

# CASE STUDY

## FLOWGUARD GOLD® PIPE AND FITTINGS REPLACE CORRODED COPPER PIPE AT MASSACHUSETTS ASSISTED LIVING FACILITY

### Superior Plumbing

Dedham, MA

Established: 1993

### CPVC Pipe Chosen to Minimize Tenant Disruption and Expedite Installation Schedule

In 1981, when a West Upton, Massachusetts hat factory was converted into an assisted living facility, no one expected that the newly installed copper plumbing system would need to be replaced in less than 20 years.

But already in 1998, residents started complaining of water leaks from the pipes that ran inside the apartments, as well as in the corridors. Repeated efforts to repair and replace the corroded pipe caused a series of irritating interruptions to the



elderly residents. By 2001, the problem had become so bad that the facility's maintenance staff was working long hours to correct 10-20 leaks per week.

Out of desperation the building's owner, the Massachusetts Financial Housing Authority (MFHA), in conjunction with its management company, Harbor Management, agreed that the existing copper piping in the facility should be completely replaced.

Superior Plumbing, a 100-man plumbing shop based in Dedham, Massachusetts, was awarded the project primarily because it recommended that all of the copper pipes be replaced with FlowGuard Gold® CPVC pipe and fittings.

"We were able to demonstrate that the FlowGuard Gold® system represented a more permanent, corrosion-free alternative that would permit the conversion in a more timely manner," noted Bill Lane, Sr., founder of Superior Plumbing.

Speed of installation was a big benefit to Mike Kiley, director of property management for the Mill Haus Apartment project, as well as 30 other similar facilities.

"Previously it took two to three hours per apartment just to repair one piece of copper pipe," noted Kiley. "With the FlowGuard Gold® system, they repiped an entire apartment within that same period of time."

Given the ease of installation represented by the one-step solvent cement, Superior Plumbing estimated that it would take 6-8 weeks for its five-man crew to complete the 89-apartment project. To the relief of the MFHA, the project was completed within five weeks.

"We set up a special customer service booth to handle complaints caused by the conversion," said Kiley. "This is an elderly population which doesn't hesitate to voice a complaint. Surprisingly, we didn't get a single complaint. The crew was in and out of the apartment before the resident could be inconvenienced. We didn't have to relocate a single resident. This would have been impossible with copper, which would have taken three times as long."

Even better is the fact that the project won't have to be undertaken again due to pinhole leaks and corrosion since FlowGuard Gold® CPVC pipe and fittings will never pit, corrode or scale. This not only means fewer maintenance issues, but also a cost savings.

"The FlowGuard Gold® product can be installed for about half the price," explained Lane, who has been almost exclusively installing FlowGuard Gold® systems for nearly three years and currently installs them in more than 1,000 units per year. "Not only did the MFHA like the speed of the project, but they liked the fact that the project would not have to be redone within 20 years as with the copper pipe."

Lane additionally pointed out that CPVC offers yet another cost benefit as a result of its superior thermal capabilities which eliminated the need for insulation. "Since the FlowGuard Gold® systems don't sweat like copper, we don't need to insulate the pipe," explained Lane. "This is a big deal on larger units where economics can really make the

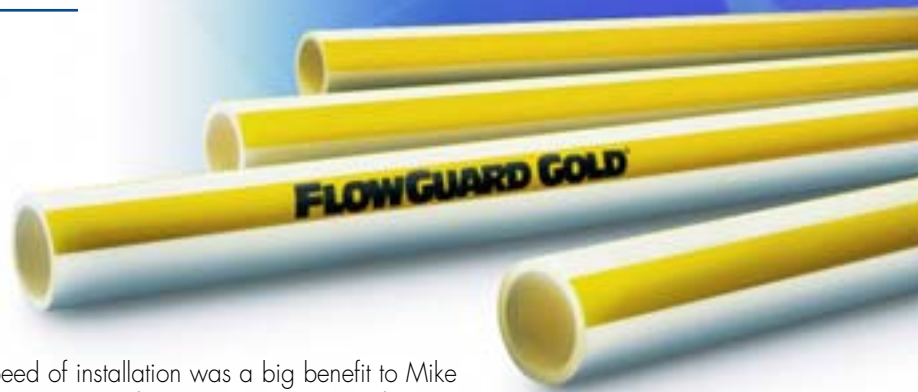
*"We were able to demonstrate that the FlowGuard Gold® system represented a more permanent, corrosion-free alternative that would permit the conversion in a more timely manner," noted Bill Lane, Sr., founder of Superior Plumbing.*

*"Previously it took two to three hours per apartment just to repair one piece of copper pipe," noted Kiley. "With the FlowGuard Gold® system, they repiped an entire apartment within that same period of time."*

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

**Installation Type:**  
Repipe

**FLOWGUARD GOLD®**  
PIPE & FITTINGS  
**NOT A DROP OF DOUBT.**



# FLOWGUARD GOLD®

sale. By eliminating the insulation, we estimate a \$350 per unit cost savings. If you're talking about a 200-300 unit project, that's \$90,000 saved!"

These same thermoplastic attributes that reduce sweating also create a quieter operation. "I like the fact that there is no echo with CPVC," noted Lane. In fact, testing conducted by NSF International confirms that FlowGuard Gold® CPVC pipe is four times quieter than copper because of its ability to reduce water flow noise and virtually eliminate water hammer. Noise reduction is particularly important in applications such as nursing homes, hospitals, hotels and apartment buildings, where the sound of water running in the shower or a toilet flushing late at night can disturb a neighbor "guest".



While noise may be considered a minor nuisance by some, few people would argue about the importance of safety – especially when an elderly population is at risk. Since the Mill Haus Apartment building was more than 175 years old, there were many old wooden beams that ran close to plumbing pipe.

"With copper, you have a tremendous fire risk in this type of environment because a torch is required," noted Kiley. "With the FlowGuard Gold® product, there is no soldering required, so no fire risk. Installations are both safer and cleaner."

MFHA, which finances more than 50,000 units in Massachusetts, was so happy with the FlowGuard Gold® CPVC plumbing installation that, not only is the agency identifying other dwellings for a possible FlowGuard Gold® conversion, but it also included Superior Plumbing in a special awards ceremony where the company was recognized for its fast, hassle-free work.

"I firmly believe we are doing our customers a favor when offering them FlowGuard Gold® pipe and fittings," said Lane. "They're faster, safer, less expensive, and quieter. I don't have to worry what will happen when I install a FlowGuard Gold® system. It just works. Anyone in this business would be crazy not to use it."

Since Lubrizol's development of CPVC plumbing systems over 45 years ago, more than three (3) billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including twelve (12) million homes. For more information on the FlowGuard Gold® plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 1-888-234-2436, X7393, or visit [www.flowguardgold.com](http://www.flowguardgold.com).

*"I firmly believe we are doing*

*our customers a favor when*

*offering them FlowGuard Gold®*

*pipe and fittings," said Lane.*

*"They're faster, safer, less*

*expensive, and quieter. I don't*

*have to worry what will happen*

*when I install a FlowGuard*

*Gold® system. It just works.*

*Anyone in this business would*

*be crazy not to use it."*

**FLOWGUARD GOLD®**  
**PIPE & FITTINGS**  
**NOT A DROP OF DOUBT.**

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. THE SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.

Lubrizol Advanced Materials, Inc. / 9911 Brecksville Road, Cleveland, Ohio 44141-3201 / 1.216.447.5000 / [www.flowguardgold.com](http://www.flowguardgold.com)

© Copyright 2006 The Lubrizol Corporation  
FlowGuard Gold® is a registered trademark of The Lubrizol Corporation  
FGG-CS13

**FlowGuard Gold® CPVC  
Marketing Department**

9911 Brecksville Road

Cleveland, Ohio 44141-3201 USA

888.234.2436 ext.7393

216.447.5000

216.447.5750 FAX