



PVCO HELPS CITY OF CELINA MOVE BEYOND THE RUSTY IRON AGE

WATER SUPERINTENDENT ENDS DUCTILE IRON PIPE DOMINANCE AND EMBRACES MODERN TECHNOLOGIES FOR CRITICAL INFRASTRUCTURE IMPROVEMENTS.

Infrastructure upgrades are expensive and money is tight for many cities. Mike Sudman knows this. So as superintendent of water and distribution for the city of Celina, he often asks permission to upgrade old ductile water lines that are adjacent to new street projects.

By making improvements to an area the Ohio city is already scheduled to dig up, he saves time, money and avoids aggravation. But on one recent occasion, city officials chose not to approve the extra expenditure. Sudman accepted the decision, but warned that there could be problems. Expensive problems. And he was right.



For seven years, the only plastic pipe Sudman has installed for city water projects is Ultra Blue™ C909, a molecularly oriented polyvinyl chloride (PVCO) pipe. The product is a lightweight, high-strength pressure pipe for potable water and force main systems exclusively manufactured in the United States by JM Eagle. Since 2002, Sudman has supervised the completion of ten city and five commercial waterworks projects. He is so confident in C909 he now includes it in specs for all new water line projects. “We don’t give the contractor a choice. We say, ‘This is what you’re going to use.’”

But he can’t force city officials to allow him to ride the coattails of every new project. Sudman can only debate the point, which is: don’t expect new water lines to always integrate with existing infrastructure — decades-old, rusty ductile iron pipe that may be ready to rupture. By doing so, you risk having to dig up a \$1 million street project shortly after completion.

“We don’t want to put a brand new street on top of an old pipe line. We prefer to upgrade. So throw it in on bids with contractors so you rip up the street only once. I told them, ‘You’re going to have problems.’ It wasn’t three days after completing the project that we had to get in there and fix a break.” The new work was connected to a corroded iron pipe.

■ KEEPING PACE WITH PVC0

Every year, the American Water Works Association (AWWA), the authority on safe water use, sends out surveys to municipalities to gather data about issues such as infrastructure needs. Recent conclusions that cities are struggling to do more with less come as no surprise to Sudman. Celina, located in the heart of Mercer County near Ohio's western border, is in the same boat.

"Most of us work on tight budgets," he says. "And we're run by a city council, whose members are elected by our citizens, so they are not inclined to raise water rates. There's just not a lot of money set aside for big projects."

Obviously, budgets are stretched unmercifully as communities flourish. Sudman, who was raised in Celina, has seen his hometown grow. And with expansion has come greater demands on housing, schools, commercial districts – and waterworks.

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Ultra Blue C909 has aided Sudman's attempt to keep pace. Since the PVC0 pipe is specially manufactured to have thinner wall, all while boosting strength, it is lighter than other comparable materials. Workers save time because they can move the 6-, 8- and 12-inch pipe without the help of heavy equipment. Yet the lightweight pipe doesn't sacrifice pressure capabilities. In fact, the pipe boasts a Hydrostatic Design basis (HDB) of 7,100 psi as versus a HDB of 4,000 psi for conventional PVC pressure pipe. Also, the product conforms to the AWWA and/or ASTM F1483 specifications, with gaskets meeting ASTM F477 and joints in compliance with ASTM D3139.

Sudman says preparation and installation are simple, too. PVC0 pipe can easily be cut with a fine-toothed hacksaw, handsaw or a power-type saw with a steel blade or abrasive disc. (Standard pipe cutters should not be used. The

cutting wheel may crush or damage the pipe.) The joint connection is a push-on assembly in which the lubricated spigot end is inserted under the rubber gasket and into the bell end of the pipe.

If there were any lingering doubts in Celina about the durability of C909, they were dashed during the 2009 holiday season. Shortly after a new load of product was removed from a semi-truck and stacked for future use, a drunk driver ran a stoplight, lost control of his vehicle and ran over the whole pile of pipe lengthwise. Yet only a few pieces of pipe were damaged. Sudman was surprised and impressed.



"It is definitely a time saver. But when we started putting it in, very few municipalities were using it. When considering new concepts, very few engineers and city officials want to be the guinea pig. We have not had any problems with properly installed C909 pipe."

Regardless of simple installation and durability, PVC0 pipe addresses an important health and cost-of-labor issue. Plastic pipe ends the worry about rusting and "red water" complaints from customers. Fewer complaints mean Sudman's three-man crew is not overworked responding to a problem that can be prevented. Also, rust from iron ductile pipe consumes the chlorine residual that is meant to kill fungal growth in the water system. Plastic never rusts.

■ BIG BOX RETAIL COMPLIANCE

As the Celina population expanded, big-box retail chains, such as Walmart and Menards, came calling. Although tax revenue is welcome in any city, commercial development also puts a greater demand on municipal waterworks. After being named superintendent of water and distribution in 2002, Sudman developed a strategy that would accommodate the mutual need for growth.



Typically, large retail corporations arrive with a “cookie cutter” plan for taking up residence. They install a 12-inch water main, and then hook up to the local water system. In Celina, the Water Department assumes maintenance responsibility for the new installations after a 12-month period.

Since Sudman already had made contractors use Ultra Blue™ C909 when accepting city contracts, he began to apply the same standard for retail projects. By imposing

the non-negotiable rule, Sudman hoped to save Celina from inheriting corrosive or potentially faulty pipelines.

“Wal-Mart, for example, doesn’t actually own their new store buildings, they lease them so they are not stuck with real estate if a location goes bad. So from the city’s standpoint, we had to set some guidelines. ‘You either meet our design specs, or we stop at your property line.’ If they have a water leak, now they have to fix it, not us. But if they meet city specs that require C909, after one year it is the city’s responsible to maintain that pipe.”

So far, so good. Corporations have been willing to comply because they don’t want to walk away from a potentially lucrative store site.

In his 13 years with the Water Department in Celina, Sudman has seen commercial growth and the expansion of subdivisions. Although the industrial base has not grown a great deal, the native Ohioan sees a bright future for Celina – if money can be found to end the rusty Iron Age by installing more durable and cost-friendly PVC0.

“In last three years the new projects we have done have all been large. But in the next 30 years we’re going to have to get started on upgrading those side streets. That’s the way most of these towns are,” he says. “They put new pipe in where they are expanding, but they tend to forget the old stuff.”

For more information about molecularly oriented Ultra Blue™ C909 from JM Eagle please visit www.jmeagle.com or call (800) 621-4404.