

# *the* **OUTRIGGER**

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**R. Baker & Son Magazine - 12 Years Strong**  
*Service-Disabled Veteran-Owned Business*

## **Interior Demolition Project: Working Around an Existing Data Center**

**Interior demolition projects are always more complicated when they take place in occupied buildings.** R. Baker & Son was recently challenged by an existing client to perform the complete interior demolition of the three 22,000 sq. ft. middle stories of a busy five-story facility while the bottom and top floors remained in operation. Adding to the challenge, an existing fourth-floor data center, the heart of the facility's operations, had to remain online temporarily due to project delays at a separate client facility where a new data center was under construction. Baker team members cordoned off the area, and fiber optic cables, data cables, and power cables were identified, isolated, and protected from any possible damage.

Several windows were removed on the second, third and fourth floors of the building to load in two Bobcats and two Brokk remote-controlled demolition machines. The Brokks were put into action removing block walls between the hours of 5:30 a.m. and 8:30 a.m. to avoid disturbing building occupants with excess noise. These window openings were used for debris removal for the duration of the project.

Demolition had been substantially completed on the fourth floor when a BIM scan was performed in the space, and it was discovered that some of the drain, waste and vent lines in the ceiling would require removal and relocation to accommodate new ductwork. This added task was synchronized with mechanical contractors who swept in immediately after demolition was completed to install the new prefabricated components. Baker crews also coordinated closely with the owner to schedule overnight shifts in the occupied first floor to remove plumbing, data and electrical lines that had previously served the second floor.

Following a two-and-a-half-week interval, R. Baker & Son returned to the facility when the new data center went online at the separate facility under construction. With the assistance of the IT group, the Baker crew carefully removed switches, racks and servers, followed by electrical cables and the room itself, completing our portion of the project to satisfaction.



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# Cement Reinvented: New Technology Lowers Massive CO2 Footprint by 70 Percent

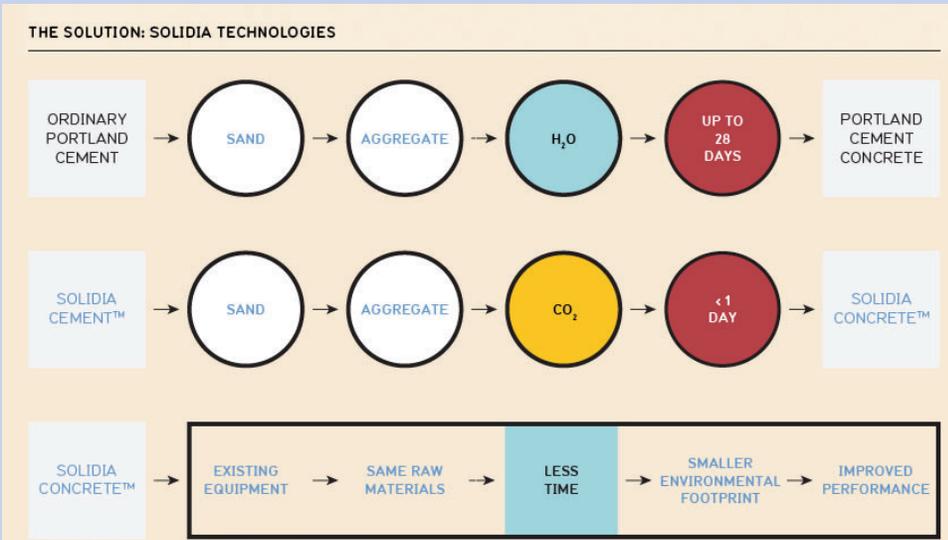


The world's focus in combating global warming has mainly fallen on the electric power industry, but a quarter of all emissions come from other sources. A Piscataway, New Jersey company, Solidia Technologies, has made huge strides in reducing the carbon footprint of one of the largest producers of CO2 emissions, the cement and concrete industry.

Concrete is the second most widely-used in the world, exceeded only by water, with more than 30 billion tons manufactured each year. The manufacture of its main ingredient, Portland cement (OPC), produces 5-7% of total global carbon emissions, making it the world's second-largest emitter of CO2. Solidia's new technology can lower the cost of cement and concrete while reducing carbon dioxide emissions by as much as 70%.

The patented processes of Solidia Technologies allow manufacturers to produce a specially formulated cement that requires less energy and emits 30% less CO2 than traditional OPC. Concrete produced with Solidia Cement™ cures with CO2 instead of water. Whereas OPC takes up to 28 days to cure, Solidia Concrete cures in less than one day. By lowering emissions and capturing and sequestering CO2, Solidia's technology will eliminate 5% of the world's CO2 emissions, reduce water usage up to 100%, lower energy consumption at cement plants equivalent to 260 million barrels of oil annually, and produce near-zero waste, keeping about 100 million tons of concrete out of landfills per year.

Experts say that Solidia's technology is easily adaptable, flexible, and highly promising. Now the challenge is winning over the cement and concrete industry. Among their many investors are BP, BASF, venture capital firm Kleiner Perkins, and LafargeHolcim, the world's largest cement manufacturer.



## R. Baker & Son is a Service-Disabled Veteran-Owned Small Business



R. Baker & Son is a VA-certified Service-Disabled Veteran-Owned Small Business (SDVOSB).

The U.S. government has established a requirement of awarding 3% of federal contracts to SDVOSBs to allow increased federal contracting opportunities for Service-Disabled Veteran-Owned Small Businesses. Working with SDVOSBs benefits federal agencies by helping them achieve federal goal set-asides and support veterans and small businesses. Contract bids that include SDVOSB involvement usually receive preference, increasing likelihood of job awards. And doing business with R. Baker & Son can help both private firms and governmental agencies achieve diversity program goals. Many private-sector businesses have adopted similar SDVOSB objectives as part of their diversity programs, as well.

If you are interested in finding out about doing business with R. Baker & Son to meet SDVOSB and diversity program objectives, please call us at 732-222-3553.

# Plant Consolidation Project: Prime Time for Equipment PM & Upgrades

A major manufacturing company was constructing a new world headquarters in northern New Jersey, and one of several pilot plants stood in the way. The solution was to consolidate two of their plants into one at a nearby site, and R. Baker & Son was brought in to perform the move.

As the vacated plant ramped down, a second shift was added at the second plant to keep up with production, presenting additional logistical and scheduling hurdles. The client turned to R. Baker & Son to handle complex logistical challenges in the tightly-scheduled project.

The plant equipment was slated to undergo maintenance, modifications, and upgrades prior to installation at the combined facility. Many pieces of equipment, including larger granulators, fluid beds, reactor tanks, pump skids, and heat exchanger skids were handled onsite. Others – smaller granulators, isolators, glove boxes, small mixers, etc. – were shipped to the manufacturer for service. This necessitated careful planning, disassembly, match-marking, and packaging of machinery, some of which would be shipped as far as Italy and Germany. The Baker Team also handled rigging, reassembly and installation at the second facility. Other refurbished assets were resold or shipped to other client facilities for reuse.



## CPR & First Aid Training In Construction

**There is no question that having employees who are trained in CPR and first aid has many benefits, first and foremost the fact that it saves lives.** But CPR and first aid training can be particularly important in construction and demolition, for several reasons.

First, there are more injuries and fatalities in construction than any other industry due to the nature of the job and its inherent dangers. With increased likelihood of accidents occurring, there is more necessity for construction and demolition workers to be trained in CPR and first aid.

Another factor that makes CPR and first aid training important in construction is lack of access. Every minute counts when a worker is severely injured or in cardiac arrest, and first responders may be delayed when responding to a call from a construction site.

When an accident or illness occurs in an office building or factory floor, for example, first responders are generally directed to a precise location where there is ready access to the patient. But on a construction site, with few signs, room numbers, or other identifiers, emergency personnel may have difficulty locating the patient. And, once located, the worker may be difficult to access. They may be on an upper floor with no elevators in operation, or on a demolition jobsite where walkways, stairs, or entire buildings may no longer exist. Just a few minutes' delay in reaching an ill or injured worker can make the difference between life and death, which is why it is crucial for construction and demolition workers to be trained in CPR and first aid.



At R. Baker & Son, safety is our number one priority. While OSHA recommends, but does not require, that one or more person be trained in first aid and CPR, such training is a requirement for every demolition worker, rigger, and millwright at R. Baker & Son.