Using Google Earth to Enhance Presentations

As a public works official, part of success on the job is developing good plans and projects for the short and long term. Another part of success, and one that can be out of the comfort zone for some, is communicating needs and successes to elected officials and the general public to get their support for those projects and plans. Decision-makers and voters need to be well-informed. A professional looking presentation lends extra credibility to your department. To coin a phrase from Norm Bowers of the Kansas County Highway Association, “it makes you look smart.” This article will describe how Miami County is using Google Earth to better communicate with its elected officials and the public.

Mapping bridges. Miami County’s Matthew Landes and Matthew Oehlert are developing ways for the county to combine free online services like Google Earth (a mapping service), with data available from the county and state. For example, they have created an easy and visually-appealing way to map National Bridge Inventory (NBI) data for their county. Google Earth provides satellite images and has the ability to highlight specific locations, similar to the illustration above. Combining a spreadsheet of the county’s NBI data with Google Maps produces a map with all the bridges in the county. Landes and Oehlert took it a step further; when you click on one of the bridge locations, a pop-up

Now What are Those MUTCD Deadlines Again?

Last year’s deadline changes made local agencies happy—and some confused.

Last year, federal deadlines were looming regarding traffic control devices—deadlines that were in the Manual on Uniform Traffic Control Devices (MUTCD). The time-frames were particularly onerous for local public agencies. Proponents for extending or eliminating the deadlines made their voices heard, and most of dates have been changed or rescinded. However, some local agencies have been telling us they are unclear about which dates are now in effect. This article will list the deadlines as they stand now, and let you know where you can find up-to-date information on deadlines whenever you need.
The above table, reprinted from the MUTCD, show the revised deadlines as established in Revision 2. Out of the 58 deadlines in the original version of the 2009 MUTCD, only the 12 listed above remain.

Three of the deadlines are tied to the effective date of Revision 2, which is June 13, 2012. For example, the deadline for establishing a management method for regulatory signs is two years after that date, or **June 13, 2014**. [Note: The deadline language in the Compliance Date column in the table does not specifically say “Revision 2,” but you can tell that is referring to Revision 2 by looking at the line alongside the left side of the table that indicates “Rev. 2.”]

How to find MUTCD revisions

When a revision is published for the MUTCD, the FHWA makes it easy for agencies to find and understand the changes. You just need to know where to look.

Start by going to the MUTCD home page at http://mutcd.fhwa.dot.gov. This page contains links to the entire manual (including any adopted revisions) and also links to just the revisions themselves. The home page also contains information on what is

<table>
<thead>
<tr>
<th>2009 MUTCD Section Number(s)</th>
<th>2009 MUTCD Section Title</th>
<th>Specific Provision</th>
<th>Compliance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A.08</td>
<td>Maintaining Minimum Retroreflectivity</td>
<td>Implementation and continued use of an assessment or management method that is designed to maintain regulatory and warning sign retroreflectivity at or above the established minimum levels (see Paragraph 2)</td>
<td>2 years from the effective date of this revision of the 2009 MUTCD*</td>
</tr>
<tr>
<td>2A.19</td>
<td>Lateral Offset</td>
<td>Crashworthiness of sign supports on roads with posted speed limit of 50 mph or higher (see Paragraph 2)</td>
<td>January 17, 2013 (date established in the 2000 MUTCD)</td>
</tr>
<tr>
<td>2B.40</td>
<td>ONE WAY Signs (R6-1, R6-2)</td>
<td>New requirements in the 2009 MUTCD for the number and locations of ONE WAY signs (see Paragraphs 4, 9, and 10)</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>2C.06 through 2C.14</td>
<td>Horizontal Alignment Warning Signs</td>
<td>Revised requirements in the 2009 MUTCD regarding the use of various horizontal alignment signs (see Table 2C-5)</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>2E.31, 2E.33, and 2E.36</td>
<td>Plaques for Left-Hand Exits</td>
<td>New requirement in the 2009 MUTCD to use E1-5aP and E1-5bP plaques for left-hand exits</td>
<td>December 31, 2014</td>
</tr>
<tr>
<td>4D.26</td>
<td>Yellow Change and Red Clearance Intervals</td>
<td>New requirement in the 2009 MUTCD that durations of yellow change and red clearance intervals shall be determined using engineering practices (see Paragraphs 3 and 6)</td>
<td>5 years from the effective date of this revision of the 2009 MUTCD, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first</td>
</tr>
<tr>
<td>4E.06</td>
<td>Pedestrian Intervals and Signal Phases</td>
<td>New requirement in the 2009 MUTCD that the pedestrian change interval shall not extend into the red clearance interval and shall be followed by a buffer interval of at least 3 seconds (see Paragraph 4)</td>
<td>5 years from the effective date of this revision of the 2009 MUTCD, or when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first</td>
</tr>
<tr>
<td>6D.03**</td>
<td>Worker Safety Considerations</td>
<td>New requirement in the 2009 MUTCD that all workers within the right-of-way shall wear high-visibility apparel (see Paragraphs 4, 6, and 7)</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>6E.02**</td>
<td>High-Visibility Safety Apparel</td>
<td>New requirement in the 2009 MUTCD that all flaggers within the right-of-way shall wear high-visibility apparel</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>7D.04**</td>
<td>Uniform of Adult Crossing Guards</td>
<td>New requirement in the 2009 MUTCD for high-visibility apparel for adult crossing guards</td>
<td>December 31, 2011</td>
</tr>
<tr>
<td>8B.03, 8B.04</td>
<td>Grade Crossing (Crossbuck) Signs and Supports</td>
<td>Retroreflective strip on Crossbuck sign and support (see Paragraph 7 in Section 8B.03 and Paragraphs 15 and 18 in Section 8B.04)</td>
<td>December 31, 2019</td>
</tr>
<tr>
<td>8B.04</td>
<td>Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings</td>
<td>New requirement in the 2009 MUTCD for the use of STOP or YIELD signs with Crossbuck signs at passive grade crossings</td>
<td>December 31, 2019</td>
</tr>
</tbody>
</table>

* Types of signs other than regulatory or warning are to be added to an agency’s management or assessment method as resources allow.

** MUTCD requirement is a result of a legislative mandate.

Note: All compliance dates that were previously published in Table I-2 of the 2009 MUTCD and that do not appear in this revised table have been eliminated.
Cities and counties have more time to comply with the MUTCD requirement for sign assessment, but the new deadline will still be here before you know it (June 2014). In our next few issues of this newsletter, we will highlight a few agencies that have started an assessment system to give you examples of different approaches to the task. There are five different ways to comply, according to the MUTCD.

The City of Burlington has their sign assessment up and running. They purchased Simple Signs, a software product by Rowekamp Associates, and hired a consultant (Bowers Civil Engineering) to drive the city streets and inventory the signs, rate their condition, and GPS-locate them as a baseline. The consultant also entered the data into SimpleSigns and trained staff on how to use it. The result was a turn-key system, ready to go.

Doug Mast, street superintendent, said that the approach worked well for them, and it was affordable. They paid $2,000 for the software (including a mapping feature) and $4,500 for the consultant’s work for the city’s approximately 450 signs.

Mast said that in small cities like Burlington, everyone wears several hats, and no one has the time to take on a project like this. Hiring-out the front-end work was a huge time-saver. The city purchased an inexpensive GPS “puck” that plugs into a laptop to make locating signs easier in the field. “It’s not perfectly accurate, but the unit can get the location within a few feet. It’s good enough for the inventory,” Mast said.

Mast and his staff use SimpleSigns to produce a list of the worst signs to help them plan for replacing them. The system keeps track of when a sign was replaced, what type of sign material was used, type of sign post, etc.

The staff training was helpful because “most of us are computer illiterate around here,” said Mast. Now the staff is comfortable using the system. “It works pretty well, really,” said Mast. And now they are MUTCD-compliant for a sign assessment system.

For more information on the City of Burlington’s assessment system, contact Doug Mast at (785) 364-2703 or burlstreets@mchsi.com. The SimpleSigns website is http://www.rowekamp.com.

Sources:
Using Google Earth to communicate  Continued from page 1

appears with a photograph of that particular bridge and a few key elements of its NBI data (see photo at right).

Mapping crashes. Other data Landes and Oehlert are mapping are crash locations and types. They even assigned icons for different types of crashes—for example a martini glass denotes a crash site where alcohol was involved. The crash map makes it easy to see where crashes are occurring in the county and which types of crashes are happening where.

How did they do it?

We’ll use the bridge map as an example. To make their map, Landes and Oehlert needed geocoded data (from a spreadsheet), a map (from Google) and a way for the spreadsheet to “talk” to the map so data elements would appear on the map. And they wanted to do this for free.

They first signed up for Google Docs and obtained Google’s copy of “Spreadsheet Mapper.” This is an application that places locational data on online maps available from Google. Read more at: http://www.google.com/earth/outreach/tutorials/spreadsheet3.html.

For the data for the bridge map, the next step was to get a copy of “NBI Importer.” The NBI Importer file links to Spreadsheet Mapper. (There is a link to NBI Importer at Oehlert and Landes’s blog: http://www.lpatech.blogspot.com.)

An application called Dropbox was used to add bridge photographs to pop-up windows.

Sounds easy, but is it? Getting things set up takes a little time, but it’s not difficult. Anyone who has installed a computer program on a personal computer and has uploaded files can do this. Once the different components are linked, getting a map produced is easy. You can have a spreadsheet mapped in 15 minutes or less.

Landes and Oehlert have step-by-step instructions for getting set up at their blog site at http://www.lpatech.blogspot.com/. Clark Rusco, Barton County engineer, has visited the blog and recommends it. “It’s pretty neat to look at what they have, and what they’ve done, and decide what you want to do at your own agency. Those guys are ‘on it’ for serving up information,” he said.

What’s next?

Oehlert and Landes update their blog as they try new technologies. They describe themselves as “just a couple of guys who work for a county government in Kansas. We are constantly on the lookout for new technology to get things done better and faster. The only limitation we have is our pocketbook.” So they are particularly interested in low-cost or no-cost applications—and sharing them with other local public agencies. They spoke recently at two transportation conferences in Kansas, sharing information on some other applications they are trying out, such as Shape2Earth, Google Fusion Tables, and RoboGeo. Go to their blog to read more about using these in public works presentations.

Conclusion

Elected officials and the general public are more tech savvy these days, with daily use of computers and GPS navigators and smart phones. If you are still using paper maps to talk with the public about infrastructure, consider upgrading to something more polished and up to date. Landes and Oehlert have shown that you don’t need a full-blown GIS department to create maps. Online tools make it possible to create maps for your presentations without GIS or IT expertise.

For more information visit Landes’s and Oehlert’s blog at http://www.lpatech.blogspot.com/

Sources:
• Interview: Clark Rusco, May 1, 2013.
Are You Using Social Media?

By Kirk Raymond

In a profession not especially known for its social skills, does using social media make sense? More and more public works agencies are saying yes. Find out why in this article.

What social media offers

Social media refers to a variety of web and mobile device-based technologies that connect users on social media websites. These sites allow users to share resources such as images, videos, messages, articles, PowerPoints, and micro-blogs. To be competitive with other products, social media providers seek to provide a unique service, such as the sharing of a particular media type—for example, video, for YouTube.

The main benefits of social media are: 1) the ability to share information instantaneously (a fallen tree blocking a road...a traffic signal not operating properly...); and 2) the ability to share links to other related media to obtain more information or resources on a given topic—all from a computer or handheld device, anywhere, anytime.

Types of social media

Social media types vary due to the type of media or information shared and how it is displayed. Below are some services most commonly used by public works departments:

Facebook, a networking site, allows a user to create a unique page (“profile”) that links to other users’ profiles to share images, videos, and messages through “posts” on the profile page. Twitter provides for real time micro-blog updates, or “tweets,” that users can “follow” (subscribe to). It’s similar to texting on a cell phone, but the text goes to a group of people. A blog is like an electronic newsletter but differs in that an e-newsletter is typically distributed through email whereas a blog is viewed on one central location and messages are archived according to date published. Unlike Twitter, a blog does not have a text limit. An RSS, or Rich Site Summary, uses a special reader to check a user’s subscribed information sources (a.k.a. “feeds”) regularly for new postings. It downloads any updates that it finds, and provides a user interface to monitor and read the feeds. Flickr allows users to upload pictures to share with a community of users. SlideShare is a PowerPoint-sharing site. You can create a link from a blog, Facebook, or Twitter to the location of the PowerPoint on SlideShare’s site. YouTube allows the uploading and sharing of video.

Pinterest is a photo sharing site, organized by a theme.

Social media differ from traditional websites in that users are notified of new content rather than having to take the initiative to go to the website to find out what’s new.

Who is using social media?

Some examples of cities in Kansas, with links to their social media sites, are shown on page 6. Details are below.

The city of Overland Park uses Flickr, Twitter, and Pinterest. They are using Flickr to show pictures of the Antioch and I-435 construction phasing and completion. The Pinterest site includes pictures of workers crack sealing and operating trucks for snow removal. Videos on the YouTube site focus on snow removal issues and high crash intersections to avoid during extreme weather.

Olathe uses their RSS feed to keep citizens informed about recent news.

Garden City’s social media platforms, Facebook and Twitter, account for 481 twitter followers and 2,531 “likes” on Facebook. [A “like” creates a connection between the user and the Facebook profile to be liked.] Garden City’s public works department uses social media to broadcast things like road closures and water line breaks, said Ashley Freburg, communications specialist. Twitter and Facebook have been used since 2009. The City uses Twitter to broadcast news to other media outlets; the city relays a message to the newspaper and radio in real time, with a link for updates. Although “the message may be short and concise, we can link the message to a longer news piece,” Freburg said.

KDOT uses a variety of social media sites, including Twitter. Kimberly Qualls, KDOT’s Public Affairs Manager, uses Twitter to provide weather updates, traffic information, and road closures to KDOT’s Northeast Kansas audience. Pictures, videos, and other forms of social media can be reached through their Twitter page. Qualls has received feedback that people are using the site. She even received feedback from an unexpected source—a local pizza delivery driver. “He told me tell me he uses our page to get credible and instantaneous road and weather updates,” she said.

Transportation Matters, formerly an e-newsletter of the Mid-America Regional Council (MARC), recently switched to a blog format. MARC’s Jen Houston said MARC uses Facebook and Twitter to provide kernels of information and then links this information to the blog.

Houston said the blog’s advantages are efficient archiving, filtering, and searching, and the ability to engage readers by soliciting and posting their comments. MARC used the Atlanta Regional Council’s blog as a model.

Further afield, the Washington State DOT uses SlideShare to upload important meeting presentations and highlight construction projects. Check it out at http://www.slideshare.net/wsdot.

Value added from social media

Some social media, like Facebook and blogs, are “primary” social media outlets, while others are “secondary.” Secondary social media outlets are basically growth tools for primary outlets. Secondary social media outlets are typically used to promote and engage with websites that already have a primary social media presence. Examples of secondary social media outlets include Twitter and Pinterest. Twitter is ideal for real-time updates and quick responses to comments, questions, and suggestions. Pinterest is perfect for sharing images and videos with others. But why use secondary social media outlets? To attract users from other social media outlets.

Continued on next page
Social media Continued from page 5

vehicles that can “drive the others,” said KDOT’s Qualls. For example, from a Facebook page, a user could connect to videos posted on YouTube, pictures on Flickr, PowerPoints on SlideShare, or micro-blogs on Twitter. Primary vehicles create the ability to use different types of social media together to reinforce a particular message.

Conclusion

Although “good old days” of radio and television are still here, public outreach can be improved by using social media to provide real-time information—and also more options for learning about a topic. Public works departments have an opportunity to communicate more with the public and in ways not available before social media. Like Overland Park, you can use social media to go beyond communicating alerts to informing the public about the great work you do, in some unique and creative ways.

To see an example of a Facebook page that integrates different social media platforms, visit the KDOT Northeast Kansas Facebook page at the link in the sidebar on this page. See also the links from some local public works agencies in Kansas that are using social media, many of which were mentioned in this article.

“Recalculating...”

By Nora Fairchild

How to tell GPS companies about changes to routes through your community.

Let’s say you have a road construction project planned or a bridge out and you would like to notify GPS companies to route their customers around those obstacles. How do you do that?

Companies like Garmin, TomTom, Magellan and MapQuest provide electronic navigable maps for consumers. Most of these companies use a GIS database from NavTeq, owned by Nokia, to create and update their maps. NavTeq sends updated maps on a quarterly basis to the GPS navigation system providers, who in turn do field studies and incorporate customer feedback to edit and finish their own maps.

If you need to report a route change, note that it may take three months or more for changes that are reported to be put in effect. So, for short-term changes like a road surfacing project, drivers will just have to follow your detours. For larger projects, however, or to report an out-of-commission bridge that may take months to repair, you could report your detour route and save drivers some headaches.

There is no single clearinghouse for reporting route changes,
but NavTeq is a good place to start, since its database is used by so many mapping services.

Roy Kolstad, NavTeq's Vice President, Enterprise Sales, Americas, notes that NavTeq is already connected with the communities it maps.

“Because we have people locally on the ground, we have direct relationships with city officials, DOTs etc., from whom we get advanced information on new developments, planned construction projects and the like.” The company also checks other sources such as chambers of commerce and carries out data collection and verification using local experts if the data cannot be sourced or is not up to company standards. Kolstad said NavTeq has over 1100 geographic analysts around the world who drive the roads to collect data.

So it would seem that NavTeq has mapmaking covered. However, NavTeq's GPS customers, such as Garmin and MapQuest, determine how many map updates they will receive and which ones they wish to implement. Kolstad says that, “because of the combination of our publication cycle and the control which our customers have over when they make updated data available, something like a short term closure of a road may not appear.”

So it's best to communicate a change to both NavTeq and individual GPS companies. Here's how:

How to suggest changes to routes

GPS customers use a variety of mapping service companies, and you will need to contact them separately to report a change in a route. Start with NavTeq and go from there.

1) Contact NavTeq. Local officials can provide route changes online at http://www.mapreporter.com.

2) Contact Garmin. Garmin does field work after receiving maps from NavTeq. When it comes to simple changes at a single location, Garmin can be reached through an online form at https://my.garmin.com/mapErrors/report.faces. To report more complicated route changes, write to cartographyemail@garmin.com. Garmin's cartography administrator, Loy Clinkenbeard, explained that the form makes it easier for Garmin to process, but a more complicated change may require a conversation with one of their cartographers to work out the details.

3) Contact Google Maps. If you pull up a Google Maps “Get Directions” route and see that it is incorrect, click “Report a Problem” at the bottom of the toolbar, and fill out a form that gives you the option of receiving an email alert when the problem is resolved. You may also access this feature by right clicking anywhere on a Google Map and selecting “Report a Problem.” If you have a Google account, you can also edit information directly on the site by looking up a specific place, clicking the “Edit” link and move its marker or edit its details. These changes appear right away.

4) Contact Yahoo Maps. You must have a Yahoo, Google or Facebook account to provide feedback to Yahoo Maps, but the company promises a response within 24 hours. Simply visit http://help.yahoo.com/l/us/yahoo/maps/general.html and fill out the form.

5) Contact MapQuest. MapQuest has a link to feedback forms on their help page: http://www.mapquesthelp.com/

6) Contact other services you may hear about. Most navigational systems companies have online feedback forms that anyone can fill out to report route problems and changes—simply do an online search for the company whose product is giving incomplete or faulty data, and fill out a form to let them know.

Take the time to give feedback

Providing feedback to navigational systems companies can seem like a chore, and it takes a while to see results. Sometimes, the mapping companies request very specific information on the location, including even GPS coordinates. Despite the hassle, GPS companies do take customer feedback to heart and have field operators that help develop better routes.

Garmin is not yet at the point that it can provide real-time directions in the way a human can, but responding to feedback is one of the ways it can get closer to that point. Clinkenbeard said: “If there is something wacky about a route, we definitely want to hear about it. We are here, after all, to try to make the very best product we can.”

Sources:
- Navteq website: http://corporate.navteq.com/company.htm
- Garmin website: http://www8.garmin.com/aboutGarmin/

When possible, plan ahead. It can take up to three months for a reported change to take effect.
Up and Running: Update on KDOT’s Federal Fund Exchange

By Lisa Harris

In 2010, KDOT’s Bureau of Local Projects initiated an innovative funding program—called the Federal Fund Exchange—to help local agencies get the most out of their federal dollars. How is it going? By all accounts, very well. This article will describe some of the projects being funded under the new program and how they compare with what is normally allowed and required under federal aid.

With the Federal Funds Exchange (FFE), a local public authority (LPA) exchanges its federal funds with KDOT for state funds, on a reimbursement basis. The state reimburses up to 90 percent of the local government’s federal aid allocation for local projects, as costs are incurred. Exchanged funds can be used for construction or maintenance projects anywhere they are needed, including on roads not eligible for federal aid. The projects are under local control, with minimal state oversight. Work can be done by contractors or the LPAs own employees. Once a local agency submits expenses for reimbursement, it takes about two weeks to complete the process, said Ron Seitz, Chief of KDOT’s Bureau of Local Projects.

The numbers

To date, over the 2.5 years the program has been operating, KDOT has committed over $60 million in exchanged dollars across the state to be used on local projects by eligible local governments. (See sidebar on this page.)

All of the counties in Kansas are, or will be, eligible for the program, but some have borrowed ahead on their federal funds and will be eligible when their annual allocations exceed the amount they have borrowed. (See map on next page.)

What projects are using FFE funds?

Here are a few examples of the types of projects local agencies are funding with their exchanged dollars.

Projects that are not eligible for federal aid.

- Gravel road resurfacing. Elk County used their exchanged funds to construct an aggregate road surface using county forces.
- Chip sealing. Some counties, including Geary, Republic and Chase, did chip seals. These are “maintenance-type” improvements and are not eligible for federal aid. Chase County did also did some patching with FFE funds.
- Slurry sealing. The City of Concordia laid a slurry seal on several residential streets. This is also maintenance-type work. Work on residential streets is not eligible for federal aid.
- Asphalt overlays. The City of Paola did an overlay on a residential street not eligible for federal aid.
- Small bridge replacement. Jewell County constructed a steel girder-type bridge using county forces. Several features of this type of bridge are not typically allowed on a federal-aid project.

Projects that ARE eligible for federal aid, but exchanged funds were used instead.

- Asphalt overlay on a federal-aid route. Doniphan County used FFE funds for their overlay project and had greater control over the schedule and how the project was constructed.
- Bridge replacement. Saline County used FFE funds for what had been a federal-aid project. As a result, the project let to contract sooner, and the county had greater control over every aspect of the project.
Projects that need a funding boost.

- Complex intersection. The City of Chanute rebuilt an intersection as a focal point in their downtown that included special paving materials, signals and lighting. The city had greater control over the schedule and how project was constructed. The city combined FFE funds with other funding sources to construct a much larger project with special features that would not have been eligible for federal aid.
- Arterial street reconstruction. The City of Newton used FFE funds to supplement local funding on a major project.

Advantages of the Federal Fund Exchange

From the perspective of cities and counties. Most LPAs in Kansas have been very positive about the program. It allows them much more flexibility in using funds, and more maintenance work can be done with the funds available. The only downside is for those LPAs that have borrowed ahead on their federal funds. They can’t have those funds exchanged retroactively, and they will not be eligible for the FFE program until their annual federal fund allocations exceed the amount they have borrowed.

From KDOT’s perspective. The exchange program has been a boon for KDOT’s Bureau of Local Projects. Local agencies are now better able to meet their highest local needs, and there is much less overall oversight required by KDOT. However, KDOT does require documentation that funds are being spent as intended, to document fiduciary responsibility with state funds.

From FHWA’s perspective. The FFE program also results in less local-level oversight and paperwork for FHWA. Mike Bowen, FHWA’s Kansas Division Administrator, said the program complements FHWA’s focus on pavement preservation and provides significant benefits for local agencies. “I put myself in their shoes,” Bowen said, “and see huge advantages in terms of flexibility, cost, and speed in getting projects done. The projects don’t need to follow federal-aid rules for environmental clearance, wages, and purchasing, and they don’t need to be done by contractors. With locals managing their own FFE projects, FHWA can then focus on higher-level projects that should have more oversight.”

Conclusion

As you can see, this program is a win-win for the state of Kansas and (especially) for local agencies in Kansas. Many cities and counties are taking advantage of it. It provides a great deal of flexibility for how communities use federal dollars on their roads and streets. For more information, contact Ron Seitz, Bureau Chief, KDOT Bureau of Local Projects, at (785) 296-3861 or Seitz@ksdot.org.
Pete came in to work today shaking his head because he heard yet another gun-control advocate talking on the radio. He said he is going to go out and buy more guns before the government cracks down on gun sales. Something to worry about? Hard to say, but maybe not. However, if Pete goes on to rant that his co-worker, Leroy, “has it coming to him” because Leroy favors gun control, that’s another story. Pete has a problem behavior—making veiled threats—and that needs to be discussed with him and stopped. It might be just an idle threat, but it could be the first sign of an incident of workplace violence.

The National Crime Victimization Survey (NCVS) reported that two million annual assaults and threats of violence occur in the American workplace yearly. Anyone can be victim to workplace assault, according to the National Institute for Occupational Safety and Health (NIOSH), but some industries and occupations have a higher risk than others. Law enforcement officers and taxi drivers are high on the list. Retail sales, according to the NCVS study, had the most victims with 330,000 attacks each year. However, your profession is not immune. In 2008, highway, street and bridge construction workers experienced 131 assaults and violent acts nationwide.

One workplace characteristic that can create the stage for workplace violence, according to Larry Porte, a law enforcement expert, is having “a setting that facilitates or permits the violence; a setting in which there is a lack of intervention.” The responsibility falls to supervisors, managers, coworkers, and human resources professionals to know signs of potential workplace violence. Porte said most coworkers, following an incident, realize that they saw signs and changes in their coworker’s behavior before the incident and failed to take action.

### Eight Predictors of Workplace Violence

Although sometimes easy to miss and not always reliable or predictive, these signs could help you see the potential for violence before it happens.

- **Actor Behaviors:** The employee acts out his anger with such actions as yelling, shouting, slamming doors, and so on.

- **Fragmentor Behaviors:** The employee takes no responsibility for her actions and sees no connection between her behavior and the consequences or results. As an example, she blames others for her mistakes.

- **Me-First Behaviors:** The employee does what he wants, regardless of the negative effects on others. As an example, the employee takes a break during a last minute rush to get a project done, while all the other employees are working hard.

- **Mixed-Message Behaviors:** The employee talks positively but behaves negatively. As an example, she acts in a passive-aggressive manner saying she is a team player, but refuses to share information.

- **Wooden-Stick Behaviors:** The employee is rigid, inflexible, and controlling. He won’t try new technology, wants to be in charge, or purposefully withholds information.

- **Escape-Artist Behaviors:** The employee deals with stress by lying and/or taking part in addictive behaviors such as drugs or gambling.

- **Shocker Behaviors:** The employee suddenly acts in ways that are out of character and/or inherently extreme. For instance, a usually reliable individual fails to show up for work without notice or calling in sick. She or he may exhibit a new attendance pattern.

- **Strange Behaviors:** The employee is remote, has poor social skills, and becomes fixated on an idea and/or an individual.

Adapted from: Dr. Lynne McClure. [http://www.mctectureassociates.com/info/key.html](http://www.mctectureassociates.com/info/key.html)

### What to look for

Porte said that violent acts usually have one of the following motives:

- Achieve notoriety or fame
- Bring attention to a personal problem
- Avenge a perceived wrong
- End personal pain
What to do

Dr. Lynne McClure, a nationally-recognized expert in managing high-risk employee behaviors, has identified eight behaviors that could be predictive of workplace violence (see sidebar at left). McClure offers this advice to managers: “When the manager, supervisor, or HR person sees these behavior patterns, [he or] she must:

• document them,
• talk to the employee, discuss the behaviors in terms of their negative effect on work, and
• require training, counseling, or both.
• continue to monitor the employee's behavior.

The goal is to either get the employee to change his/her behavior via skills-acquisition and/or dealing with problems, or to leave the workplace by choice or company decision.

Workplace violence can happen anywhere, so take note of any predictors and consider these three important steps suggested in the article “Workplace Violence: Violence Can Happen Here:”

1) Know your employees; know when employee behavior is out of the ordinary.
2) Train supervisors and other coworkers that reporting unusual behavior to Human Resources is expected and encouraged.
3) Stop the spiral that can result in violence; give the potentially violent person somewhere to turn for help.

An excellent resource for more in-depth information on this topic is Dealing with Workplace Violence: A Guide for Agency Planners, published by the US Office of Personnel Management. The guidebook contains 16 case studies of different kinds of troubling employee behavior and how to approach those situations. It also includes sample policies that address workplace violence. Not all the information in the guide will be relevant to your agency, but it gives much food for thought and provides good, practical guidance.

The goal is to get the employee to change his/her behavior via skills-acquisition and/or dealing with problems, or to leave the workplace by choice or choice of the employer.


Conclusion

In the scenario described in the beginning of this article, Pete might be accustomed to “mouthing off” around his family and friends and he may be harmless. But he should still be made aware of what is (and is not) acceptable in the workplace—in the interest of professionalism and the safety of all your employees. And if his behavior persists, something else might be going on with Pete that should spark concern and further action.

Safety Edge Follow-Up

By Lisa Harris

FHWA has identified a safety shoe that can work on narrower pavement widths.

Chris Wagner, a member of the national FHWA team responsible for deploying the Safety Edge technology, read our article on the Safety Edge in our last issue. He noticed that several agencies had difficulty with narrow width paving operations using the LTAP loaner shoe. Wagner told us that the unit on load “does take up about 15 inches inside of the auger box and does limit the ability to draw the end gates in fully for narrow paving.” Wagner said there is another safety edge unit that does not have this restriction available from another manufacturer.

Four manufacturers of safety edge shoes are listed at http://safety.fhwa.dot.gov/roadway_dept/pavement/safeedge/faqs/#construction. Check out their capabilities.

Some other factors to consider in choosing a safety shoe are its weight, price, ability to use with your equipment, and the ability to adjust the slope. When buying a shoe, be sure your specs address your particular paving needs.
A Leg Up

Getting from Here to There with Complete Streets

By Kirk Raymond and Lisa Harris

We have published a few articles on “Complete Streets,” a design approach that accommodates all users of a roadway, including pedestrians, bicyclists and transit riders. Complete Streets start with a vision, and that paves the way for the next steps: policy adoption, design guidelines and eventual street construction or retrofit. This article will describe experiences of two Kansas communities taking those next steps. We’ll also provide recommendations from a national resource on Complete Streets for successful implementation of a Complete Streets policy.

Lawrence and Hutchinson

Todd Girdler, senior transportation planner for the Lawrence-Douglas County MPO, is seeing some challenges to implementation in his area. He said “It’s easy to develop a Complete Street from a green field, but in a place like Lawrence with older streets, the projects must be retrofitted” he said.

An example of a such a challenge in Lawrence has been creating a continuous bicycle lane on 9th street. This street connects the downtown shopping district with 59 Highway (Iowa Street) and runs alongside the University of Kansas. It receives a significant amount of bicycle, transit and pedestrian traffic. A bicycle lane is being added in segments as the city completes maintenance projects on the street.

City staff recommended adding a center turn lane on a segment of 9th Street close to downtown to ease traffic congestion. In the same area there is a gap in the bike lane, a pedestrian bulb-out, and on-street parking spaces. The city had to decide which street facilities are most important in that area. Purchasing extra right-of-way to widen the road was not a feasible option, due to the cost. Girdler said Lawrence’s Complete Streets policy has a clause prohibiting projects that require “spending an exorbitant amount of money.”

A local business owner with on-street parking in that area asked elected officials to not create the bike lanes because his business would lose parking spaces near his front door. City officials were able to work out a compromise, moving the parking into the city’s right-of-way, in a pull-out. The property owner donated a permanent pedestrian easement for the sidewalk which was relocated to accommodate the recessed parking. This was a good example of creative thinking that resulted in a “win” for everyone. Challenges will continue to be part of the implementation process for Complete Streets in Lawrence, but this example shows that some challenges can be overcome.

Hutchinson, Kansas, adopted a Complete Street policy in 2011 modeled after the Lawrence policy. “We liked the simplicity, it was easy to understand, and [it] did not set out specific engineering details,” said Casey Jones, city planner. Jones said that Hutchinson’s city council was not comfortable with a stringent policy and wanted the ability to overturn projects. Council members passed a resolution that stated that the Council has final ruling and authority to approve future projects.

Hutchinson is not as far along as Lawrence in their Complete Streets process. A plan for creating an ordinance

Here are some recommendations from the National Complete Streets Coalition for going from policy to construction of a Complete Street:

1. Restructure or revise relevant procedures, plans, regulations and other processes to accommodate all users on every project.

2. Develop new design policies and guides (or revise existing) to reflect the current state of best practices in transportation design.

3. Offer workshops and other training opportunities to transportation staff, community leaders and the general public so that everyone understands the importance of the Complete Streets vision.

4. Develop and institute better ways to measure performance and collect data on how well streets are serving all users.

Source: Complete Streets Policy Analysis 2011.
Learn From these Award-Winners

Each year the National Complete Streets Coalition releases a policy analysis and a companion local policy workbook highlighting the top Complete Street policies in the United States. They have four categories of awards: 1) Vision, 2) Core Commitment, and the two award categories listed below. To read more, visit http://www.completestreets.org.

- **Award for Best Practices**
  
  New Hope, Minnesota’s Complete Streets Policy (2011) received a best practices policy award for creating performance measures. The award stated that:

  “Like any project involving the use of taxpayer dollars, Complete Streets should be continuously evaluated for success and opportunities for improvement. This policy encourages the regular gauging and reporting of implementing Complete Streets through the following performance measures:”

  - User data (bike, pedestrian, transit and vehicular traffic)
  - Use of new projects by mode
  - Linear feet of pedestrian accommodations built
  - Miles of bike lanes/trails built or striped
  - Number of street trees planted
  - Crash data
  - Compliments and complaints
  - Number of ADA accommodations built
  - Number of transit accessibility accommodations built
  - Number of exemptions from this policy approved

  New Hope’s policy: http://www.ci.new-hope.mn.us/departments/communitydevelopment/planning/complete_streets.shtml

- **Award for Next Steps**
  
  Baldwin Park, California’s Resolution No. 2011-028 (adopted in 2011) established a list of next steps for Complete Streets and specific objectives within each step. An example is their statement on establishing their advisory group:

  “(A) Advisory Group. The City will establish an inter-departmental advisory committee to oversee the implementation of this policy. The committee will include members of Public Works, Community Development, Recreation and Community Services, and the Police Department from the City of Baldwin Park. The committee may include representatives from the Los Angeles County Metropolitan Transportation Authority, representatives from the bicycling, disabled, youth and elderly communities and other advocacy organizations, as relevant. This committee will meet quarterly and provide a written report to the City Council evaluating the City’s progress and advise on implementation.


Sources:
- Interviews: Todd Girdler on November 30, 2012; Casey Jones on November 13, 2012.

Conclusion

The Complete Street process is not one-size-fits-all. Like any effective planning process, it starts with a vision that the community can support through implementation. Policy and regulations need enough teeth to succeed in an imperfect world with competing priorities, and in a political climate. See the sidebar on page 12 for advice on going from policy to construction.

The process of building or retrofitting Complete Streets should include a variety of stakeholders invested in pedestrian, bicycle, transit, and vehicular mobility. And development tools for implementation should be flexible enough for some fine-tuning along the way.

For more information, visit the National Complete Streets Coalition at http://www.completestreets.org.
MORE

By Lisa Harris

See download/ordering information on next page.

Best Practices: Culvert Replacement

A best-practice tutorial on how to replace a culvert, including safety precautions to follow while on the job. Ohio DOT, 2011. DVD. 18 minutes.

Rural Connections: Challenges and Opportunities in America’s Heartland

A report on the condition of roads and bridges owned by local governments in the Heartland and the challenges in funding maintenance and improvements. Published by TRIP, a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. 37 pages. September 2011.

Roadway Departure Safety Implementation Plans: Kentucky Implements Roadway Departure Safety Plan with Rumble Stripes and Friction Treatments

A case study from Kentucky of a statewide roadway departure safety plan emphasizing two strategies: rumble strips / stripes and friction treatments. Two pages. March 2011.

CALANDAR

For information on calendar items or to suggest a topic for an LTAP workshop, contact: Kristin Kelly, LTAP Training Coordinator, 785/864-2594, kbkelly@ku.edu.

▲ L1 = KS Road Scholar Program Level 1 — Technical skills required course.
▲ L2 = KS Road Scholar Program Level 2 — Supervisory skills courses are provided by the Kansas Association of Counties. Go to http://www.kansascounties.org and click on "Education Program."
▲ L3-r = KS Road Scholar Program Level 3 — Master Road Scholar required course.
▲ L3-e = KS Road Scholar Program Level 3 — Master Road Scholar elective course.

Training:

2013....

Effective Community & Media Communication – L3
June 4 in Salina
June 11 in Abilene
June 13 in Burlington

The Supervisor’s Role in Managing Employee Performance – L2

Overview of Human Resource Management – L3
July 11 in Junction City

Traffic Incident Management Training: Helping to Get Your Partners Trained
EDC Exchange Webinar
June 19 (1:00 pm – 3:00 pm)
Location participation in Topeka and Wichita

Coaching & Positive Discipline for Effective Supervision – L2
July 16 in Manhattan
July 25 in Hutchinson

Overview of Human Resource Management – L3
July 11 in Junction City

Traffic Incident Management Training: Helping to Get Your Partners Trained
EDC Exchange Webinar
June 19 (1:00 pm – 3:00 pm)
Location participation in Topeka and Wichita

Coaching & Positive Discipline for Effective Supervision – L2
July 16 in Manhattan
July 25 in Hutchinson

Become a Kansas Road Scholar!
http://www.ksroadscholar.org
Learn • Grow • Excel

Advanced ArcGIS
August 14-15, 2013 in Lawrence

Fundamentals of Supervision – L2
August 21 in El Dorado
August 27 in Topeka

Basics in Budgeting, Finance & Reporting – L3
September 10 in Wichita

HSMLite
September 10 in Hays

Asset Management and Cost Accounting – L3-r
September 19 in Salina

Road Safety Assessment – L3-e
September 24 in Dodge City

Upcoming Meetings:

APWA National Congress
August 25-28
Chicago, IL
http://www.apwa.net

APWA-KS Roundtable
September 12 in Salina
http://kansas.apwa.net/

MINK Local Roads Meeting
September 25-26, 2013 in St. Joseph, MO
Contact Lisa Harris at (785) 864-2590 or LHarris@ku.edu

For information on calendar items or to suggest a topic for an LTAP workshop, contact: Kristin Kelly, LTAP Training Coordinator, 785/864-2594, kbkelly@ku.edu.

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▲ L3-r = KS Road Scholar Program Level 3 — Master Road Scholar required course.
▲ L3-e = KS Road Scholar Program Level 3 — Master Road Scholar elective course.

COMING in JUNE: Traffic Incident Management Webinar

Only a small number of public safety and transportation responders have been trained in sound response operations after a traffic incident or crash. Tier I training includes on-scene activities including detection/verification, response, site management, clearance/removal, and traffic management with a focus on responder safety. Responders from disciplines, including Law Enforcement, Emergency Medical Services (EMS), Fire and Rescue, Departments of Transportation, Towing and Recovery providers, and Notification and Dispatch, are encouraged to attend this Exchange. See above for more information.
**FREE ROAD & BRIDGE RESOURCES**

Check off your selections, fill in the bottom portion, and return this form to:
Kansas LTAP Materials Request, 1536 W. 15th St., M2SEC Building, Room G520, Lawrence, Kansas 66045 or fax to 785/864-3199

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**TRAINING GUIDES & REPORTS**

You are free to keep these unless otherwise noted.
Or you can download at the links provided.

**Best Practices: Culvert Replacement**
☑ request DVD to keep.

**Rural Connections: Challenges and Opportunities in America’s Heartland**

**Roadway Departure Safety Implementation Plans: Kentucky Implements Roadway Departure Safety Plan with Rumble Stripes and Friction Treatments**

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**EQUIPMENT LOANS**

We offer the following items for loan to local highway agencies.
Contact mgivechi@ku.edu for counter boards and weaver@ku.edu for the Safety Edge shoe. There could be a waiting list for these items.

**Safety Edge Paving Shoe.** This Advant-Edge shoe attaches to a paver with a universal bracket, provided with the shoe.

**Turning Movement Counter Board DB-400, Jamar Technologies, Inc.** A basic model for recording turning movements at intersections. The board is lightweight and comes with its own case.

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

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**REQUEST FORM**

☐ send materials indicated          ☐ address correction          ☐ add to LTAP Newsletter mail list          ☐ send Road Scholar Program brochure
☐ add to KS LTAP email discussion list

Name__________________________________________  Phone number ______________________

Position________________________________________  E-mail address ______________________

Agency___________________________________________________________________________

Street Address____________________________________________________________________

City________________________  State_____________________  Zip + 4____________________

*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.

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Our library of free reports and training videos is searchable online. Visit http://www.ksltap.org. Click on the “Lending Library” to search the catalog and place your order.
Let us help you find the answers to your transportation-related questions.


The Kansas Local Technical Assistance Program (LTAP) is an educational, technology transfer and service program of the Kansas University Transportation Center (KUTC), under the umbrella of the KU Transportation Research Institute. Its purpose is to provide information to local government highway departments and their personnel and contractors by translating into understandable terms the latest technologies in the areas of roads, highways and bridges.

The Kansas LTAP Newsletter is published quarterly and is free to counties, cities, townships, tribal governments, road districts and others with transportation responsibilities. Editorial decisions are made by Kansas LTAP. Engineering practices and procedures set forth in this newsletter shall be implemented by or under the supervision of a licenced professional engineer in accordance with Kansas state statutes dealing with the technical professions.

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