

# CASE STUDY

## A&B MECHANICAL CHOOSES CPVC AS COST-EFFECTIVE SOLUTION FOR CONVERTING OLD INDUSTRIAL BUILDING INTO CONDOS

**A&B Mechanical**  
*Monroe, Connecticut*  
*Established: 2002*

### Connecticut Contractor Successfully Puts FlowGuard Gold® and Corzan® CPVC Systems to the Test for Large Project

Remnants of a once vital industrial center are still prevalent along the Housatonic and Naugatuck River Valleys in Shelton, Connecticut. A decline in industrial manufacturing over the years left the city in a state of regression. Yet, a rejuvenated city center is within sight, and emerging from the remnants of time long passed, a new vitality is being breathed into the community.

In the early 90s, the city of Shelton embarked on an ambitious revitalization program to clean up the industrial waste that was left behind and redevelop the area, creating green space and transforming old, nineteenth century industrial buildings into sleek, modern living spaces in the downtown area. Today, a 10-acre park, farmers' market and Veterans Memorial are now situated at the location known as the Riverwalk.



The former industrial buildings have taken some time to be revived, but the transformation is under way. One of the first properties to be redeveloped is Birmingham Mills, one- and two-bedroom condominiums at the site of a former corset factory. An eye-catching structure, the building blends old charm with new luxury. At one end of the 19th century building overlooking the Housatonic River, a wall of glass windows offers picturesque views.

To bring the historic building up to 21st century living standards, A&B Mechanical of Monroe, Connecticut was retained to install a modern plumbing system. Arnold (Arnie) Jones, managing partner, and project manager Geoff Klitnick agreed to use an advanced material to update the plumbing, installing FlowGuard Gold® CPVC pipe and fittings into the century old building.



"We had been using the FlowGuard Gold CPVC plumbing system in single-family homes, but we've used copper for the bigger projects," said Jones. "With the cost of copper getting out of sight and the increased difficulty in obtaining it, we needed to find an alternative material to effectively replace the copper."

For Birmingham Mills, A&B Mechanical installed 35,000 feet of FlowGuard Gold pipe along with larger diameter Corzan® CPVC for the main water line.

"This was the first time we used CPVC pipe in a project this large," said Jones. "I'm very glad we did. FlowGuard Gold and Corzan CPVC pipe and fittings turned out to be excellent products for this project. Not only were they easier to work with than copper, but the job went a lot faster, and we were able to save considerably on labor costs."

"CPVC joins better and faster than copper," said Jones. "For every copper joint, my crew can do 10 CPVC solvent cemented joints. It really saved a lot of man hours, reducing time on the job by at least 30- to 40-percent."

CPVC pipe and fittings are joined in a one-step process, eliminating the need for soldering and crimping. CPVC pipe is also more flexible than copper, particularly of benefit to Jones and his crew for the Birmingham Mills installation.

"With older construction, there are often compact spaces to access when installing the plumbing," said Jones. "The FlowGuard Gold piping was flexible enough to get into the tight spots that we wouldn't have been able to reach as easily if using copper."



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**Type of Construction:**  
Residential - High Rise

**Installation Type:**  
Renovation

**CORZAN®**  
PIPING SYSTEMS  
**FLOWGUARD GOLD®**

**CORZAN**

**FLOWGUARD GOLD**

"The FlowGuard Gold / Corzan plumbing was a good system to install in the old building," said Klittnick. "To retrofit in an old building can be a problem, especially when using torches to solder copper around old wood. Soldering can leave burn marks on the exposed wood, or worse, the building could catch fire."

The FlowGuard Gold / Corzan CPVC plumbing system had additional benefits Jones and Klittnick found to be of value, including improved insulation over copper.

"The efficiency is outstanding," said Jones. "CPVC has much better insulation than copper and reduces noise. Water running through copper can be very loud. With the FlowGuard Gold / Corzan plumbing system you don't have that noise."

According to an NSF International test, in fact, water flow noise in FlowGuard Gold pipe is up to four times quieter than through copper plumbing systems, and banging from water hammer is practically non-existent. CPVC plumbing systems also offer superior heat retention over metal pipes, equating to cost savings on hot water heating. The thermal insulating properties of CPVC minimize condensation, lessening the risk of damage from dripping pipes. More important from a reliability standpoint, FlowGuard Gold and Corzan pipe and fittings resists corrosion and scale build up, meaning less maintenance, fewer premature failures and consistent water pressure throughout the life of the system.

Although CPVC has been in existence for more than 45 years, the CPVC plumbing system remains a best-kept secret for many contractors who are still using copper out of habit for their jobs, as well as to developers who request it.

"Initially, the developer was concerned about using CPVC for the plumbing system at Birmingham Mills," said Jones. "He was familiar with the benefits of copper but hadn't had prior experience with CPVC. After we installed the FlowGuard Gold and Corzan CPVC system, the developer was convinced of the high quality of the products. Now he's putting CPVC plumbing systems into the specs for all his building projects."

Another benefit Jones discovered while using the FlowGuard Gold / Corzan piping system was the exceptional support from the technical staff.

"I liked the backup I received from the team. If I had a question, I simply called a FlowGuard Gold / Corzan CPVC technician, who was there to help. If someone wasn't available to immediately respond, they got back to me quickly. As a contractor, that's very important to me, because time is money."

Klittnick also found it helpful to attend FlowGuard Gold CPVC University in Cleveland, where he received hands-on training for proper plumbing system installation.

"I learned a lot attending the class, as far as what to do and what not to do. The entire experience has been very positive," said Klittnick, "and I look forward to using FlowGuard Gold and Corzan CPVC on more jobs – large and small – in the future."

Since Lubrizol Advanced Materials, Inc. (as part of BFGoodrich Performance Materials) developed CPVC plumbing

systems over 45 years ago, more than four billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including more than 12 million homes. For more information on the FlowGuard Gold plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 888-234-2436, x447-7393, or visit [www.flowguardgold.com](http://www.flowguardgold.com).



**CORZAN**  
PIPING SYSTEMS  
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