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Construct Canada speaker says industry has waste diversion responsibility

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Almost 50 per cent of all solid waste in landfills is generated by the construction industry.

"It's a huge footprint that we're all responsible for," said Stefanie Dodaro, Director, Sustainability Services, CD Sonter Ltd., a Canadian environmental consulting firm specializing in waste and recycling management consulting services to a broad range of commercial, institutional and industrial clients in Canada.

Dodaro recently made a presentation at this year's Construct Canada tradeshow in Toronto.

As per Ontario Environmental Protection Act Regulations 102/94 and 103/94, all construction or demolition over 21,500-square-feet must have a source-separation recycling program and complete an annual waste audit, she noted.

From the environment ministry's perspective, the responsibility lies with the party responsible for the actual site development, usually the builder.

The regulation doesn't enforce a minimum diversion requirement; it enforces the materials that have to be recycled.

Construction materials that have to be recycled, if being generated on-site, are brick and Portland cement concrete, cardboard, unpainted drywall, wood (not painted, treated or laminated). Mandatory recyclable materials for demolition are wood (not painted, treated or laminated), steel and brick and Portland cement concrete.

"Concrete is just one of these things that makes so much sense to recycle it can be used as road sub-base and then it's paved over it can be turned into aggregate or actually put back into your building," explained Dodaro.

"It's a perfect example of a full cradle to cradle process."

Recycled cardboard uses 25 per cent of the energy needed compared to working with virgin materials and steel is the number one most recycled material by weight in North America with 61,471,799 metric tonnes of it recycled since January 2011.

She pointed to one case study, the Royal Bank Plaza in Toronto, where they achieved 94 per cent diversion, for a total diverted waste of 111.27 metric tonnes of the 118 metric tonnes of total waste generated, 68 metric tonnes of concrete and 31 metric tonnes of metals. When they installed low flow toilets, they were able to recycle the previous 500 porcelain toilets as aggregates.

Dodaro said it was a special project where a market really had to be identified. Working with the Toronto Port Authority, they were recycled into aggregate to use in one of its lakefill sites.

"When the materials leave the site, you forget about them, but when you really see how you contributed to something important like this, it's a good all around story," she said.

The project earned LEED in Existing Building Version 2.0 with the U.S. Green Building Council with six credits and two prerequisites in the materials and resources category relating to solid waste management and construction demolition and two innovation in operations credits related to waste management.

If contractors are going to handle the recycling, she said it's important that it's established upfront so they know what they're bidding on and that contractors should be required to provide documentation of recycling.

"In most construction and demolition projects, it's more cost effective to recycle than it is to send to landfill they will see those costs come back to them."