

Competition Proves that INDOT Is 'Cantastic'

INDOT's can-do attitude has paid off, big time.

Three districts participated in the State of Indiana CANstruction Competition, in which teams from state agencies built structures out of canned goods. The food was later donated to Hoosier community food pantries.

Fifty-four teams participated. None of the INDOT creations was judged as the best structure, but what mattered was that our staffers bonded while helping those in need. OK, there was some bickering, especially over the types of structures to be built and team names. TraffiCANtrollers? Team Cantastrophe? Creative, yes, but maybe just a little out of control!

LaPorte District

Team Cantastrophe had a few catastrophes along the way but still ended up with a cool-looking construction barrel made from 230 cans.

Design Manager Jenny Guard saw CANstruction as a chance to help her staff take breaks during a recent period of intense work. Guard and designers Richie Zakrzewski, Andrea Long, Tony Krycka, Edgar Zambrano, Jordan King, and Stephen Bajzatt started the team. In-House Service staffers — principally Steve Travis, Stew Michels, and Ali Hammoud — soon joined. They chose to build a construction barrel since the group creates maintenance-of-traffic designs.

Travis, a Utilities & Railroad engineer, came up with the team's name but he caused the biggest catastrophe.



Andrea Long (from left), Jenny Guard, Tony Krycka, Richie Zakrzewski, and Steve Travis.

"Steve decided to fill in the center of the barrel with cans but used one with a dent as part of the base; he also put some of the cans upside down so they didn't stack correctly," said Guard. "These actions caused half the barrel to collapse."

In true engineer fashion, the group used an INDOT Standard Drawing of a construction barrel as the basis for their build so it would be close to scale.

"Since the cans weren't the correct sizes to make it full height, we had to modify it a bit," said Guard. "We used cardboard between some of the upper layers to relevel them since they started leaning a bit. The leaning had to be because the floor isn't level."

An unlevel floor? Really? Yet, that wasn't the only challenge; despite researching the topic, the group discovered that obtaining orange and white cans wasn't easy. Plus, some members didn't follow the directions and

bought cans that were labeled in other colors, so those were relegated to the middle of the structure.

Zakrzewski drew up the cans and barrel in MicroStation and estimated how many of each type of can was needed, to which Guard commented, "We finished within 5% of his estimate, so we were all pretty impressed."



The group was worried that nobody would recognize what kind of structure it built.

"But District Deputy Commissioner Matt Deitchley, who didn't have knowledge of the project, recognized it for what it was supposed to be when he first saw it, so we count that as a win," said Guard. "We're already planning our build for next year and hope to expand it to include a bigger structure and more cans."

The group delivered the cans to Christian Community Food Pantry in the St. Joseph County town of Walkerton.

Fort Wayne District

The district used 257 cans to build a replica traffic signal but coming up with a team name was the most difficult part.

"TrafficAntrollers? Or Traffic Cantrollers? Or TrafficAntrols? It's the little things," said Traffic Investigations Engineer Aubrea Jones, who teamed with Technical Services Director Jason Kaiser, Traffic Engineer Dana Plattner, Signal Systems Field Engineer Matt Sagstetter, Highway Engineer Colton Amstutz, and Assistant Traffic Engineer Dirk Schmidt to build the traffic signal.

The team debated whether the signal should be a 3- or 4-section head with a flashing yellow arrow.

"The easiest way to lock in an engineer for a group activity is to ask for an opinion on how to build something,"

said Jones. "After a heated discussion, we decided that an arrow would be difficult to create using cans and the standard 3-section head was sufficient."

Typical for engineers, the team developed a diagram in Microsoft Excel to determine the number and cans in each row and column, and then the number of each color required to build the signal. After finding out the height of a standard-sized can, they realized that the project could be built to scale. Getting the right-colored labels of the donated cans proved to be challenging.

"Dana was passionate about the vibrancy and contrast of the color scheme," said Jones. "The cans we selected for the red light were changed several times."

Preventing the cans from toppling wasn't easy. Rubber bands, fishing line, cardboard, and wood veneer were failed ideas. Adding tape around the entire traffic signal was considered before the group decided that the signal would appear too glossy.



Dana Plattner (from left), Jason Kaiser, Colton Amstutz, Aubrea Jones, Dirk Schmidt, and Matt Stagstetter.

"Colton mentioned that we could tape the tops of the cans every couple of rows to provide the necessary support," said Jones. "We appreciate Colton's unmeasured genius and humility."

Sagstetter brought in a spare signal head from the signal shop for reference and photos.

Another discussion involved the rules of competition and what constituted "self-supporting" and "not providing load-bearing support."

"We didn't win the contest but contend that we had the best CANstruction that followed the rules!" said Jones.

The district gave the cans to Community Harvest Food Bank in Fort Wayne.



Greenfield District

This amazing effort resulted in 2,017 cans collected, the second-highest total among all 54 state agency teams. More than a dozen employees built a snowplow, which was suggested by LPA Program Director Lavonne Roberts after the entire district was solicited for ideas.

"District leadership emphasizes team-building and community-service projects, and the CANstruction contest was a perfect opportunity to do both," said Finance Director Steve Vetrano.

Greenfield Subdistrict Operations Manager Ashley Everhart challenged her crew to bring in the most cans while offering to match the donation; this effort resulted in 1,500 cans as every employee within the Greenfield Subdistrict donated cans. Greenfield Unit 1 team members brought in the most cans (585) and were treated a week later by Everhart to a pizza lunch.

"A little friendly competition incentive never hurt," said Everhart. "I am so proud of our team's contributions."

The build occurred in the Technical Services building adjacent to the district office. System Asset Manager Amy Groff, who led the project last year, provided advice. Those from Customer Service, Finance, Engineering, Technical Services, and Communication helped on different days.

"It truly was a team effort from across the board," said Vetrano. "People had lots of suggestions on how the truck should look, and we took input as long as they had a can in their hand and were helping."

Amazingly, the snowplow structure had no supports or balancing materials.

"We learned some things along the way," said Vetrano. "I now know that a can of kidney beans or corn is $4\frac{1}{2}$ inches tall and $9\frac{3}{4}$ inches in circumference. I'll never forget it! And Dinty Moore Beef Stew is perfect to use as wheel hubs."

The large number of cans collected meant that the district could help support two communities. The Technical Services team used economic data to select food pantries in Henry County and Fayette County. The donations were delivered by district employees who live in those areas.

"The 2,017 cans equal 4.6 cans per district employee, and that should win a prize itself," said Vetrano. "This project was possible and successful because everyone in the district wanted to be part of it from top to bottom and left to right. Our district deputy commissioner, Clark Packer, and leadership at all levels made this a priority. We are very proud of how well the Greenfield District worked as a team to make this happen through the generosity of our own teammates."

What about next year?

"Look out because we may just build a whole fleet of snowplows with real falling snow!" said Vetrano. "Does anyone have a snow machine that we can use?"

Greenfield Unit 1 employees who helped with the efforts are Timmy Morgan (front), and Mike Cecil (from left, back), Austin Rader, David Bowles, Angela Lipscomb, Cody Freeman, Darrein Bowman, Craig Brewer, and Jesse Poe.





