

Columbia University Reality House

Putting It All Together: Deconstruction, Job Training, 90% Reuse & Recycling

What does IRN do for its members and clients? Deconstruction; construction/demolition recycling; surplus property reuse; universal waste disposition; efficient recycling of multiple commodities. It's not often a project comes along that uses all these capabilities at once. Columbia University's Reality House did that. Add job training for young workers and a 90% reuse / recycling rate, and you have a project unprecedented in scope and success.

The Challenge: Reality House is a former methadone clinic in upper Manhattan that Columbia acquired several years ago. Columbia rehabbed two floors into offices, leaving the remaining two floors as Reality House left them: a mess. There were more than 10,000 square feet of partially built-out space: a forest of studs and door frames and wiring. This and the rest of the two floors were packed with nearly three decades of debris: old computers and monitors and IBM Selectric typewriters, hundreds of boxes of documents, a thousand or more pieces of furniture, fluorescent lights and fixtures, piles of scrap metal, unused building materials, cardboard boxes filled with clothes and toys and office supplies and Christmas decorations. Three decades of junk, strewn, tossed and jumbled.

It got worse. Among the documents were patient and financial records. The computers also presumably contained confidential patient data. The monitors, fluorescent bulbs and fixtures are all regulated universal wastes. There were tens of thousands of pounds of usable building materials, doors and windows, wiring. All of that surplus furniture, 100% reusable. And there was Columbia's very serious commitment to the environment and sustainability. Disposal simply wasn't an option.

Planning: That's about when Columbia called IRN. Working with Columbia's Facilities and Sustainability management teams, we developed a project that brought community-based groups together to take advantage of nuggets in the Reality House mess: Build It Green! NYC (BIG), a nonprofit that gathers and resells salvaged and surplus building materials at low cost to New York residents; Nontraditional Employment for Women (NEW), a nonprofit that works with New York's unions to train women for skilled jobs in the construction trades; and The School of Cooperative Technical Education (SCTE), an alternative school within the NYC Department of Education that provides students with the opportunity to learn trades-based skills.



Reality House Before (L to R): The stud forest filled with surplus and other junk. Junk piled on the fourth floor. Abandoned computers and monitors.

Implementation & Results: Over the course of a month in July and August, IRN managed NEW and SCTE crews who removed nearly 70 tons of reusable and recyclable materials from Reality House. More than 3,000 pieces of furniture and building materials are being injected back into New York communities through Build It Green. Two shipping containers were loaded with surplus furniture and supplies for disaster relief in

Nicaragua. More than 20 tons of scrap metal were recycled, along with 13 tons of paper and cardboard (the paper was shredded to assure destruction of confidential information). The computers, monitors, fluorescents, and other universal wastes were recycled to IRN standards. Overall, more than 90% of accumulated Reality House “junk” was reused or recycled; less than 10% was thrown away.

Reality House Reuse and Recycling			
Material	Market	Tons Disposed	Tons Recycled or Reused
Surplus Furniture	NYC & national charities		28.2
Building Materials	Build It Green – NYC		4.5
Metal	Local markets		20.0
Paper	Shredded to protect confidential info		11.3
Cardboard	Regional markets		2.7
Computers	Secure destruction w/ recycling		0.6
Ballasts	Regional recycler		0.3
Batteries	Regional recycler		0.1
Fluorescents	Regional recycler		0.1
Mixed Debris	Local carter; 84% recycled	1.7	9.3
Trash	Local carter	6.8	
Totals		8.5	77.1
Recycling Rate			90.1%



Reality House During (L to R): Dismantling studs, wiring, and wallboard. Loading out paper and cardboard. A NEW crew tackles a run of wall.

Green Job Training: No less important, more than 30 disadvantaged young men and women got serious job training. There's pressing need in New York for workers trained in deconstruction; before Reality House NYC had essentially no work crews with these capabilities. NEW is pressing ahead with planning to turn its Reality House experience into a permanent enterprise, IRN is proposing NEW

workers on more NYC-area jobs, and several of the NEW women have been offered union apprenticeship positions or interviews.

Deconstruction; C&D; surplus property; electronics; universal wastes; multiple recyclable commodities. Job training. And compared to calling in a wrecking crew, Columbia saved a bunch of money. Recycling doesn't get any better.



Reality House After (L to R): Studs and doorframes bundled for shipment. Paper, metals, and other materials prepped to go away. See "Before" photos for photo location.



NEW crew and instructors in the deconstructed, cleaned out and cleaned up Reality House