Strive for 75% Fact Sheet

Construction & Demolition

Construction and demolition materials are resources, not waste!

The Challenges with C&D

Construction and Demolition (C&D) materials are generated when buildings are built, re-modeled and torn down. The U.S. EPA states over 500 million tons of C&D debris are generated each year—more than twice the amount of municipal solid waste. Demolition represents more than 90% of total C&D debris generation, while construction represents less than 10%. Reclaiming used, but still valuable, C&D materials is an effective way to:

- Increase local business opportunities.
- Create jobs. Per the EPA, 2016 Recycling Economic Report, recycling of C&D materials created 230,00 jobs.
- Reduce overall project expenses through avoided purchase, disposal and transportation costs.
- Conserve landfill space.

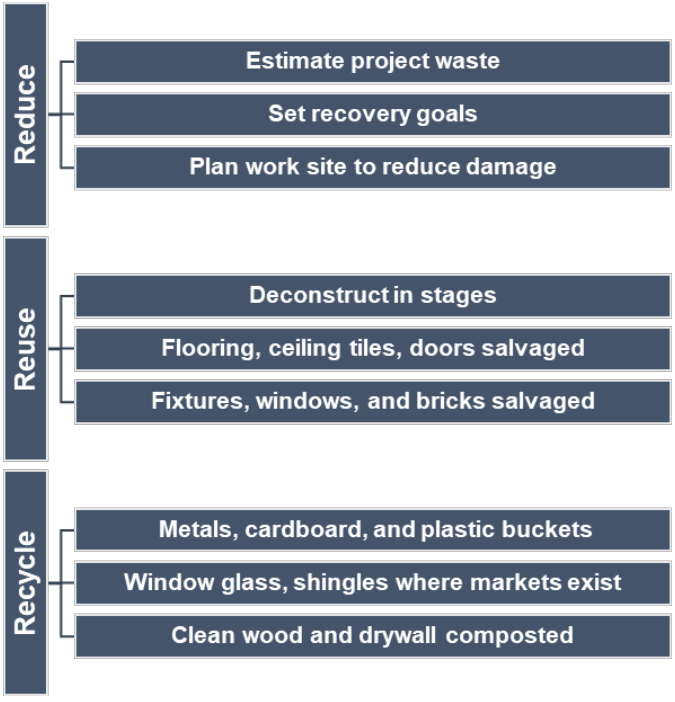
C & D Materials in Missouri Landfills

In 2017, the Missouri Department of Natural Resources completed a study that sorted and visually surveyed wastes dumped at twenty-two disposal facilities across the state. Combined results represented rural and small and large metro areas, giving an estimate of the type and amount of materials Missourians throw away. Construction and demolition wastes accounted for 475,717 tons or 8.2% of wastes in this study.

It is important to note that C&D comprised as much as 35% of the waste composition at one facility to as little as .9% in another. Recovery of C&D materials can grow across the state, by requiring a waste management plan, based on local markets, for large projects and ideally incorporated into permits for every demolition or construction project.

Hierarchy of Disposal Options

A successful waste management plan is key to encourage the first and most important step in recovery- waste prevention (reduce). The plan serves as the roadmap to protect and sort items for reuse and recycling.



MORA provides value by connecting people, offering industry insights, and influencing policy to support our economy and businesses in extracting the highest and best use of materials at end of life. Join and support MORA in leading the state to 75% Waste Diversion!

Details and additional C&D resources at **www.mora.org**

Deconstruction vs. Demolition

Deconstruction involves taking a building apart while carefully preserving valuable elements for re-use. "Soft Stripping" is to selectively deconstruct a building by going in before demolition begins and cherry picking the high value items such as doors and woodwork, lighting fixtures, hardwood flooring, cabinets, windows and counter tops. Whole house deconstruction can recover wall studs, concrete, joists, piping, wiring, and plumbing fixtures.

Demolition is the tearing-down of buildings and other structures. Contamination requires special attention and source separating materials on-site is the typical method used, however, businesses that accept commingled debris are becoming more common. The ability to site one container for all materials greatly simplifies recovery.

C&D Products

Salvage and reuse is the highest and best use of C&D materials. Recovered fixtures, doors and windows and can be utilized in any community.

After reuse, many C&D components can be recycled. Asphalt, concrete, and rubble are often recycled into aggregate or new asphalt and concrete products. Wood can be recycled into engineered-wood products like furniture, as well as mulch, compost, and other products. Metals, including steel, copper, and brass, are valuable commodities to recycle.

Shingles To Roads

The average construction of a 2,000 square foot home in the U.S. generates two tons of unused or scrap materials.

An asphalt shingle roof replacement can generate 2-5 pounds of shingle waste per square foot of roof. Asphalt shingles are made from fiberglass or cellulose felt backing, asphalt cement, and mineral granules. Shingles are ground to specifications and used in paving. 200 feet of road can be paved using shingles from the average home's roof.

Since 2003 the Missouri Department of Transportation has a specification to allow the use of up to 7% recycled asphalt shingles (RAS) of the total weight of hot-mix asphalt. There are challenges in getting tear-off shingles clean enough for hot-mix asphalt. An additional barrier is testing for asbestos, whose fibers are released when shingles are ground. RAS as a paving material will be more wide-spread, when the costs of virgin paving materials exceed the cost of producing a clean ground RAS material.

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