



# PLASTICS·PIPE·INSTITUTE®

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## BUILDING COMMUNITY



## SCOUT CAMP REVITALIZES WATER SYSTEM TO MEET GROWTH WITH HDPE PIPE

TALIHINA, Okla. - Due to its location, facilities, and programs, Camp Tom Hale has recently become the premier Boy Scouts of America camping facility in the tri-state area of Texas, Oklahoma and Louisiana, serving more than 600 scouts a week. The increase of scouts, however, required more water which made the two-inch main line that has supplied campers insufficient. This main line is almost four miles of PVC that runs through the most rugged terrain Oklahoma has to offer in the Kiamichi Mountains of the Ouachita National Forest.

Ten years ago, the camp started its program to be able to accommodate the current number of scouts and enable more scouts to participate in the future, the camp put in a high-density polyethylene (HDPE) pipe water and wastewater distribution system. This increased the number of scouts able to attend but also put a strain on the two-inch main. Replacing the main line would put the finishing touch on the revitalization project.

"We have grown from 400 scouts to 4,800 in the last four years and we now project that it will be typical for the camp to host upwards of 5,400 scouts a year," stated Lloyd Hasty, camp director. This popularity is expected to continue, and a recent congressional bill would allow the purchase of an additional 140 acres of land.

This system uses four- and six-inch diameter HDPE pipe in a three-and-a-half mile line that

not only ties together the camp's facilities, it also serves as an underground storage system for the camp's water supply.

Once the camp had a totally sealed HDPE pipe system, it only made sense to use HDPE for the new four-inch main that would snake through 3.6 miles of dense forest, across creeks and over mountains on its way to tie in to the county main.

Spearheading this new project was Terry Silkey, training and development manager of McElroy Manufacturing. "This is some of the most challenging terrain I have ever had to deal with," said Silkey. "The project was very demanding but it went quickly because we used coiled HDPE pipe." Located in Oklahoma, McElroy manufactures equipment used in the installation and fusion of HDPE pipe. McElroy is a member of The Plastics Pipe Institute - PPI.

Silkey used McElroy's LineTamer to straighten and re-round the coiled pipe with the use of hydraulics. This enabled the installation to move four times faster.

"We fused two or three sections together at a time and the toughness of the pipe made it possible to pull it back through the woods to put into the ditch," said Silkey. "If other materials were used, a road would have had to be built to get equipment and material back in to the job site.

"This project is a perfect example of why polyethylene is superior to any other method," he explained. "HDPE always seems to be the material of choice when there is a very tough job to do. The other materials get the easy jobs that don't put much strain on the pipe during the initial installation. Many times special backfill is needed around joints to protect the joint. For



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this project it was not necessary because the butt-fused joints associated with HDPE are as strong as the pipe itself.

“Some people don’t realize that over the life of the pipeline, the same kinds of tremendous forces that are applied to the pipe during the installation also occur after it is put into the ground,” Silkey continued. “When the earth shifts around, collars and joints that are used in conventional piping systems start to leak. That doesn’t happen with HDPE.”

Because of the difficult terrain there was never a straight path for the pipe to follow. The trench path took a lot of turns as it went around trees, boulders and private property. The HDPE pipe was able to conform to the territory. “We were able to make a fusion every 600 feet instead of every 20 feet. Each one took only about 15 minutes,” said Silkey. “We were able to walk behind the TracStar No. 28 through the narrow path and fuse the pipe wherever the section ended, regardless if it was in the middle of a creek or halfway up a steep hill.” The McElroy TracStar No. 28 is a self-propelled, all-terrain, self-contained, hydraulic fusion machine that fuses two- to eight-inch HDPE. Its rubber crawler tracks made easy work of the rocky terrain.

According to Tony Radoszewski, executive director of PPI and also active in the Scouts, “One scout law is ‘a scout is thrifty.’ Due to the nature of this project, this was a top priority. What the Scouts did can also serve as a valuable lesson to utilities and municipalities. A common misconception is that the cost of a HDPE water system is too great. In reality, the cost of this job was greatly reduced by the use of HDPE pipe because the labor cost was

dramatically lowered due to the ease of installation. Savings estimates are as high as two dollars per foot when using coiled pipe. Also, contractors don’t have to bid an HDPE pipe job with future repairs to leaky joints in mind. HDPE pipe lasts and so do the heat-fused joints.

“Camp Tom Hale is an excellent example of what the Boy Scouts of America was started for back in 1910,” Radoszewski shared. “The camp has the ability to touch more lives now and achieve the purpose of the Boy Scouts, which is to provide an educational program for young adults to build character, to train in the responsibilities of participating citizenship and to develop personal fitness. And now they’ll have plenty of water for many years to come.”



The Plastics Pipe Institute, Inc. (PPI) is a Texas-based, non-profit organization, founded in 1950, that is the major trade association representing all segments of the plastic piping industry. PPI is dedicated to expanding awareness about plastic pipe systems and promoting plastics as the material of choice for pipe applications. It is the premier technical, engineering and industry knowledge resource that publishes data for use in development and design of plastic pipe systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods. For more information about PPI and its available information, go to: [www.plasticpipe.org](http://www.plasticpipe.org).