore the option

Costs of Potential Changes

Requiring 75% of All C&D Waste to be Diverted from Landfills

- Potential increase in costs for C&D contractors, if recycling hauling is more expensive than general waste hauling
- Potential revenue for C&D contractors if they are able to sell/salvage a portion of their waste

Exploring Deconstruction Requirements

- Cost of city staff time allocated to exploring this option

Construction and Demolition Proposals for Gainesville

- Require 75% of all C&D waste to be diverted from landfills
    - Could require a deposit (like Vancouver and San Diego), only to be refunded if projects meet the requirement.
    - Could work with Green Halo to move to online and more streamlined reporting.
- Explore requiring houses built before a certain year to be deconstructed
    - Could work with the Historic Preservation Board to determine a suitable "year-built" threshold for Gainesville.
    - City staff should research whether there are homes in Gainesville from which enough salvageable material could be used to merit such a requirement.
- Explore incentives to move homes set for demolition to an alternate site