

# New Way to Meet Infrastructure Demands

Polypropylene sewer pipe introduced to municipality.

**A** contractor on a sanitary sewer project in Kentucky recently tried something new: He introduced his municipal client to polypropylene sewer pipe, gained approval, and now that it's installed, the municipality is sold on it, too.

SaniTite HP from Advanced Drainage Systems ([www.ads-pipe.com](http://www.ads-pipe.com)), which meets ASTM F-2736, was used in the project in the Kentucky heartland. The U.S. Army is building a new \$192-million human resource center there at Fort Knox. The site is about 20 miles from Elizabethtown and will add

roughly 4,300 new jobs to the local economy by 2011.

City leaders expect an influx of new residents from the job growth and the planned construction of a new state highway between the two cities. They are also planning to install sanitary sewer infrastructure to support future growth in Elizabethtown, a city of 25,000 people.

The Billy Creek sanitary sewer is one of those projects. It began a year ago on 400 acres of undeveloped property that was annexed into the city limits for future commercial and residential development.

The \$1-million sewer project is a large one for Elizabethtown and three different types of pipe are being used. Original plans called for using traditional PVC pipe for part of the project. But before work began, contractor Jason Schmidt, vice president of Jeff Robards Construction Inc. (Shepherdsville, KY), approached the city about using the SaniTite HP polypropylene pipe, and the city agreed.

Schmidt said he took some time to test and evaluate the pipe for himself before recommending it. "I felt more comfortable with this than the other pipe [PVC]" said Schmidt. "What sold me on it was, I laid the two side-by-side and they were just totally different. The ADS pipe, it seemed like you couldn't hurt it. The other pipe, if you drop it, you're going to take a chance of cracking it. I think in the long run, it's going to be more cost effective because there's less chance of it breaking."

About 10,000 to 12,000 linear ft of 15- to 24-in. SaniTite HP polypropy-



*Because SaniTite HP from ADS is lighter than solid wall PVC or concrete pipe, contractors can lay 20-ft sticks at a time.*

lene pipe are being installed and connected directly to manholes, according to Elizabethtown city engineer Scott Reynolds. "From what I've seen in the ground, it's a really good pipe. It's lighter, easier to use, and not as brittle," he said.

Because the product is lighter, contractors can lay 20-ft sticks at a time, as compared to 14-ft sticks with the typical PVC pipe or eight-ft sticks with concrete pipe, said Schmidt. And the transportation costs are less than with concrete. The pipe's elevated performance features, with no additional cost, made the product a logical choice for the project.

Schmidt and his crew saw a 75 percent reduction in time and costs to stage the material at the trench, as compared with concrete pipe. "The ADS pipe definitely increases your productivity," said Schmidt.

ADS' SaniTite HP pipe is manufac-

tured utilizing a unique light grey resin color to enhance post-installation inspection and couples resin technology with highly engineered profile designs, resulting in a product with greater pipe stiffness and beam strength. The inert nature of polypropylene ensures long term performance in aggressive environments.

The pipe offers end users like Elizabethtown an upgraded performance when compared with traditional sewer products without additional cost, and Schmidt says that is the reason he will use it again and recommend it to other municipalities.

The polypropylene pipe used in the Billy Creek project has met pressure-testing and mandrel testing requirements in Elizabethtown, said Reynolds. Both the city engineer and the contractor are confident in the product. "Everything passed. We trust the pipe and we like it," said Schmidt, adding,



***SaniTite HP pipe is being used in a \$1-million sewer project to prepare vacant land in the Kentucky heartland for future development.***

"It's a very heavy duty pipe."

The Billy Creek sewer project is near completion and more sanitary sewer projects are likely as this town continues to grow. Reynolds says he will write approval for the use of polypropylene pipe into his town's bid specifications for future sanitary sewer projects.



## Pipeline Mapping on ACTA Expressway Project

The Schuyler Heim Bridge Replacement and SR-47 Expressway Project is being advanced through a joint partnership between Caltrans and the Alameda Corridor Transportation Authority (ACTA). The project proposes to replace the seismically deficient Schuyler Heim Bridge over Cerritos Channel and add a four-lane elevated roadway connection to Alameda Street that will bypass three signalized intersections and five at-grade railroad crossings. The Heim Bridge is an essential service link between Terminal Island and the mainland in Wilmington.

This project will provide an alternative route from Terminal Island, a major generator of port-related truck traffic, and provide direct access to local distribution centers and warehousing facilities in the South Bay area, as well as I-405 and SR-91, thereby relieving congestion on the Harbor and Long Beach freeways.

The Schuyler Heim Bridge Replacement and SR-47 project will enhance the efficient, secure movement of goods at the nation's largest port complex, as well as reduce congestion and improve mobility. Project benefits include:

- Replaces the seismically-deficient Schuyler Heim moveable bridge with a new safer fixed bridge.
- Creates an expressway between Ocean Boulevard on Terminal Island and Alameda Street at Pacific Coast Highway.
- Enhances mobility on local freeways by diverting five to eight percent of the port-related trucks.
- Diverts trucks from certain local arterials and commercial and residential areas.

- Facilitates future improvements to the Long Beach I-710 Freeway.

- Provides alternative route to the existing near-dock rail yard.

Geospatial Holdings, Inc. ([www.geospatialcorporation.com](http://www.geospatialcorporation.com)) has been awarded a contract to map a 12-in. high pressure gas line as part of the SR-47 Expressway Project in Long Beach, CA. The project involves the utilization of Geospatial's Smart Probe Pipeline Mapping Technology to map about 2,600 ft of existing high pressure gas pipeline installed over 90 ft deep under a highly congested navigable waterway undergoing a major expansion. It is necessary to accurately locate and map this line as the overall project requires pilings to be driven in the area of the pipeline.

Mark A. Smith, Geospatial's CEO stated, "This project is an ideal example of the importance and versatility of our Smart Probe Mapping Technologies. I am not aware of any alternative method to map this pipeline under these challenging conditions and depths."

Geospatial Holdings, Inc. utilizes proprietary technologies to determine the accurate location and position of underground pipelines, conduits, and other underground infrastructure data allowing it to create accurate 3D digital maps and models of all underground infrastructure.

GeoUnderground, the company's GIS database, enables users to view and utilize this 3D pipeline mapping information securely from any desktop or via a standard browser.