

KUTC Newsletter

Summer 2004

A Local Technical Assistance Program (LTAP) of The University of Kansas Transportation Center
In cooperation with Kansas Department of Transportation and Federal Highway Administration

An issue on local road department management

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Please help us reach more people in your agency by routing this newsletter.

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No man is an island

Staff exchanges yield good ideas and networking opportunities for public works staff.

... by Lisa Harris

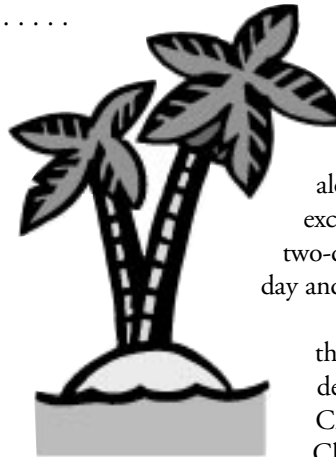
Even though you may be the only person in your agency doing your particular job, you are not alone. Other cities in Kansas have similar positions. Wouldn't it be great to be able to share ideas and information with your counterparts?

Trouble is, it's not easy to meet those folks, unless you hold an administrative position and typically attend meetings with other cities.

Some cities in Kansas have started staff exchanges to provide new opportunities for sharing information about public works operations. The exchanges provide a fresh perspective to their participants and many have found them enormously helpful.

Public works departments that participated in staff exchanges in the past few years include Hutchinson, Garden City, and Salina.

Hutchinson. Hutchinson's first staff exchange was city-wide with Garden City last fall and was initiated by their city managers. The exchange included department heads;



about 10 participants from each city. Dennis Clennan and Sam Curran, public works directors from Hutchinson and Garden City, participated in that first exchange, along with their senior-level staff. The exchange was held in Garden City over a two-day period; it started with lunch one day and finished just before lunch the next.

Hutchinson's staff learned that they were "significantly behind in developing GIS" after seeing Garden City's consolidated city-county system, Clennan said. After the exchange Hutchinson sent staff to Garden City to spend some time with their technicians. "Our city manager is now behind an effort to improve GIS here, and two new GIS technicians have been approved for 2005," said Clennan.

Clennan thought it would be beneficial to have a staff exchange at the departmental level, and he discussed the idea with Shawn O'Leary, public works director for Salina. As a result, O'Leary initiated a staff visit to Hutchinson in November 2003. About 17 people from each department attended the exchange. Clennan described the process:

"We started the day with coffee and donuts and small talk, and then I introduced members from my staff and asked them to talk a bit about their individual backgrounds and job responsibilities. I asked

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No man is an island,
continued from page 1

our Salina counterparts to do the same. We then conducted a tour of the city's public works facility. From there, individuals broke up into small groups to share information with their counterparts."

Clennan received comments back from staff from both cities. All were positive, he said. The most frequent comment was that the preliminary activities were not as important as the face-to-face discussions.

"Someone suggested that a superintendent and a few of his operators go to another city and meet one-on-one with people who are doing the same jobs," Clennan said. Another mentioned that master mechanics could benefit from a similar experience.

Kurt Koenigsman, Hutchinson's garage superintendent, welcomed the opportunity to ask specific questions of his counterpart in Salina (fleet superintendent Bob Peck). "I learned about [Salina's] maintenance schedule for vehicles, what kind of filters they use and how they bid them out, how they handle antifreeze, what kinds of lubricants they use, and things like that," said Koenigsman. Discussion topics were not planned ahead of time; they "just came up, and one subject led to another," he said.

Koenigsman and Peck have kept in touch after the exchange, and each has incorporated some of the other's procedures into his operations.

"[The exchange] was great. I would really like to do more of this with other cities," said Koenigsman.

Clennan also spoke highly of the experience. "It familiarized my staff with another organization's structure similar to ours," he said. "It's an opportunity to open lines of communication and develop camaraderie. That makes it easy to pick up the phone and call your counterpart when you want to know how things are done somewhere else."

Salina. Salina's public works director Shawn O'Leary echoed Clennan's comments. "There's great benefit in being on site and seeing another operation's facilities and equipment," he said. "Administrators network all the time, but our superintendents don't always take the initiative to get out and meet their counterparts. Holding an exchange forces them out there."

O'Leary made sure that each person he brought had a counterpart in the Hutchinson, to make the experience worthwhile. The hosting counterpart decided how the one-on-one time was spent, whether doing a tour or chatting in the office, or both.

O'Leary noted that some of his staff went into the experience with apprehension, but they came back enthused. "They learned they are not alone in their problems," said O'Leary. Another benefit is that staff come to appreciate their own city more, he said. "Most cities are already doing a lot of things well, and it's nice to have that validated."

Salina aims to participate in a staff exchange once per year; they are planning their next one in Hays, slated for this fall. O'Leary cautions that it takes time and energy to set up an exchange, but they are "very productive, very positive."

Salina's fleet superintendent, Bob Peck, is relatively new on the job, at three years, and appreciates the perspective the exchange gave him.

"It really helped to visit with one of my peers [Koenigsman] to share ideas—and he was new to the game, too," said Peck. Koenigsman was interested in the training Salina provides its technicians, and Peck shared his sources with him. They also discussed vehicle maintenance. "There are a lot of things changing out there in fleet maintenance," said Peck, "and it's good to stay on top of things."

Another resource Peck uses for connecting with

peers is the American Public Works Association's "InfoNOW Communities." These are on-line forums for sharing best practices. "It's a really, really good resource," said Peck. "I use it to tweak an idea. I gather information from people who have already tried it, and I try to make the best out of what they've done." Peck shares what he learns with Koenigsman in Hutchinson.

Garden City. Sam Curran, Garden City's director of public works, has nothing but compliments about their exchange with Hutchinson. Curran found his time with his counterpart, Clennan, to be particularly useful.

"Dennis had been doing this for a long time—much longer than I have," Curran said, "Dennis is a mentor to us younger public works directors, and it was great to sit down and have a couple of hours to learn from him. You don't get that kind of time when you run into each other at conferences," he said.

Garden City was especially interested in hearing about Hutchinson's consolidated purchasing system.

Curran also said it was reassuring to know that Garden City and Hutchinson were doing some things pretty much the same. "It lets you know you are on the right track," he said. All in all, Curran said: "We learned some things from them, they learned some things from us, and that's what it's all about."

For more information, contact Dennis Clennan in Hutchinson at (620) 694-2644, Shawn O'Leary in Salina at (785) 309-5725, and Sam Curran in Garden City at (620) 276-1260. ■

Correction: We misspelled the last names of Kansas County Road Scholar recipients Dave Auldrige and Robert Strait in our last issue. Sincere apologies to Dave and Robert!

Kansas LTAP develops guide for working effectively with the media

... by Lisa Harris

“Effective spokespeople are made, not born.” This statement reflects the spirit behind the new *Media Relations Guide* compiled by the Kansas LTAP. This seven-page booklet aims to enhance the credibility of road and bridge representatives who speak with the media.

The booklet contains information from eight departments of transportation (including KDOT) and Western Resources, Inc. It offers specific advice for how to handle interviews confidently and professionally. It also con-



tains information on how to be proactive in media relations; in other words, build relationships with media representatives and send news to them rather than having them surprise you

with a phone call when you up to your eyeballs in other work. Of course, you can't fend off phone calls when a crisis happens, but you can learn how to communicate calmly in those situations.

This publication was distributed and discussed at the July 2004 Road and Bridge Issues Workshop held in Hays and Manhattan, Ks. Brenda Herrman, City of Hays, noted that is a useful guide for anyone in a road department who may be interviewed by the media.

The booklet is presented in an easy-to-read, no-nonsense format. For a free copy, see page 15. ■

Kansas roundabout guide answers design questions

... by Courtney Hansen

As modern roundabouts gain popularity in Kansas and across the nation, reliable information on their design and use becomes increasingly necessary. To serve this need, the Kansas Department of Transportation has developed the *Kansas Roundabout Guide*, designed as a supplement to the Federal Highway Administration's *Roundabouts: An Informational Guide*.

The KDOT publication is written for project planners and engineers. It is intended to be a resource for the planning, design, construction, and operation of roundabouts in Kansas. It is designed to be a complementary resource to the above FHWA guide—and professional expertise—not as a sole source of information.

The guide states, “Roundabout design is not a specific science, but more of an art form within the con-

text of state and federal guidelines. The use of sound engineering principles and common sense is vital to the proper planning, design and construction of modern roundabouts.” The guide also instructs readers to have roundabout designs reviewed by someone who has plenty of experience in the area.

While this guide is not intended to cover all information pertaining to roundabouts, the information it does present is extensive and valuable. The guide includes a general description of roundabouts, as well as information on common public reactions and ways to involve the public and gain its approval. A planning section gives examples of locations that are either favorable or adverse for roundabouts and also includes information on the typical costs of construction. The guide contains information on the operational capacities of roundabouts and data from safety studies conduct-

ed around the country.

A section on designing roundabouts makes up the bulk of the guide. This section includes considerations for dealing with multi-lane roundabouts, drainage, pavement type and design, pedestrians and bicyclists, sight distance, and landscaping. Further sections include guidelines for signage, pavement markings, and lighting as well as for including roundabouts as part of a larger system of traffic control.

Overall, this guide should prove to be very useful to communities with questions about roundabouts. The information provides a good foundation for the successful design and use of this type of intersection.

This 175-page guide is available from the Kansas LTAP on CD. See page 15. If you have questions about the guide, call David Church, Bureau Chief, KDOT Traffic Engineering, (785) 296-3619. ■

Public works engineering: Just a job, or an Olympic event?

The following was written by George Wuertz when he was assistant county engineer for Riley County Public Works. George is currently taking a sabbatical from engineering to pursue a different calling—not because he didn't like his job! George and his wife will be going to Ecuador for several years to participate in church-sponsored community improvement programs.

Two weeks after I graduated from Kansas State University as a Civil Engineering EIT* in December 2001, I began my first day of work at the Riley County Public Works Office under Dan Harden. I met what seemed like the entire county staff the first day and toured what seemed like the entire county boundaries the next. Two new projects began that week, and I was to be the County's representative for them...time to play catch-up in high-speed mode! Meetings, introductions, tours, more introductions...

And that's how it started; one month a student, the next the assistant to the busiest man I'd ever seen...the County Engineer. Life in the public sector was a bit of an eye-opener for me. I came straight out of college, where my work could usually wait one more day, to the public works office where calls would stream in from everyone from our "friendly concerned" citizen to a contractor who just discovered a problem with one of the projects...and he says it's my job to fix it! Now I'm two years into the job,

and I am finally settling into the routine. (Is there ever really a "routine?")

What a couple of years it has been. I've been involved in a water line project, multiple paving and sealing projects, bridge and culvert projects, various building-related projects, a grant-funded restoration project, asbestos/lead/mold testing projects, nighttime public meetings, budget meetings, press conferences, insurance issues, contract writing, roofing projects, bond issues, etc...

Before taking this position I never dreamed I would become a multi-tasker. In college I sat for hours poring over a single subject. Never did I work on a problem in one class, get halfway through it just to start a new problem in an entirely different subject, just to get a phone call from someone wanting me to look into a different problem from an entirely different class...which is how public works life is quite frequently.

When I talk to my friends about what I do, I tell them that I'm a decathlete again. For two and a half years in college I competed in the decathlon in track and field and trained for 10 different events (both physically and mentally), one right after another. Now almost without knowing it, I'm continuing that trend, in a public works setting, by training to do 10 (or sometimes many more!) different projects all at the

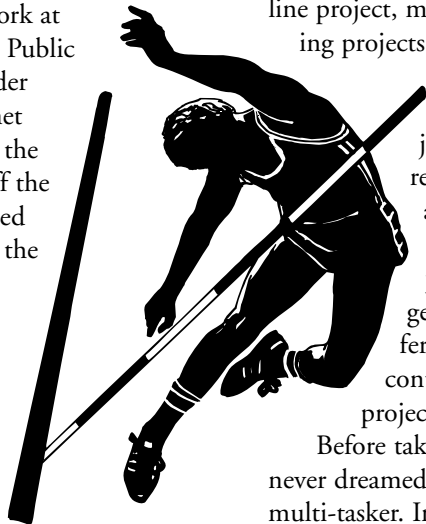
same time, that also require physical and mental stamina. Maybe my track career prepared me for engineering more than I thought!

Working for a small public works office (like many in Kansas) has given me the opportunity to do many different things, acting sometimes as the owner, the engineer/architect, the inspector, and the general contractor...sometimes all at the same time, depending on the projects. It has been an invaluable experience and I can truly say that I've learned more about "real world" engineering in the last two years than I ever did in five years of college, although I value greatly the solid foundation of core engineering classes I took at K-State. College gave me the tools to understand what I was learning in my new "classroom."

Public works engineering has been great, but it definitely has its challenges. For one, my age rarely seems to match my level of responsibility. This becomes a tough dilemma because I was raised to respect those older and more experienced than I am; however, it is my job to hold them accountable for doing quality work, regardless of age. So when I inevitably get worn out by this tugging of different forces, I remember a verse from the Bible in 1 Timothy 4:12 that says, "Don't let anyone look down on you because you are young..." Although this verse is used in the context of being a pastor, it seems to apply to many other areas of life, including engineering.

I also take solace in the fact that I am not alone in this struggle, because many young engineers are stepping up to take the place of those in the baby-boomer and earlier generations who have done a fine job of setting high standards. Yet these men and women are retiring in such numbers that it creates a knowledge and age gap for the new generation of engineers and managers to try to fill.

Public works in Riley County definitely has its challenges, but in many ways is no different than any



*EIT = Engineer in Training

other public works office, city or county. From my view as a rookie I've been amazed at the depth of knowledge needed to run a public works organization well. The materials of the trade, although age-old in their most basic forms, seem to change daily with the addition of some new technological discovery, amounting to newer and better products every year. And deciding which ones to use gets even tougher when four suppliers and five associations are banging at the door to get you to try their products.

Even after all the technical know-how is in hand, then comes the need for an understanding of local economics and politics. I believe these are two of the most under-emphasized topics in engineering curriculums, because they are essential to being a good public works engineer and getting projects

designed, constructed, and most importantly, funded. In addition to being technically proficient, a good public works engineer must also be part lawyer, part administrator, and part statesman (or stateswoman).

So what's the most important ingredient in public works engineering? As hard as it is for a young engineer like myself to admit, I must admit that the answer is *experience*—that wonderful blend of time, education, and practical knowledge, coupled with an understanding of the economics, politics, people, geology, and climate of a particular region of the country that really makes decision-making an art. No amount of studying will ever replace that, because experience requires time spent in the office, time spent in the field, time spent with the land, time spent with

people, and most important, time spent listening to others and learning.

Coming from the infamous Generation X, it sometimes scares me to think of the challenges that lie ahead and those who will face them with me. But lately I have been encouraged by seeing so many of my friends and others my age see responsibility and take it by the horns, vowing to raise the bar yet another notch. Just like the Greeks who took science, literature, art, and athletics to new levels, so continues a modern decathlon in every public works office in America, day after day, as we work to keep this great country moving, building, and traveling for generations to come.

"Public works is like housekeeping; you only notice it when it isn't done." ■

Good reasons to buy used equipment from a dealer

... by Lisa Harris

With the advent of internet purchasing, is buying used equipment from a dealer a thing of the past?

The answer is no. Dealers provide services not available on the internet, and many agencies are willing to pay the extra costs to get those services and the peace of mind that comes with them.

What are those services? One is thorough **equipment testing**. When you buy used equipment over the internet, "what you see is what you get," even if you travel to see the equipment (and you should). Unless you travel with diagnostic equipment or take the time to take the equipment to a mechanic, you won't really know what's going on inside the engine or in the hydraulic systems. Most dealers have the diagnostic tools necessary to thoroughly check a piece of equipment, and they won't sell it until problems are fixed.

A dealer also has a **reputation** to uphold; a dealer can't send out a piece of defective equipment and expect to have that customer's business again... or the business of any of the customer's friends, for that matter.

Then there's the **warranty**. Dealers typically provide a 30-day warranty for used equipment. You can't find that on the internet.

Yet another valuable dealer service is **delivery**. It can cost a lot of money to truck a piece of heavy equipment to your location after you buy it. Dealers typically include delivery in their price. And if something happens to the equipment en route, the dealer accepts the **liability**. Not so if you buy over the internet; you must often pay for a piece of equipment before it is moved, and once it is paid for, it is yours. You are liable.

Ron Karn, sales representative for Berry Tractor Company, Topeka, Ks., has 28 years of experience as an equipment operator and roads supervisor. He knows equipment first-

hand. Karn told me recently that some used equipment brokers won't sell to a dealer. Why not? Karn thinks it's because they know that if the equipment has problems, the dealer will find out—quickly. And dealers have the resources to go after the broker for restitution. Certainly not all brokers are unscrupulous, but they're out there, Karn said.

Karn has customers who buy some of their other equipment on the internet. But they do their homework, Karn said, and figure-in extra costs for traveling to see the equipment, testing some of the systems, delivery, and fixing problems that will likely crop up. Karn himself buys used equipment on the internet, for resale at Berry Tractor, after giving the equipment a thorough work-over.

Buying used equipment from a dealer might not always be feasible. But if you are looking for a reliable piece of used equipment combined with someone to stand behind its reliability, it's your best bet. ■

Sharpen your *human* capital, too

... by Rose Lichtenberg, Kansas
LTAP training coordinator

To have the best equipment possible, we sharpen our saw blades, tune our engines and upgrade our computer software. To use the best materials possible, we research what's available, talk with vendors and other users, and rely upon what has worked in the past.

Why not treat our "human assets" as we treat our equipment and material assets? That is, sharpen their skills, upgrade their knowledge base and give them opportunities to gain information from their peers.

One of the things that our staff can do that our equipment can't, is learn new skills. A motor grader may take on snow as well as gravel, but it will never learn to be a dump truck. Your equipment operators need to know a little bit about a lot more than just equipment—work zone operation for example.

We must operate on the assumption that everyone wants to do their job well. This may not always be the

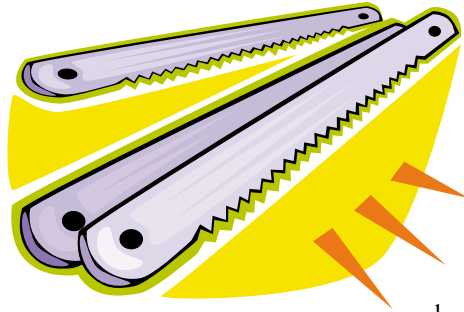
One of the things that our staff can do that our equipment can't is learn new skills. A motor grader may take on snow as well as gravel, but it will never learn to be a dump truck.

case; we all know people who just "put in their time." We can't do much more than hope these folks won't stay too long. We've all heard the old saying "What if we train him and he leaves? What if we don't train him

and he stays?"

The "good worker" needs several things to do a good job. Foremost among the good worker's needs are:

- (1) the equipment and materials to do the job to the standard set by the agency;
- (2) information on how to do the job; and
- (3) rewards for a job well done. Some would



Why not maintain our "human assets" as we do our equipment and material assets?

add (4) the vision of the leadership to get out of the way so the good worker can get the job done.

Let's assume that 1, 3, and 4 are in place. What can we do to assure that our employee has the information necessary to do the job well? My answer is: *provide training*.

Training comes in a couple of different packages. Internal (on-the-job) training is the most frequently-used option. Good workers are mod-

els for new employees to emulate; experienced equipment operators coach new-hires, for example. Agencies provide internal training designed to address specific concerns of their staff; maybe they show videos

or bring in outside experts to address particular concerns. Supervisors provide oversight and give feedback; this too, is on-the-job training.

External training is provided outside the work environment, provided by an outside entity. Examples in Kansas are the short-courses provided by the KS LTAP and KSU/KU TASK efforts. KS LTAP provides about 45 meetings each year, in various locations across the state, on topics such as culverts and drainage, snow and ice control, and work site and equipment safety. The KSU/KU TASK program provides about 12 meetings each year

on topics related to safety, such as work zone and traffic control, and signing and pavement striping.

So, here's my pitch: Whether the training is internal or external, when we provide a set training agenda for each of our employees, we recognize each individual as a valuable asset of our agency. After all, they are important enough to train. Training is an investment that can provide huge dividends. Skilled equipment operators are likely to be more efficient and have fewer equipment problems; trained flaggers are safer out there.

If we operate by *hoping* that our new hire can meet or beat our standards, if we *assume* our veteran flagger is a safe and alert flagger, if we *only trust* that mailboxes are still standing after a major snow removal event, we are in for a lot of trouble. We have to train our workforce. Good work skills are learned. ■

Training: What's in it for me?

... by Michelle Polston, Kansas LTAP training assistant

In today's job market, the difference between two people competing for a job often comes down to which person has more experience and training. Yet some employees avoid training like the plague. Training is not a waste of time and money; it's a smart investment in oneself. Here are some of its benefits:

1 Knowledge. Knowing everything about your job is nearly impossible. Knowledge is power and it will assist you in obtaining (and keeping) a job.

2 Advice. Many obstacles occur while designing, constructing, repairing, and transporting. Asking questions from others with a different point of view can solve a tough problem or simply provide insight for a new solution. Problems cannot be solved without asking questions.

3 Seeing is believing. Learning how to operate equipment and machinery can save money and time. This is an efficient method for your agency's funds and for your sense of accomplishment.

4 Friends and contacts. At training and workshops, strangers become friends and acquaintances. Also, talking with others from a similar area helps to generate new ideas.

5 Looks good on your resume. For one reason or another, the day may come when you will leave the agency you are currently with. If that happens, as mentioned above, training is a great asset to add to your resume and can sometimes be the deciding factor in who gets the job.

6 Confidence. Being able to answer a question and explain things to others builds your confidence level, both professionally and emotionally.

7 Safety. A well-trained staff saves time, money, and concern. It makes a huge difference when everyone on the staff knows exactly how to do their jobs safely.

If you are still hesitant about attending a certain workshop or training event, ask yourself: What needs do I have and how can this workshop meet those needs? If you can answer that question and are being encouraged to attend by your supervisor, consider the reasons mentioned above and attend the workshop with an open mind and a good attitude. For all you know, the workshop could lead to better wages, a better work environment, or even open doors to a promotion new jobs down the road.

Education regarding your job is never a waste of time. Even if you learn things in a workshop that don't directly affect you, the information can always be passed on to another who could significantly benefit from your experience.

Sources:

"The Top Ten Reasons to Become a NC Roads Scholar," *Transportation Tracks*, NC LTAP, March 2003.

"The Value of Training," by Steven Muench, *LTAP Matters*, Montana LTAP, Summer 2004.

"Why Attend Workshops? Top 10 Reasons," *Vermont Local Roads News*, Vermont LTAP, March 2003.

"Going to Training? How to Get the Most Out of It," by Robert Bacal, *Tech Transfer Newsletter*, California LTAP, Spring 2004. ■

This and that

Intersection safety for non-engineers.

Mehrded Givechi, Kansas LTAP, will be attending a pilot course this fall on intersection safety for non-engineers. The course was developed by the Michigan LTAP and is being piloted at various locations in the country to get feedback from participants, including local road agencies. Kansas LTAP plans to offer this course in 2005.

Put the Brakes on Fatalities

Day. This annual event, scheduled for October 10, highlights safe driving practices. For information about events in Kansas, call Larry Emig, KDOT Local Projects Bureau Chief, at (785) 296-3861.

APWA North American Snow Conference coming to a town near you.

This HUGE conference and equipment show brings together snowfighters from the United States and Canada to talk shop and see the latest equipment innovations. It's coming to Kansas City April 17-20, 2005. APWA is offering special admission to the equipment show for groups, for a significantly reduced rate. Call (816) 472-6100 for more information.

Updated field guide.

KS LTAP has updated the *Field Guide for Unpaved Rural Roads*, originally published by the Wyoming LTAP. The revised guide conforms to the MUTCD 2003 edition.

This small laminated guide has information on traffic control devices, railroad crossings, intersections, road surface management in general and in special situations. It is targeted to field supervisors and field personnel.

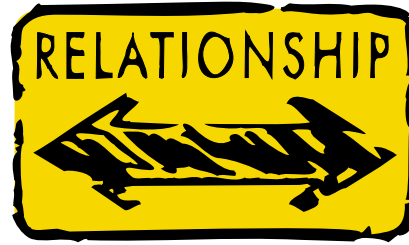
One copy has been sent to every county in Kansas. If you would like a copy, turn to page 15. ■

KDOT Korner

Working relationships require regular maintenance

... by Carla Mumma

[Note: KDOT produces an excellent newsletter for its staff entitled *Translines*. Each issue contains a message from the Secretary of Transportation, news on KDOT efforts, and motivational articles. This article, from the August 2004 issue, emphasizes the benefits of giving our best selves to working relationships. Reprinted with permission.]



Will Rogers said, "There is a law of relationships just like the law of nature. It's as difficult to separate the sun from the sunshine as it is to separate the love of your work from the love of the people you work with." Care, concern, respect, and appreciation serve as the "emotional glue" that binds us together in the workplace.

As we all consciously work on making people around us feel important and cared for, we make a differ-

ence. Think about how different our work day would be if we took time to tell co-workers how pleased we are with the way a particular job was done or that it has been a pleasure to work with them that day. Not empty flattery, but genuine appreciation for a job well done and the pleasure of being around good people. Recognition, praise, appreciation and encouragement motivate us all.

It is difficult to get any job done

without the cooperation of other people. As we see co-workers as important and help them feel that way, they return creativity, cooperation, and collaboration. We all need to feel cared about as people—not just for the work we do—and it's everyone's job to contribute. If we fail to honor others, they will not honor us.

It isn't very demanding to share a smile, give a greeting, or speak a kind word. The more positives we share the more others are affected, and we develop an attitude of gratitude. Winston Churchill said, "The optimist see the opportunity in every difficulty. The pessimist sees the diffi-

culty in every opportunity." As we see and share something positive in everyday situations, we help others to do the same.

our various tasks whether in the field, shop or office. Unfortunately, we cannot be efficient with people. We all need genuine caring to feel connected, and relationship maintenance requires our time and attention.

If we care about our car or truck and want it to last a long time, we know it requires more than occasional maintenance. We avoid the roughest roads, get regular oil changes and tune-ups, follow manufacturer's upkeep recommendations, and get needed repairs quickly. Likewise in successful relationships, we avoid trouble spots and hot topics. We seek opportunities to talk and listen for input and collaboration to solve problems. We pay attention to those things that cause stress and prepare with training and good instructions. We prevent problems when we can.

If we are paying attention when problems arise, we find the courage to take corrective steps quickly. Just as we would never continue to drive a car with a red light on the instrument panel, it is important to step in, ask brave questions, repair hurt feelings, and confront difficult issues when needed. In difficult situations it is important for all of us to resist categorizing people, refuse to take things personally, and remember every human being is worthy of respect.

The best things in life aren't things. If it weren't for the people, our lives would be dreary and tiresome. Relationships help us grow, enjoy life, and find success if we realize their importance and commit to making them work. Respect for others breaks down the old "us and them" mentality, which leads to only one conclusion: there is only "us." ■

What to do when something goes wrong



SNAFU (WWII military term):

1. **S**ituation **N**ormal, **A**ll **F**ouled **U**p.
2. **U**nfortunate circumstance or **O**utcome.

... by David Orr, P.E., technical assistance engineer, New York LTAP

If you don't learn from your mistakes, there's no sense in making them.

—Herbert V. Prochnow

You have just finished repairing a road, and the job is already showing problems. The Board is concerned about the condition of the work. Did the municipality get what it desired and paid for?

To answer this question, with any project, you must first ask certain questions and realize certain truths. The hard truth is: *No project is perfect.* To improve a project you can:

- prepare more accurate designs;
- write tighter specifications;
- perform more inspections and do more tests.

Designing, writing specifications, and inspecting are the basic functions needed to oversee and manage roads. These, of course, take time and cost money.

The amount of effort in the engineering of a project and the value of the engineering needs to balance. Most small municipalities do not per-

form engineering on many projects. The vendor doing the work provides much of the engineering. The highway crew and the highway superintendent do inspections during the job, but formal inspections are typically not done. This is usually acceptable because tried-and-true construction methods are adequate for lower volume roads.

Sometimes something goes wrong, even when doing tasks that have been done several times before. When a problem occurs, the vendor and the municipality usually engage in negotiations about what to do next. Sometimes the failure is so obvious that everyone knows someone messed up. However, more often, the problem is due to errors by both the municipality and the vendor.

Rather than play hardball, look for possible remedies and answer some questions to decide on the proper repair. To make a decision about a project, ask these questions:

1. *Did the municipality get its money's worth?* Here we ask the age-old question about the value of the work done. No one would feel good about paying a million dollars for a dump truck. But a jet plane would be a bargain at that price. The same holds true for road work. When there is a premature road failure, there may be defects in the workmanship, such as a poor job of compaction. The repair option chosen may be incorrect, such as surface-treating a road covered in alligator cracks. Or the job may have been done in the unsuitable weather, such as paving in the rain. Many times a combination of all three exists.

Do the defects showing up now appear to be the result of poor work by the vendor? Could you have done more to communicate the needs of the municipality? Was the repair selected

the proper one for the road in question? Did you get exactly what you asked for? Did you ask for the right thing?

2. *Was the relationship with the vendor fair?* The argument that “if the specifications are not met, the contractor should not be paid,” sounds great, but is not realistic. Some contracts are so burdensome that no one could meet them. On the other hand, if the contract has too many loopholes, then the municipality could be in trouble.

A good well-written contract protects both the municipality and vendor. The goal of a well-written contract is to improve communications to make sure all parties know what is desired. Seek a balance that gives the municipality what it wants and allows the vendor to make a reasonable profit. Even when doing work “on a handshake,” the same concepts need to be followed. When something goes wrong, did the vendor meet its obligations or provide a reasonable repair? Was the agreement fair?

3. *How will you improve the next project?* More important than deciding who to blame is to determine what is needed to do it right the next time. Look carefully at what may have caused the roadway to fail prematurely. Make a list of the possible defects and determine what you can do next time to keep the problem from occurring again. Does the crew need more training? Was the road prepared properly? Was the weather partially to blame? Were the lines of communication clear and open?

Let me give you an example I encountered that was the result of multiple mistakes by all parties. Put yourself in the shoes of a brand new highway superintendent and imagine

continued on page 11 ➤

Integrity is the core of public works competence

“Leadership is a combination of strategy and character. If you must be without one, be without strategy.”

— Gen. H. Norman Schwarzkopf

In 2002 the American Public Works Association (APWA) Leadership and Management Committee initiated an ambitious and unique survey seeking the opinions of public works professionals and

senior-level public works managers and elected or appointed officials.

What kinds of competencies were included in the survey?

The core competencies, developed by the Committee, were divided into five major areas of expertise, as follows:

1. *Technical* — 5 competencies;
2. *Managerial* — 12 competencies dealing with planning, budget and

(unimportant) to six (absolutely essential), and to try and use the full range of point values to obtain survey results that were meaningful.

What attributes were most important to the public works professionals who responded? The top five most important competencies, in the opinion of the APWA members surveyed, were all from one area of expertise: “Individual Behavioral.” In fact, all four of the competencies list-

The most important competencies

The following characteristics were rated the most important by public works officials and elected officials.



- **Demonstrates and encourages high standards of integrity, trust and respect for others.**
(Rated #1 by public works officials and #2 by elected officials.)
- **Takes responsibility for personal actions.**
(Rated #2 by public works officials and #1 by elected officials.)
- **Possesses ability to make decisions using the best information available.**
(Rated #3 by public works officials and #8 by elected officials.)
- **Demonstrates a commitment to quality public service.**
(Rated #4 by public works officials and #3 by elected officials.)
- **Conducts professional relationships and activities fairly, honestly, legally, and in conformance with the recognized APWA standards of professional conduct.**
(Rated #5 by both public works officials and elected officials.)
- **Takes timely and appropriate corrective/disciplinary actions with employees.**
(Rated #28 by public works officials, but #4 by elected officials.)

elected and senior appointed officials (mayors /managers/ administrators). The survey asked these participants to rank in order of importance a total of 62 core competencies for executive/senior level positions in public works and infrastructure management. The committee wanted to identify the most critical core competencies and special skills needed to effectively lead and manage a public works organization. APWA will use that information to develop agency-evaluation tools and public works management training. The Committee also sought to identify differences of opinion between

financial management, outreach, and human resources;

3. *Individual Behavioral* — 20 competencies dealing with integrity, interpersonal relationships, communications, consensus building/facilitation;
4. *Organizational* — 11 competencies dealing with organizational structure and staff development;
5. *Leadership* — 14 competencies dealing with vision, motivation, delegation, personal confidence.

The survey noted that each competency was important but asked the respondents to assign a ranking of one

ed in one subcategory in this area made the top-five list. That subcategory is *Integrity*. See box for the top-rated traits.

What do these data suggest?

First, integrity really does matter, not only to public works professionals but also to the mayors/managers to whom they report. Technical knowledge, planning skills, organizational expertise, and all the other competencies, each important in its own right, all take a back seat to personal integrity and strong character values. General Schwarzkopf’s statement is certainly

endorsed by the survey results.

Second, it would seem that the mayors and city managers would like their high-integrity public works professionals to have the assertiveness to resolve personnel problems in a timely manner. Perhaps they have had experiences of deferred action that ultimately required their involvement to resolve. The public works professionals, on the other hand, seem to think that other competencies are more important.

Why the difference in opinion? Perhaps the data reflects a tendency to avoid or postpone difficult personnel issues. A typical public works manager might consider it an interesting challenge to solve a technical problem or develop a long-range capital improvement plan, but the manager may procrastinate if faced with a nagging personnel issue. Perhaps the data suggests a need for additional human resources training and people skills. Perhaps many managers need more assistance from their local human resources departments.

What's next?

The results and comments contained in this article are just the beginning of this effort. APWA's Leadership and Management Committee is just beginning to evaluate the data in detail, and they are excited about the prospect of using the information to help APWA meet the most critical needs of its members.

For more information about this project, visit www.apwa.net.

Source:

"What are the core competencies required of public works professionals?," by Steve Magnusen, *APWA Reporter*, April 2003. Steve Magnusen is director of public works for Libertyville, Illinois; he chaired APWA's Leadership and Management Committee at the time of the survey. Call APWA for more information and for APWA's new core competencies brochure, (816) 472-6100. ■

What to do when something goes wrong, *continued from page 9*

I am describing one of your roads.

Back-Forty Road. Back-Forty Road was an existing surface-treated road getting a lot more traffic due to growth near its northern end. The project was to grind up the existing surface treatment and stabilize the base. Finally, a double surface treatment was to be applied.

During the first grinding operation, approximately two inches of

It is really most important to get the best job possible and to make sure this kind of problem does not occur again.

limestone crusher run were added, as well as calcium chloride. In May of the next year, the road was ground again, graded, and rolled. The following day the road was surfaced treated using a CMS-2 emulsion with 1A stone. A steel drum roller was used for both the grinding and the first surface treatment operation. Tailgate stone boxes, provided by the municipality, were used to spread the stone for the surface treatment. The contractor did all the grading and rolling work.

Only a few months after the completion of the work, the road was riding poorly. Several places had begun to break apart, especially near the north end. A large amount of aggregate accumulated along the shoulders of the road. In several places the edge had settled extensively, or appeared to have been graded poorly.

Everyone agrees the contractor should have done a better job of grading and preparing the surface for the new surface treatment. The use of a steel drum roller that bridged over any uneven areas kept proper bedding of the stones from occurring during the surface treatment construction. The stone boxes used to spread stone were not calibrated. According to the original agreement, the contractor still

needs to apply the second surface treatment, but this is not going to correct the defects on the road. The contractor is willing to "do the right thing" for the cost of this second surface treatment.

At this point you could dig the road up and start over. This is what some board members want you to do. Although this may be a solution, it does not take advantage of the value of the work that has already been done. While some will argue the contractor should be responsible, it is real-

ly most important to get the best job possible and to make sure this kind of problem does not occur again.

What did the managers of "Back-Forty" road do? First, a potholed area near the north end of the road was cut out, and new gravel base was placed.

Secondly, the settled areas were filled in with a shim course prior to paving. If they had tried to just fill the settled areas with a single lift, the traffic would have caused the thicker pavement over the settle areas to rut and they would be back where they started—with a rough area more prone to water problems. To help them, I recommended they use a 4 or 6 foot level and walk the road and check for places that appeared to have a settled. Any place more than a half inch depth below the straight edge were filled prior to paving the final lift.

For the final lift, the contractor placed a 3-inch cold mix over the entire road. This was then surface-treated after the cold mix had time to cure. The road is doing just fine according to the highway superintendent, after a year of wear.

Source: *Nuggets & Nibbles*, Cornell Local Roads Program, Summer 2003. ■

A Leg Up

But how much will it cost?



... by Pat Weaver ...

Discussion of development of a new bicycle or pedestrian facility usually gets to the bottom-line question pretty quickly: How much is this going to cost? Just like other transportation projects, the answer depends a lot on whether the project involves purchasing additional right of way, major drainage and ditch work, and other important factors.

The Oregon State Bicycle and Pedestrian Plan notes that "Bike lane striping can cost as little as \$2,000 per mile, but reconstructing a roadway requiring right-of-way and drainage improvements can cost as much as \$2 million per mile."

Attributing costs to bicycle facilities

States attribute costs to bicycle and pedestrian facilities in different ways. The Oregon DOT incorporates the cost of

Sample cost estimates for bicycle facilities

Facility	States		
	Florida (1999)	Virginia (2000)	Wisconsin ^a
Bike path, per mile			
12 ft, railroad conversion	\$ 128,000	—	—
12 ft, asphalt, landscaped	—	—	\$ 200,000 (min)
12 ft, limestone surface	—	—	\$10,000
10 ft, unspecified surface	—	\$ 92,000	—
Bike lanes, per mile			
5 ft each side, pavement ext.	\$189,000	—	—
5 ft each side, mountable curb	—	\$281,100	—
4 ft each side, curb and gutter	—	\$ 270, 300	—
Paved shoulders, per mile			
5 ft each side	\$102,000	—	—
4 ft each side	—	\$ 69,200	—
3 ft each side	—	—	\$ 20,000 ^b
Bike lane stripe, 4"	—	\$0.60 /linear ft	—
Wide curb lane (1 or 2 ft, both sides)	—	\$ 48,600	—

^a incremental costs
^b over gravel shoulders

Sample cost estimates for walking facilities

Facility	States		
	Florida (1999)	Vermont (1996)	New York (1994)
Sidewalks			
5 ft wide	\$46,000 (both sides)	—	\$ 3.75/sq. ft.
6 ft wide concrete	\$ 54,000	\$ 3.33/sq. ft.	—
4 ft wide asphalt, no curb	—	\$ 1.50/sq. ft.	—
Four-way pedestrian signal	\$3,700	—	\$15,000/unit
Striping			
12-inch	—	\$ 3.25/linear ft	—
4-inch	—	—	\$ 1.80/linear ft

Source: Pedestrian and Bicycle Information Center:
www.bicyclinginfo.org/insight/faqs/bicycle_planning.htm#third

providing paved shoulders on rural highways into the overall cost of the project since “shoulders are provided primarily for motor vehicle safety and to reduce long-term maintenance costs.”¹

Wisconsin uses only the “marginal cost” of bicycle improvements in attributing the cost to a facility. In other words, the per unit costs of

... the answer depends a lot on whether the project involves purchasing additional right of way, major drainage and ditch work, and other important factors.

Wisconsin bicycle improvements are those costs over and above the costs of the project without bicycle accommodation. Consequently the cost figures attribute to bicycle facilities may appear typically lower than those estimated in other states that do not allocate costs to each mode.

Are there any benchmarks?

Knowing that the costs can vary widely depending on location, are there any benchmarks out there to help with planning? The Pedestrian and Bicycle Information Center, based at the UNC Highway Safety Research Center (www.bicyclinginfo.org), provides some sample estimates from selected states on costs for developing both bicycle and pedestrian facilities. Typically, right-of-way costs and the costs of relocating utilities are not included in estimates for bicycle or pedestrian facilities. ■

¹Oregon State Bicycle and Pedestrian Plan, Implementation Chapter: www.odot.state.or.us/techserv/bikewalk/plantext/implemnt.htm#fin.

Liability checklist for local agency road departments

If you can answer *yes* to the following questions, your agency will be in a good position to defend itself against a tort liability suit. If you have other concerns, add them, and share this checklist with your commissioners.



Training

- Do all employees receive proper training for the work they perform and for the materials and equipment they use?
- Do employees understand the importance of using reasonable care in performing their duties?
- Are employees instructed to report hazardous conditions and to act on them?

Signage

- Do we have an up-to-date copy of the *Manual of Uniform Traffic Control Devices* (MUTCD) available to all employees?
- Are employees familiar with the MUTCD and are traffic signs and markings adequate and properly installed?
- Are sight lines clear?
- Do we have an up-to-date inventory of traffic signs, signals, markings and a plan for bringing them into conformance with the MUTCD as soon as possible?
- Are all road hazards posted with appropriate warning signs based on the MUTCD?
- Are all bridges properly posted for weight restrictions and low clearance?
- Are all dead-end roadways and railroad crossings properly signed?
- Do we properly sign work zones?

Roads, culverts and bridges

- Do we have an up-to-date inventory of road, culvert and bridge deficiencies and a written plan for correcting them?
- Are all roads and streets properly recorded and were proper procedures followed for declaring them as minimum maintenance, seasonal use only, abandoning them or accepting them as new?
- Do we have information about the right-of-way on our roads?
- Do we keep good records on agency activities including roadway conditions, accidents and maintenance work?
- Have we adopted standards in road design, construction, operations and maintenance?
- Are programs in place to implement them?

Administrative

- Do we have a procedure for receiving complaints, acting on them and recording all actions?
- Do we have a duly-adopted traffic ordinance and is it up-to-date?
- Is our equipment in good repair and are employees instructed to report faulty equipment immediately?
- Do we have a snow and ice control policy?
- Has our governing board considered insurance programs and researched which option best protects our local government unit?

Adapted from “An ounce of prevention is worth a pound of cure,” by Lori French, *Nuggets & Nibbles*, Fall 1996, New York LTAP. Adapted by the Texas LTAP’s *Lone Star Roads* and reprinted here with permission. ■

Reviews

... by Lisa Harris

Snowplow Safety: Parking Lots

19 minutes, National Safety Council and FLI Learning Systems, Inc., 1996. This well-produced video shows equipment operators how to remove snow in parking lots. It emphasizes procedures that reduce the likelihood of damage to property and the snow plow. The presentation suggests visiting each parking lot before winter, so that obstacles and drainage features can be located and a plan can be developed for where to stockpile snow. The tape contains footage of a snow plow removing snow in a parking lot, from the vantage point of the cab.

Some information on this tape is

geared towards new operators, but the tape provides plenty of useful information to anyone who plows parking lots.

The Right Choice for Rebuilding Roads

5 minutes, Portland Cement Association, 2002. This tape provides a short introduction to full-depth recycling with cement. In this procedure, a deteriorating asphalt road is milled on site, millings are mixed with cement and water, the mixture is applied to the road and smoothed, and covered with either chip seal or hot-mix asphalt. The technique is easy on the environment and does not change the profile of the road. The tape includes testimonials from county road managers and

equipment operators from a few different states. Good viewing for anyone interested in this technique for rebuilding an asphalt road in poor condition.

Asphalt Seal Coats

29 pages, Kansas LTAP, March 2003. This manual was originally produced by the Washington DOT. It explains different kinds of seal coats, their purposes, and correct application. Also includes information on the effects of weather, storage and handling tips, recommended equipment and coordination of the operation. The manual contains bulleted paragraphs and charts and illustrations to clarify the text. It is primarily designed for road crew workers and their supervisors. ■

Calendar

See our web site for even more calendar listings.
Go to www.kutc.ku.edu and click on "Training Calendar."

... 2004

October 2-4
League of Kansas
Municipalities Annual
Meeting
in Overland Park
Phone 785-354-9565

October 4-8
Heart of America
Rodeo and Equipment
Show
Gardner, KS
Call APWA Kansas
Metro Chapter, Jim
Evans, 913-327-6653

▲ Service Excellence in
Local Governments
Lawrence—9/28
Salina—10/5
Hutchinson—10/9
Contact: KAC
Phone 785-272-3585

October 10
Put the Brakes on
Fatalities Day
Call Larry Emig at
785-296-3861

▲ *Snow and Ice
Control
Hutchinson—Oct 11
Hays—Oct 12
Salina—Oct 13
Chanute—Oct 14
Topeka—Oct 15

October 12
APWA Kansas Chapter
Fall Meeting
in Lawrence, KS
Call Tamara Bennett
785-832-3133

▲ Work Zone Traffic
Control (a TASK
Workshop)
Oct 14—Horton
Dec 15—Hays
Jan 4—Salina
March 22—Olathe
Call TASK Program at
785-532-5569

▲ Signing and
Pavement Markings
Oct 14—Horton
Dec 14—Hays
Jan 4—Salina
March 22—Olathe
Call TASK Program at
785-532-5569

October 21
**Pavement
Management Systems:
Finding the Best Fit
(Click, Listen and Learn)

▲ *Gravel Road
Maintenance
Oct 19—Ulysses
Oct 20—Goodland
Nov 3—Emporia
Nov 4—Leavenworth

October 26-27
"MINK" County Local
Roads Meeting
St. Joseph, MO
Call Gary Rosewicz at
785-537-6330
campus.umn.edu/mltrc

▲ *Workplace and
Equipment Safety
Oct 26—Great Bend
Oct 27—Salina
Oct 28—Topeka
Nov 10—El Dorado

▲ Fall 2004
*Risk Management for
Crews
2 locations in KS

*November 4
Kansas Asphalt
Pavement Conference
in Lawrence, KS

*November 5
Kansas LTAP
Post-Conference on
Asphalt
in Lawrence, KS

November 9
7th Annual Local
Roads Seminar
Overland Park, KS
Call MO/KS ACPA
Call 913-381-2251

*For information on calendar items indicated with an * or to suggest a topic for an LTAP workshop, contact: Rose Lichtenberg, LTAP Training Coordinator, 785/864-2594, rosemary@ku.edu.

**To arrange for an APWA "Click Listen and Learn" workshop at your own location, call Ashley Gann at (816) 472-6100 ext. 3511. Cost is \$150 per downlink.

▲ = meets Kansas County Road Scholar Program requirements

November 23
(tentatively)
Fall KCHA Meeting
in Overland Park, KS
Call Mike Graf
785-628-9455

December 15
Low Cost Safety
Improvements
in Hays, KS
Call TASK Program at
785-532-5569

... 2005

January 5
Kansas Asphalt
Technology Transfer
Meeting
Salina, KS
Call K-State Continuing
Educ. at 785-826-2633

January 5
MUTCD for Law
Enforcement
in Salina, KS
Call TASK Program at
785-532-5569

Free Resources

Check off your selections, fill in the bottom portion, and return this form to:

KUTC Materials Request, 1530 W. 15th St., Room 2160, Lawrence, Kansas 66045 or fax to 785/864-3199

CD

Free to road departments in Kansas.

Kansas Roundabout Guide

This CD is intended as a supplement to the *Roundabouts: An Informational Guide* by the Federal Highway Administration. See page 3 for a description.

Videotapes

Two-week loan period.

Snowplow Safety: Parking Lots

19 minutes, National Safety Council and FLI Learning Systems, Inc., 1996.

The Right Choice for Rebuilding Roads

5 minutes, Portland Cement Association, 2002.

Publications

You are free to keep these unless otherwise noted.

Asphalt Seal Coats

29 pages, Kansas LTAP, March 2003.

Field Guide for Unpaved Rural Roads

28 pages, Wyoming LTAP, revised by Kansas LTAP, July 2004. See page 7 for a brief description of this guide.

Media Relations Guide

7 pages, compiled by Kansas LTAP, 2004.

Equipment

Available free—for loan to local highway agencies. Call us at (785) 864-5658 to arrange time period needed for loan. There could be a waiting list for these items.

Jamar Technologies, Inc. (DB-400) Turning Movement Counter Board

A basic model for recording turning movements at intersections. The board is is lightweight and comes with its own case.

Jamar Technologies, Inc. (TDC-8) Turning Movement Counter Board

Can be used to do turning movement counts, classification counts, gap studies, stop-delay studies, speed studies, and travel time studies. The board is lightweight and comes with its own case.

Free traffic counters!

We are giving away traffic counters free to Kansas counties, cities and townships. These are simple accumulating counters. Just add a hose and hardware.

Supplies are limited. If you'd like one (or a few), call Tom Mulinazzi at the Kansas LTAP, (785) 854-2928.

Order Form

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- send materials indicated
- address correction
- add to newsletter mail list

Note: Our lending library of videotapes, publications and CDs is available on-line, in a searchable format. Visit: www.ksltap.kutc.ku.edu.

If you do not have internet access, call Jason Pfister at 785/864-5658 and ask for assistance in finding what you need.

*For requests outside the United States: After receiving your request, we will notify you of the postage cost and will send materials after receiving payment for postage.

Kansas LTAP

Let us at the KUTC help you find the answers to your transportation-related questions.

KUTC, 1530 W. 15th St. #2160, Lawrence, KS, 66045
Call 785/864-5658 (fax 785/864-3199)
www.ksltap.kutc.ku.edu

The Kansas Local Technical Assistance Program (LTAP) is an educational, research and service program of the Kansas University Transportation Center (KUTC), located in the University of Kansas School of Engineering. Its purpose is to provide information to local and county highway agencies and transportation personnel by translating into understandable terms the latest technologies in the areas of roads, highways and bridges.

The *KUTC Newsletter* is one of the KUTC's educational activities. Published quarterly, the newsletter is free to counties, cities, towns, tribal governments, road districts and others with transportation responsibilities. Editorial decisions are made by the KUTC. Engineering practices and procedures set forth in this newsletter shall be implemented by or under the supervision of a licensed professional engineer in accordance with Kansas state statutes dealing with the technical professions.

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