The reality of trying to have a paperless office

October 23, 2009 - Long Island

By Paul Cataldo, Ashley McGraw Architects"Each person in the United States uses 749 pounds of paper every year (adding up to a whopping 187 billion pounds per year for the entire population, by far the largest per capita consumption rate of paper for any country in the world)" Ecology.com

Those of you who have been around long enough to witness the advent of computers in the office environment, recall the promise of the "paperless office." It was a marvelous and alluring concept. Ideas and text would be viewed on screens and only at the rarest moments would the barbaric practice of smearing ink on paper in a configuration interpreted as information occur. As it so often happens, a prediction of the future falls far from the harsh reality of life. I was convinced we would all be in flying cars by now. The grim reality is that we use more paper in our modern offices today than ever.

When a clerical person typed a letter and needed a copy, this instrument called "carbon paper" was used. Some of you younger professionals may have heard of it, few have seen it. We still use the term "cc" (carbon copy) to let a recipient know we have sent a copy to someone. The simple fact remains that the labor of producing a one-of-a-kind paper document could only be doubled with carbon paper. Before computers came the copying machine. This is when the paper river really started to flow. Multiple copies could pour out, at a certain cost, which decreased as the office copier became more common. Then the common implementation of computers, which enabled large documents to be imported, edited, and sent into hard copy with a few key strokes.

The fact is, world consumption of paper has grown four hundred percent in the last 40 years. So you say we recycle the paper in our office. Well, that's great; we must keep in mind what happens downstream after the waste paper leaves our office. First, we need to know what it took to get virgin paper to our office. As stated by Ecology.com: "The paper making process is not a clean one. According to the U.S. Toxic Release Inventory report published by the U.S. Environmental Protection Agency (EPA), pulp and paper mills are among the worst polluters to air, water and land of any industry in the country."

Forty percent of all the paper generated in an office in any given day will be discarded the same day. I have had experience with a large text document printed in the office with the incorrect header and footer on each page; it was tossed. In our hearts we feel better if we put it in the recycle bin. In a small office I worked in that was in the town of Brookhaven, we contacted the town which picks up paper bi-weekly at residences. We were told we would need to supply a certain "tonnage" per month. Well we produced waste paper but not at that rate. And so even if we can get our office paper sent to a recycling center, paper does not lend itself very well to the recycling process. Each time paper is recycled the paper fibers become shorter, to the point where the paper has very limited use, perhaps as a cereal box or packaging which if placed in a recycling stream will be removed and landfilled. This is what is known as downcycling. We did not keep the item out of the landfill; we

merely delayed its entry. Additionally, recycling paper requires many of the same chemical treatments to break down the paper, remove ink and dyes (many which contain heavy metals), and bleach the paper white again.

So what are the solutions? Nature has no waste. Leaves fall off a tree to decompose and feed the tree with nutrients. Paper comes from trees. Regardless of the biological medium we use to produce paper fibers, the paper itself should be part of a closed-loop system. William McDonough and Michael Braungart suggests in their book, Cradle to Cradle: Remaking the Way We Make Things that paper be processed and printed in a way that does not hybridize the biological character of the paper. Added into the paper could be some nitrogen, which would add value to the waste paper. It could then be ground and used to fertilize oh say, a paper mill forest. This could go on indefinitely, closing the loop and embodying the very definition of sustainability. This would require that inks in pens and printing machines not add anything that would be detrimental to this process. Yes, that would be a huge industry shift; and a guilt free trip to the recycle bin.

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