

Arborist creates special nail to protect Audubon oaks

BY DAN LAWTON

Special to the Advocate

Dianne Weber, grounds director at the Audubon Institute, admired the massive trunk of a live oak tree in Audubon Park on a steamy August morning.

“This is the one your mom climbed on and your grandma probably climbed on, too,” she said about the awe-inspiring tree, whose branches stretched across the air like giant mossy tentacles.

Weber and her crew have been mulching, trimming and steadfastly protecting the welfare of the park’s 150 historic live oaks — some of which are more than 250 years old — since her arrival in 2006. Yet one of the persistent, looming threats is lightning, which killed four live oaks in 2010 and typically takes out between 10 and 14 of the park’s 4,800 trees each year.

The problem, according to Daniel Illg, an arboriculture supervisor at the park, is a combination of Mother Nature’s fury and the desire of visitors to scale the gargantuan trees.

Illg said that Audubon has installed over a dozen lightning rods on its most historic oaks. A lightning rod is an 8-foot metal pole that’s buried near the tree and connected to the trunk and branches by copper wiring.

The wiring is fastened to the bark by nails, and Illg said that visitors often rip the nails out of the bark while using the copper wire as a climbing rope to hoist themselves into the trees.

“I even tried greasing the wire, but that didn’t work,” Illg said.

Illg, who’s been working at Audubon for 10 years, decided the solution was to design a nail that would be strong enough to withstand climbers and wouldn’t damage the tree’s trunk.

He worked on the project with Vast Industries, a manufacturer of custom metal parts based in Morgan City.



Advocate staff photo by Eliot Kamenitz -- Daniel Illg, the arborist for the Audubon Zoo, shows off his design for cable holders for wiring the zoo's trees to prevent damage to the trees by lightning on Friday. He is standing in front of the 250 year old oak know as the climbing tree that will eventually get the new nails to replace the old ones.

Yvette Archuleta-Tudury, Vast's owner, said she met Illg at an event for minority and women-owned businesses and the project took flight from there.

She'd never built anything involving trees before, but after a few meetings, she began to understand the challenges facing Illg and the two started prototyping different nails.

Illg would send her sketches and she would manufacture the nails. After a handful of attempts, they built a product that wouldn't damage the tree and was strong enough to withstand even the most forceful climbers.

"The whole point is that you can't pull it out," said Illg about the nail. "You could hook a truck to it and not pull it out."

To demonstrate the strength of the nail, Illg did just that, inserting it into a piece of wood anchored to the ground and using his Ford F550 pickup to try to rip it out. It didn't budge.

In total, Illg spent two years working on developing five prototypes. The project earned Archuleta-Tudury a creative manufacturing award. She said she was blown away by the affection the arborists at Audubon had for their live oaks

"The most interesting thing I learned is how passionate these people are about tree conservation," she said. "I was just amazed that a lot of New Orleanians are so serious about these trees."

Illg, who calls himself the Lorax of the park, after the Dr. Seuss character who speaks for the trees, said he had goosebumps when he realized he'd finally developed the perfect nail for the job.

Standing below the De'Bore Oak, one of the oldest at Audubon, he pointed out the location of four bees' nests hovering above, explained correct tree terminology and gestured, like a proud father, to the trail of glistening, stainless steel nails that would protect the historic oak from lightning for years to come.

"Just think of everything these trees have seen," he said. "Imagine if they could talk."

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