

kcConnections



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31 Teams Accept the Challenge

Cost saving, time saving, and safety-focused ideas were everywhere at the 2011-2012 KC District Innovation Challenge. Thirty-one entries came together on Jan. 5 at the Lee's Summit Maintenance Building.

Entrants were asked to help improve tools or processes for one of these four areas: work zones, injury reduction, bridge maintenance or pavement maintenance. Judges looked at cost savings, safety, implementation, impact on the five year direction and convenience or ease of use when selecting the six district winners.

Each of the district winners will receive \$75 per person or a total of \$450 for

the team. Up to 30 innovations will be selected for the Statewide Competition. We are hoping all of our winners will be showcased in Springfield this April.

Judges selected the following innovations as the KC District winners:

Offset Mower: This pull behind mower mows under guard cable and around posts in the center median more efficiently than using a weed eater to accomplish the task. It almost eliminates people running weed eaters along guard cable. This will be submitted in the Injury Reduction category as it almost eliminates folks walking in the median

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kcConnections sources

- Construction** Bev Chrisco, 607-2101
- Regional Counsel** LeAnn Francis, 607-2082
- Administration** Judy Magruder, 607-2294
- General Services** Jody Jordan, 347-4100
- Human Resources** Amy Gagne, 607-2145
- Information Systems** JoAnn MacKay, 607-2096
- Right of Way** Dana O'Malley, 607-2056
- Traffic** Melanie Lanigan, 607-2171
- Editor** Michele Compton, 607-2150



Pictured left to right, the judging team included Joe Jarboe, Safety and Health Manager; Jim Taylor, Safety Officer; Maintenance Superintendents Wess Murray & Keith Hartwig (not pictured); Jesse Skinner, District Maintenance Engineer and Chris Redline, Assistant District Engineer.

Bolder 5-Year Direction Timeline

2012

- **January-March 2012:** SG 6-10 positions (technicians and support) filled competitively.
- **January 25:** video conference for SG 6-10.
- **January 31:** announcement of SG 11-16 positions.
- **April-May 2012:** SG 1-5 positions (support) filled competitively.
- **December 31:** all facility, equipment and operational changes complete.

2013

- **March 31:** all employee reassignments, staff reductions complete.

Bolder 5-Year Direction Questions?

- Visit: wwwi/intranet/hr/
- E-mail: SalaryGrade11-16@modot.mo.gov
- E-mail: SalaryGrade6-10@modot.mo.gov
- E-mail: SalaryGrade1-5@modot.mo.gov
- Contact your KC District HR representative

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The Off-Set Mower (left) and High Speed Debris Removal Tool are two entries that will be sent to the statewide competition.

and significantly reduces exposure to traffic and debris. Entered by: Chris Devine and Dave Winship, Chouteau; and Lloyd Crawford, Platte City.

High Speed Debris Removal: This tool is a MoDOT modified, commercially available product. It allows one person to remove debris from the highway at normal driving speed. Without this device, three trucks were needed to remove debris on busy highways. This innovation is more of a process improvement and will be entered in two categories: Work Zones – it eliminates them, and Injury Reduction – much less exposure to traffic. Entered by: Randy Burroughs and Tyler Smith, Lee’s Summit; and Dan Duncan and Ryan Davis, Stadium.

Safety Step: Adding grab handles and a step to the cinder bed and bed of the

truck has made climbing safer. This innovation allows drivers to safely check their load by having convenient places to maintain three points of contact. This will be submitted in the Injury Reduction category. Entered by: Damon Rinehart, Kearney; and Marcus Finley, Liberty.

Balloon Light Assembly: This innovation will be entered in the Work Zone category, but it also improves safety. The balloon light attaches to a truck to quickly help illuminate a night work zone or flagging station without having to position flood lights. You bring it to the work zone, slip it into the hitch, plug it in, and you are ready to go. Entered by: Joe Sims, Liberty; and Chris Devine, Chouteau.

Mill Head Teeth Changer: This tool removes and replaces grinding teeth on

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the rock saw or mill heads without using a pin and hammer. It is a big knuckle and time saver. Category: Pavement Maintenance/Injury Reduction. Entered by Matt Findley, Independence.

Wing Plow Securement: A large modified washer was welded to the wing plow to keep the chain from slipping down when secured. This holds the wing closer to the truck, thereby reducing the chances of an accident with the public. Category: Injury Reduction. Entered by Steve Vogt, Liberty.

“We received some great entries this year. The six chosen are great examples of innovations we are looking for state-wide,” said Chris Redline, Assistant District Engineer. “There were other incredible innovations at the challenge that we will implement district wide. They just didn’t meet the focus areas of this year’s state challenge. The one that stands out most was the telspar base cleaner. I appreciate the hard work of everyone who entered innovations this year and it confirms my belief that I work with tremendous people.”

Listed below are the other entries for the KC Innovations Challenge:

- **Dump Bed Catwalk:** Created to improve safety, the device allows employees to walk alongside the material bed more safely. The device folds alongside the material bed for easy transportation. Entered by Jeff Bailey, Matt Elsea, Bill Buesing and Chris Coon.
- **Danger Changer:** Motorist Assist rehabilitated a trailer that can be hooked behind the Motorist Assist truck. This trailer allows Motorist Assist to pick up road hazards as they encounter them in off-peak travel hours. With this tool, Motorist Assist can pick up road debris without calling Maintenance staff.

This improves safety, saves money, simplifies work, saves time, and promotes a one team culture at MoDOT. Entered by Scott Baines, Jim Bebe, and Percy Houston.

- **Tool Box Caddy:** This caddy provides a toolbox compartment for a person’s hammer and strap bar. This keeps the items from being loose in the cab, and from being lost in the larger tool box. This caddy saves time, simplifies work, saves time and improves safety. Entered by Kelly Jaeger.
- **Think Safety Trivia:** This training tool helps emphasize safety and refresh safety rules for employees. Questions are created and teams or individuals answer the questions to earn points. Those with the highest point totals can be rewarded by the supervisor using the noteworthy system. This begins a safety discussion and promotes interaction between supervisors and staff. It saves money, simplifies work, saves time, improves safety and reduces lost time accidents. Entered by Ron Cordes.

- **Crack Cinder Spreader:** This material spreader allows workers to create a higher quality seal patch using less material and labor to achieve the improved result. Employees are able to use a continuous motion to direct the material and needs to make fewer trips to the loader. The tool saves money, simplifies work, saves time, improves safety and improves customer satisfaction. Entered by Justin Anderson.
- **Back Up Sign Hitch:** This tool allows workers to attach a directional sign like “Road Work Ahead” sign to a smaller truck. This is especially effective on smaller volume routes when mowing, spraying, or using a pilot car, etc. An adjustable pin allows it to work on any size truck. It saves money, time, simplifies work and improves safety. Entered by Deon Grigsby and the Kearney Crew.
- **Sign Footing Puller:** The jack assists workers in pulling up sign posts and footing without using as much indi-

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Innovations such as this balloon light assembly or adding grab handles and a step to the cinder bed and bed of the truck make every-day work simpler, safer and more efficient. Pictured left to right: Chris Devine and Joe Sims; Cullen Brewer and Damon Rinehart.

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vidual effort. It saves time, money, work and improves safety. Entered by Kevin Long and Billy Cretzmeyer.

- **Sign Post Puller:** This helps workers pull telspar posts up with less back strain. It improves safety, saves time, saves money and simplifies work. Entered by Gary Burge, Lloyd Crawford and Al Richardson.
- **Fuel Transfer Pump:** This tool safely transfers 5 gallons of fuel. It is a pig tail coupler used on transfer tanks. It makes it possible to use 1 ton or smaller trucks to deliver fuel. Entered by Gary Burge.
- **Pick-up Sign Mount:** This tool allows signs to be posted on 1-ton or smaller truck so that the vehicle can be used to follow mowers or other heavy equipment. It saves money, saves time, simplifies work and improves safety. Entered by Gary Lloyd.

- **Safety Glasses/Ear Plug Combo:** This change in safety glasses allows users to attach the earplugs to safety glasses. This results in having a band to attach glasses to head, so they are not dropped. It also keeps ear plugs in one place close to the head. It improves safety, saves time, saves money and simplifies work. Entered by Jeff Brownsberger.
- **Pre-rolled Trimmer String:** This change in work process saves money time and work. Workers pre-roll Stihl trimmer string in groups before reaching the job site. This way it saves time while trimming and is a more efficient use of resources. Entered by Jeff Brownsberger.
- **Trimmer String Cutter:** The curved cutting end of this tool help easily cut the loop safely. It is safer and more efficient than using a pocket knife. Entered by Jeff Brownsberger.

- **String/Blade Trimmer Cutter:** Stihl offers a trimmer blade that can be placed between the string and bump and go head. This attachment is more effective and cutting down saplings and hardy weeds. It saves money, saves time, and simplifies work. Entered by Jeff Brownsberger.
- **Mixed Fuel Checker:** This device was created by using a recycled clear jug and a slider tag to identify whether the fuel in a jug was already mixed. This allows workers to know whether the jug is mixed without having to pour a sample out to see it. It saves time, simplifies work, saves money and improves safety. Entered by Jeff Brownsberger.
- **Snow Plow Hydraulics:** This process saves time and money by organizing how hydraulics are connected

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Snow Plow Hydraulics save time and money by organizing how hydraulics are connected to the truck.



Sign Straightener allows staff to straighten a sign without pulling and resetting the footing.



Mill Head Teeth Changer removes and replaces grinding teeth on the rock saw or mill heads without using pin and hammer.

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to the truck, resulting in a simplified work process. Entered by Andy Bolling.

- **Sign Straightener:** This tool allows staff to straighten a sign without pulling and resetting the footing. It saves money, simplifies work, saves time and improves safety. Entered by Kevin Jenkins.
- **Universal Post Puller:** This tool attaches to the truck and can pull a post from the ground. It is attached to hydraulics on the truck through the wing assembly. This improves safety by eliminating a high-strain activity. It also saves time, money and simplifies work. Entered by Deon Grigsby and the Kearney Crew.
- **Snow Plow Blade Checker:** This tool checks the wear of the plow blade. It checks the depth of the plow blade to see if it needs replaced. This is a fast, economical tool to

simplify checking snow blade wear. Entered by Joe Sims.

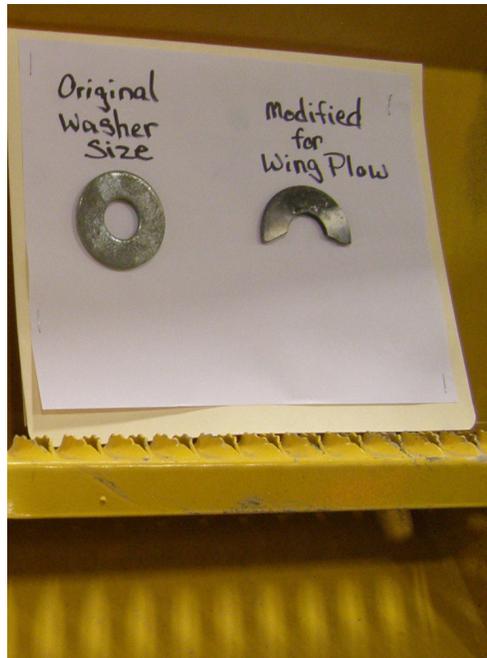
- **Tire Chain Training Tool:** This tool allows a trainer to show the correct way to put chains on a tire without having to bend down and do it on ground level. It simplifies work, saves time, and improves safety. Entered by Dave Blundell and Leon Johnson.
- **Telspar Clean Out:** Cleaning telspar bases has been a challenge for work crews. This four pound mixture of air and water effectively blasts and cleans the base. It saves money, simplifies work and saves time. Entered by Deon Grigsby, Damon Rinehart, Matt Findley and the Kearney Crew.
- **ACS Pretreating:** This operation is used to apply liquids for pretreating. This practice is run through an ACS system using the liquid tanks already mounted to the cinder bed. This set up will apply material to

two lanes at one once. It is able to monitor output and control the application with the ACS system. On average it runs about 3-4 gallons per bridge. It reduces costs, simplifies work, saves time and improves safety. Entered by Russell Rentel and Kelly Yaeger.

- **Sandbagger modification:** The team added a hydraulic unit to the sandbagger machine. This eliminates having to hook up the hydraulics to every truck that is delivering material. It saves time and improves safety. Entered by Jeff Bailey and Matt Elsea.
- **Skid Steer Squeegee:** The team added a squeegee to the skid loader making floor clean up in maintenance buildings easier and safer. Entered by Tyler Smith.



Tool Box Caddy has a compartment for a hammer and strap bar and keeps the items from being loose in the cab, and from being lost in the larger tool box.



A large modified washer was welded to the wing plow to keep the chain from slipping down when secured.



Snow Plow Blade Checker checks the depth of the plow blade to see if it needs to be replaced.

Training Raises Personal Safety Awareness

Solum Revertio Domus. It's Latin for "Everybody Goes Home," and the morning's mantra that enveloped the life-saving prevention and protection principles introduced by Lee's Summit Police Department (LSPD) Sgt. Rod Schaeffer during a personal awareness training class held January 4 at the Kansas City District Office.

Thirty Kansas City District employees attended the two-hour session designed to "train the brain" using a series of life skills designed to enhance personal safety awareness. The course included prevention, protection and "out" principles, workplace violence education, and stalking and abduction mitigation.

Support Services Manager Sherri McGregor recently relocated to Lee's Summit from Hannibal and attended the safety training. "I'm new to the city, live in an apartment during the week and often leave and return from work when it's dark," said McGregor. "This is good

common-sense information that I can use in my daily life."

Schaeffer, a 20-year veteran police officer who specializes in armed and unarmed combat and personal safety, leads the special assignments division of the LSPD to include SWAT, canine and accident investigations. His company, Mitigation Dynamics, provides risk management and personal protection training and strategic advice to organizations throughout the world.

Schaeffer began the session by discussing how important it is to pay attention to the world and people around us and use our senses to size up how you feel about them.

"Intuition – your keen and quick insight – is your most important sixth sense," said Schaeffer. "Trust that it will tell you in the moment whether a situation is safe or not."

Schaeffer's training focused on three key principles: prevention, protection and "out."

Prevention Principles include:

1. Examine
2. Don't enter unsafe environments
3. Stay in crowds
4. Point of escape awareness
5. Personal safety zone
6. Be assertive/confrontational
7. Knowledge of physical limits
8. Positive attitude

Protection Principles include:

1. Avoidance
2. Retreat
3. Awareness
4. Verbalization
5. Distraction
6. Release Techniques
7. Escape
8. Self-Defense

"Out" Principles include:

1. Figure Out
2. Get Out
3. Call Out
4. Spread Out
5. Hide Out
6. Keep Out
7. Take Out
8. Help Out

District Safety and Health Manager Joe Jarboe attended the training with employees and in the past has shared the "Out" principles in more detail with employees in his weekly safety news. He said that plans are in the works for all employees to participate in some form of personal awareness safety training.

For those in the training who wanted to learn more and those unable to attend, Schaeffer recommended reading *The Gift of Fear* by Gavin de Becker.



Sgt. Rob Schaeffer (right) asks Senior Traffic Specialist Bob Gillaspie to choke him in order to demonstrate a self-defense breathing technique. Photo: Steve Porter