



Avoid A Water Crisis.



Radisson® Hotel Grand Rapids Riverfront

CASE STUDY

CuraFlo® Revitalizes Plumbing Infrastructure at Radisson Hotel Grand Rapids Riverfront

Specialized CuraFlo Solution Restores Water Flow, Water Quality and Pipe Durability

Hot water pressure at the Radisson Hotel Grand Rapids Riverfront had been steadily deteriorating for years, resulting in higher energy costs and numerous guest complaints. Repiping water lines throughout its property would be cost-prohibitive, time-consuming, and disruptive to business, so the Radisson looked to CuraFlo

for answers. CuraFlo responded with a process that renewed the aging and corroding piping system, resulting in greater water pressure and purity than ever before. The CuraFlo process took considerably less time to complete than conventional repiping – *and did so at a significant comparative savings.*



Radisson® Hotel Grand Rapids Riverfront

Situation Analysis

Located near downtown Grand Rapids, Michigan, the Radisson Hotel Grand Rapids Riverfront (“the Radisson”) is a 42-year-old, seven-story, 162-room full-service hotel.

Despite its desirable location and first-class amenities and service, the Radisson’s management had, over time, fielded an increasing number of complaints from guests regarding low water pressure and insufficient hot water. In early 2009 they concluded that something needed to be done. Pressure within the hot water pipes had steadily deteriorated over the past 10 years, compelling the hotel’s maintenance staff to set boilers at 150 to 160 degrees Fahrenheit to maintain an acceptable level of hot water. In addition, decades of patching and spot repairs had been made to the system, and the water lines had deteriorated to the point where additional repairs were not possible over a prolonged time frame.

Todd Roesler, the Radisson’s General Manager and a 25-year veteran of the hospitality industry, knew that while repiping was the traditionally accepted remedy to address these challenges, repiping would profoundly disrupt operations for months on end. “In a hotel, you have groups, leisure

customers and corporate travelers that arrive and depart every day,” he explained. “In a residential or multi-family facility, a plumbing crew can work from 9 to 5, and maybe the water comes back on. If the water is not turned back on, then residents get displaced for a period of time. With a hotel, I can’t shut down, and I can’t afford to take large chunks of the property off-line for long stretches.”



The Radisson features a restaurant and lounge, a swimming pool, fitness facility and meeting space.

Beyond the time constraints, Roesler knew that comprehensive repiping would literally tear the hotel apart. “Much of the plumbing infrastructure was inaccessible, and just from a financial standpoint, trying to estimate the replacement cost of all the items that would have to be removed during a repiping was overwhelming,” he said. “For a hotel, the list seems endless.”

Roesler sought an alternative – one that could be implemented with minimal disruption to the hotel and guests. He also sought a proven solution that yielded high quality, long-lasting pipes, alleviated future system leakage, enabled better water flow and ensured water quality well into the foreseeable future.

Tough Challenge Demands Unique Solution

In researching options to address the Radisson’s plumbing issues, Roesler discovered epoxy lining as a viable alternative to repiping with copper or PEX. “I had not known about epoxy lining or CuraFlo beforehand, and there are a number of companies out there that offer this service. In doing our due diligence, CuraFlo kept coming up as the company that we should strongly consider,” Roesler recalled. “I contacted business owners and property managers around the country who had worked with CuraFlo, and they just stood out above all the rest.” Roesler contacted a CuraFlo professional who conducted a thorough inspection of the hotel’s plumbing system. CuraFlo professionals are water infrastructure specialists carefully trained to evaluate a building’s entire water infrastructure, and work with the customer to formulate the best solution.

“I was impressed with CuraFlo’s ability to plan and then execute; I was impressed with how it ramped up and deployed its team, and how it accurately forecasted the time that it would take to complete this project,” Roesler added. “More importantly, CuraFlo recognized the specialized operational demands of the hotel industry, and was able to



Unlike repipe, CuraFlo’s use of epoxy lining to restore pipes prevents destruction of walls, tile and fixtures.

work within, and support, those parameters. That was a key factor in our decision to select CuraFlo.”

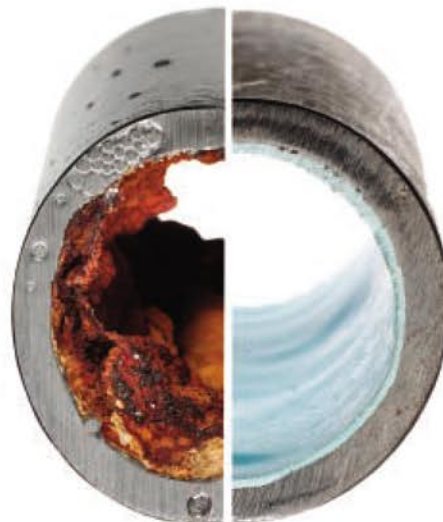
Often, complex projects require a blend of solutions: epoxy lining to mitigate property disruption and streamline costs; repiping in cases where epoxy lining isn’t recommended, or when rerouting is necessary; replacement of corroded valves and fittings; and repairs if leaks are isolated.

In the case of the Radisson, CuraFlo recommended a combination of epoxy lining and pipe replacement in areas where existing pipe was too structurally corroded to line. This recommendation ensured a sturdy, long-lasting solution and minimal disruption to the daily operation of the hotel.

The CuraFlo Difference

CuraFlo's epoxy solutions utilize innovative technologies and proprietary processes. These technologies apply to copper, galvanized steel, lead and cast iron pipes. The company offers two proven technology solutions: the *CuraFlo Engineered Flow Lining System®* for smaller diameter pipes (1/2" – 4" diameter) found in homes and buildings; and the *CuraFlo Spincast System™* for larger diameter pipes (3" – 36" diameter) such as water mains.

Additionally, the company's *CuraPoxy®* epoxy is unmatched in the industry. It is certified to ANSI/NSF Standard 61 (the federal government's stringent safety standard for drinking water) by both NSF International and IAPMO (International Association of Plumbing and Mechanical Officials) for commercial hot water, the highest standard established for potable water. It features the shortest cure times in the industry, which enable CuraFlo professionals to provide a speedy return to service. CuraPoxy has also been certified compliant to the relevant sections of the Uniform Plumbing Code® and the International Plumbing Code®. CuraFlo produces its epoxies in its own ISO 9001:2008 certified manufacturing facility.



CuraFlo's process cleans corrosion and tuberculation in pipes before lining them to prevent recurrence.

Smooth Process From Start to Finish

Work at the Radisson began in May 2010 and proceeded according to a week-by-week plan established at the outset of the project. The Radisson has a typical commercial plumbing configuration that consists of horizontal mains running the length of the building with vertical risers that run from the mains to the top floor. Each riser feeds 14 rooms through branch piping connected to individual fixtures. CuraFlo's plan was to isolate the individual risers and then line them at a pace of two risers per week.

For the Radisson, the first step of the CuraFlo Engineered Flow Lining System involved installing isolation valves on the risers. These valves allow for specific risers to be isolated from the mains while they are restored. The pipes were then drained and dried with pressurized hot air. Next, pipe interiors were "sandblasted" with abrasive particles to remove all corrosion, debris and mineral build-up. This cleaning process also prepared the interior surface of the water pipe for bonding with the epoxy.

Once the cleaning process was completed, technicians used compressed air to blow a specially formulated epoxy through the pipes, bonding it to the cleaned and prepared walls and creating a seamless, permanent and protective barrier. After the coating cured, a pressure test was applied to assure a leak-free system.

"These guys are master plumbers, and quite frankly, they taught us something about our own plumbing. They even gave us recommendations on specific plumbing system improvements for our property."

Todd Roesler, General Manager, Radisson Hotel Grand Rapids Riverfront – 25-year hospitality industry veteran

In some cases, the existing pipe was too damaged to be lined and had to be replaced. As Roesler explained, CuraFlo professionals responded accordingly. "These guys are master plumbers, and quite frankly, they taught us something about our own plumbing. They even gave us recommendations on specific plumbing system improvements for our property."

Work proceeded on a Sunday through Thursday schedule, allowing Roesler to have all rooms available for customers on the weekends. "In the summer, weekends tend to be our highest demand," he said. "That allowed me to keep the property up and running with little or no impact on guest arrivals and departures. On top of that, CuraFlo's ability to time critical elements of this project was exceptional. Occasionally, it was necessary to shut off water building-wide in order to implement repairs. In those cases, CuraFlo was able to bypass various risers so that only one or two sections were without water for more than a few hours at a time. It was amazing to me how quickly they were able to do that. From an execution standpoint, CuraFlo was first-rate."

CuraFlo's crew foreman on site worked diligently to keep Roesler and his team updated throughout the duration of the project with daily reports that detailed progress made to date, plans for the day ahead, and overall results.

Tough Test Yields Impressive Results

By July, the project was completed. Before work began, water pressure throughout the property was unacceptably low. Now, Radisson guests – many of whom visit the hotel every week on business – are complimenting Roesler on the improved water pressure and quick access to hot water. “Overall, we have not had a single complaint about hot water or water flow issues. In fact, guests who stay here regularly have told us that they’ve experienced a dramatic improvement,” he said. “One of our guests stays with us two to three nights each week, and he told us it’s like taking a shower in his own home, or a brand-new hotel! Hot water on demand is instant, all because there’s no resistance to the circulation.”

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*Todd Roesler, General Manager,
Radisson Hotel Grand Rapids Riverfront
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Beyond the satisfaction of his guests, Roesler underscored the cost-savings of selecting CuraFlo over traditional repiping. In fact, he estimated substantial per room savings by choosing CuraFlo over a property-wide repiping. “It proved to be an enormous cost savings for us,” Roesler said.

Overall, Roesler and his management team were impressed with CuraFlo’s ability to meet the unique plumbing demands of a hotel like the Radisson. “This was just a smart thing for us to do, and hotel owners and managers everywhere would be wise to consider it, too,” he said. “The CuraFlo team really became our business partner throughout this process. I’m pleased with the solution, with the work that CuraFlo performed, and with the people who stand behind it. I would absolutely recommend them to hotels throughout the country.”

Benefits of the CuraFlo Engineered Flow Lining System:

Faster and less costly than traditional repiping methods

Less disruption – residents can inhabit the property during work

Minimal outages – residents are never without water service

Improved water quality – bacteria and viruses don’t cling to epoxy

Better, more consistent water flow – corrosion won’t build up on epoxy

Eliminates traces of lead and copper from drinking water – epoxy barrier prevents water from reacting with metal surfaces

Easier compliance – CuraFlo helps pipes meet strict EPA standards

High quality – CuraPoxy is thicker and more reliable than competing products

Long-lasting solution with a 10-year warranty



About CuraFlo

Headquartered in Beachwood, OH, CuraFlo offers complete pipe restoration services through our corporate crew as well as a network of franchises. CuraFlo features a customer service culture and a commitment to quality that is unmatched in the industry. CuraFlo and its network of franchise professionals take time to consult with customers, understand their specific needs, then provide the best solutions to their water infrastructure challenges.

In 1996, CuraFlo was one of the first companies in North America to provide epoxy pipe lining services in commercial and residential multi-tenant buildings. Since then, CuraFlo has remained the provider of choice for pipe restoration services throughout North America.

In addition to a full array of infrastructure rehabilitation services, CuraFlo’s epoxy pipe lining solutions are widely renowned for alleviating problems with deteriorating pipes and plumbing systems. In many instances, this proves a highly effective alternative to pipe replacement. In fact, pipes restored with CuraFlo’s epoxy lining can gain an additional service life of 40 to 60 years.

Equally important, CuraFlo professionals can diagnose complex problems quickly and accurately, and offer the best solutions for specific project challenges. Sometimes, CuraFlo epoxy lining proves to be the recommended alternative; in other cases, repiping may be necessary. Some problems can even be solved by fixing a single valve or section of the system. Only CuraFlo professionals are equipped to know which solution will best meet customer needs.