Crossroads

The Quarterly Journal of the County Road Association of Michigan

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From the Mine to the Road

The story behind road salt





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Crossroads

Crossroads is the quarterly publication of the County Road Association (CRA) of Michigan. The 83 county members of CRA represent the unified, credible and effective voice for a safe and efficient local road system in Michigan.

The Association, headquartered three blocks north of the State Capitol, is dedicated to helping members promote and maintain a safe, efficient county road system including stewardship of the county road right-of-way in rural and urban Michigan.

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Next Publication

The Winter 2017 issue of *Crossroads* will feature stories highlighting the best work of the 2017 summer construction season.

From new processes and materials, to revamped equipment and innovative new technologies, county road agencies are constantly finding ways to improve local roads and bridges.

Crossroads' editorial team wants to hear from you. Call CRA at 517.482.1189 and share your ideas for future issues!

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PRESIDENT'S CORNER



During the construction season, unavoidable traffic delays and detours exacerbate motorist anxiety. In response, we have all heard the jokes or angry rants made at our workers' expense. Although frustrations generated by such inconveniences are understandable, it is important to acknowledge, and commend, our employees' commitment to creating long-term benefits for the communities we serve.

In fact, "service" is the foundation of being a "public servant," and for us, this translates to providing safe and reliable roads and bridges. Without these networks, mobility would be compromised and travel would become more difficult.

Consequently, whether completing routine maintenance, storm response, construction or rehabilitation, at the end of the day, our efforts make a positive difference in people's lives.

Our organizations are not driven by profits but by service, and it is important that our employees understand the value of their contributions. Admittedly, the work of a road commission employee is not always glamorous and various conditions may even place some in potentially dangerous situations.

Yet, day after day, our workers complete their assignments with little fanfare. Therefore, it is important to remind them that the work we accomplish is something for which we all should be very proud.

I truly believe that public service is an honor because it is a privilege to know that our daily efforts directly impact the safety and well-being of our own communities.

While our collective achievements are important, nothing is more valuable than each employee's safe return home at the end of the work day. Please be mindful when in and around a work zone, and please be safe out there.

Steven A. Warren
CRA President
Managing Director

Kent County Road Commission



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Barry County Road Commission: "Watch Out for Curves!"

This advice is very clear to a vehicle driver. But it's also a core belief for internal operations of the **Barry County Road Commission (BCRC)**, according to managing director **Brad Lamberg**, PE.

"We put up curve signs, chevrons and speed panels like everyone else to keep our drivers safe," Lamberg said. "We also make it a priority to safeguard our internal operations. And identifying these curves, or trends, is just the beginning."

"A key emphasis to making the Barry County Road Commission run well, is watching out for the 'curveballs' and implementing any required changes at the right time. That's especially true when it comes to contract negotiations, social media, the concept of road departments and shifting political climates," Lamberg said. "We want to stay ahead of the curve"

A visit with BCRC and managing director Lamberg finds a strong emphasis on future planning and good business practices.

Health care costs and the road agency

In the late 1990s, Lamberg said BCRC took advantage of a unique "soft spot" in the health care market and implemented defined contribution to replace defined benefit. This saved the road commission well over \$1.5 million over the next decade.

"We did a lot of educating with our employees who didn't know much about defined contribution," Lamberg said. "Then we let them choose whatever health care plan they wanted and keep any savings in the premium."

The move allowed the Barry CRC to keep its health care contribution flat for seven straight years, from 2002 to 2008, Lamberg said. At the same time, employees' health care accounts were also growing: A win-win.

Those "soft points" in the health care market no longer exist, Lamberg noted.

Then in 2002, as the funding shortage was truly being felt by county road



BCRC employees.

agencies, BCRC saw retiree health care (Other Post-Employment Benefits or OPEB), trending out of control. Lamberg and BCRC commissioners saw that funding its OPEB would take more and more operational funds away from roads.

"Again, after providing a great deal of explanation to our staff, we made the decision to fix the road commission's contribution rate for current retirees and phase out health care for future retirees," Lamberg said. "Tradeoffs were made in contract negotiations but today the road commission's OPEB is 100 percent funded and the total health care liability is \$1.1 million and dropping."

"Every road commission is in a different place fiscally and with its staff, and the opportunities for a win-win aren't always present," he added.

Addressing the pension fund

BCRC has had a 401k since the mid-1980s, which has kept it in the defined contribution camp with no unfunded pension liability. Currently, governmental entities are not allowed to participate in 401k plans, but for a short time in the early to mid-1980s they could. The **Kent County Road Commission** also chose that route.

"In hindsight, Barry County was fortunate to take advantage of a unique opportunity in the financial market that put us into defined contribution years ahead of the curve," Lamberg said.



Road work taking place in Barry County.

Out on the Barry County roads

While providential decisions have improved BCRC's financial situation, road funding is still very tight. BCRC will have \$5.5 million in needed road repairs go unfunded this year.

One of the preservation challenges BCRC addressed was "wedging," which has been used in Barry County for decades.

"Wedging" strengthens the outer half of lanes by adding thin layers of asphalt, and "feathering" this layer into the crowned part of each lane, which is usually in better shape than the edges.

Wedging economizes by stretching material over more miles, extending the life of a road without milling it back and applying a new surface on the edges where it was most needed.

Unfortunately, where the asphalt wedge was most thin near its center edge, BCRC was seeing the asphalt peeling off. BCRC has overlaid new chip-seal surfaces on these roads, with unexpectedly superior performance.

Back in the garage

BCRC utilizes three full-time mechanics of 18 trucks and 65 other pieces of equipment. This has proven more economical than "jobbing out" some expensive repairs such as engine and transmission rebuilds, Lamberg said.

For efficiency purposes, every plow truck was retrofitted with a wing plow years ago to allow the maximum amount of road surface to be plowed in each pass.

The final proof is in the polling, according to Lamberg.

In 2014, BCRC hired a third party to evaluate Barry County residents' opinions about its service and relationship with the community. "Barry County voters' perceptions that county roads are in good shape has led to a 79 percent positive job rating, a rate rarely obtained by tax-funded agencies," said Ed Sarpolus, owner of Target Insyght, the polling firm.

"Having fantastic employees who are willing to consider new solutions and to "work with" the road commission during past lean financial times has been the key to making us a highly effective agency," Lamberg said.

"Getting ahead of the curve – we've done that," he said. "Now staying ahead of the curve is our challenge for the future!"

JUST THE Facts:

Office Headquarters:

Hastings

Staff:

32 full time; 23 seasonal

No. of Commissioners:

.

3 (appointed)

Miles of Road:

Total paved: 1,067 Primary: 345 Local: 722

Total unpaved: 474 Primary: 8 Local: 466

MDOT Contract:

140

No. of Bridges:

3

Annual Budget:

\$14.2 million (FY 2017)

Local Revenue:

\$1.4 million

Annual Snowfall:

70 inches

BCRC established:

April 1916

No. of Garages:

Office Built:

1962

1

FUN FACT: In the 1950s, the BCRC purchased 100 acres for \$1,000. The current BCRC office is located on this land. The spot is just west of Hastings and is currently being sought after by prime developers. If and when the price is right, BCRC might consider relocation.

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Living in a winter wonderland would be a lot more fun if slippery roads weren't part of the package! Keeping over 100,000 miles of roads un-slippery and safe for public travel is the main focus for county road agencies every winter.

Road salt is a big part of the winter maintenance equation. So *Crossroads* set out to "mine" some information about road salt.

By the numbers

According to the Salt Institute trade association, "the US and China dominate in world salt production, combining for 40 percent of the world's quarter billion tons of salt produced each year."

In 2017 the US Geological Survey reported US produced salt is used as rock salt (44 percent) and brine (38 percent), among other uses.

Michigan uses 1.1 million tons of salt on roads annually.

Which salt is which?

There are three main types of road salt in the US, according to the Salt Institute.

Brine is typically a salt-water solution
— that is sodium chloride with water.
However, both magnesium chloride and calcium chloride are also used as liquids.

The three common salt forms are:

Road Salt \rightarrow Sodium Chloride (NaCl₂)

Brine Sodium Chloride (NaCl₂) or Magnesium Chloride (MgCl₂) or Calcium Chloride (CaCl₂)

Anti-icing or pre-wetting agents

Sodium Chloride (NaCl₂) or
Magnesium Chloride (MgCl₂) or
Calcium Chloride (CaCl₂)

"Of the three brine types (sodium chloride, calcium chloride, magnesium chloride) sodium chloride is the most commonly used, primarily because agencies can make sodium chloride brine by mixing rock salt and water in a brine maker," according to Wilf Nixon, PhD, PE, vice president of Science and the Environment at the Salt Institute. "Typically, the other two brines are purchased in brine form."

This salt is not made for cooking

Road salt is rock salt. It's made of the same molecule as table salt: Sodium chloride. The similarities end there. Rock salt grains are coarser than the grains in table salt. In addition, table salt is purified and has additives such as iodine.

Getting salty in Detroit

Road salt is produced one of three ways: Deep shaft mining, solution mining or solar evaporation. The US has about 50 salt production sites.

In Michigan, the only salt mine is the Detroit Salt Company (DSC), a deep shaft rock mine under the city of Detroit.

DSC excavates salt six days a week, continuously grinding walls of salt. After the salt is broken off, it's crushed and screened to customer specifications. It is then loaded on a conveyor belt and hoisted to the surface.

Next, DSC ships salt products via truck or train. If the salt is not being shipped right away, it is stored in a shed or covered with a tarp.

Getting a deal with MiDeal

MiDEAL is an extended purchasing program that allows local government to use state contracts to buy road salt. Members pay an annual membership fee for the program, managed by the Michigan Department of Technology, Management and Budget (DTMB).

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"We have to put in our order for salt by mid-April through the MiDeal contract," said **Don Chubb**, fleet manager for the **lonia County Road Commission** (ICRC). "We have to take at least 70 percent of what we order no matter how winter turns out. We can take an additional 30 percent in excess if needed."

The 2017 MiDeal suppliers are Cargill Inc., Compass Minerals America, Inc., Detroit Salt Company and Morton Salt Company.

A drawback to MiDeal is that a road agency doesn't know how much salt costs per ton until long after the purchase

is made and the product is about to be delivered. That makes budgeting a challenge.

Going it on your own

Ordering salt directly rather than through a third party gives a road agency more control over delivery time and the price. **Kent County Road Commission** (KCRC) likes having that control.



KCRC requests bids for salt each May. Every city, village and township in Kent County as well as Montcalm County Road Commission (MCRC) makes road salt purchases through KCRC.

"We control our own destiny when the bid is with us. We're not tied to MiDeal where if something goes wrong and we can't get the product there's nothing we can do about it," said **Gerald Byrne**, deputy managing director of operations for the Kent County Road Commission.

Lexicon of Road Salt

Early Fill:

Amount of road salt bought and delivered in Fall.

Late Fill:

Road salt purchased or delivered in winter.

Award Winners SPOTLIGHT

And the Carmine Palombo Individual TAMC award goes to...

Tim O'Rourke, manager, Roscommon County Road Commission (RCRC)!

The Transportation Asset Management Council (TAMC) has presented the 2017 Carmine Palombo Individual Award to O'Rourke for his commitment to strong asset management principles, and his leadership and vision in supporting asset management.



Tim O'Rourke

O'Rourke has provided educational workshops for local government officials and started Roscommon's county-wide Asset Management Advisory Board. Three-quarters of RCRC's staff has been trained on Pavement Surface Evaluation and Rating (PASER) and asset management.

Dr. Daly, Newest Fulbright Specialist!

Genesee County Road Commission (GCRC) managerdirector John H. Daly III, PhD, has been awarded a Fulbright Specialist Program grant to study asset management in Canada for four to six weeks.

Daly applied for the Fulbright Master of Public Affairs Program to work on infrastructure asset management within the academic area of engineering education at the University of Waterloo in Canada.



John H. Daly III

"The products I'm producing during the trip are a preliminary strategic analysis of strategy and course development for asset management in Ontario," Daly said. "The benefit I see for local road agencies is that it gives us another look at how a similar organization performing a similar function has approached implementation of asset management."

Along with his position at GCRC, Daly serves on CRA's Board of Directors and is a past CRA president.

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STATE REPRESENTATIVE JOHN CHIRKUN

Rep. John Chirkun (D – Roseville) represents Michigan's 22nd District, including Roseville and part of Warren in Macomb County, and serves as vice chair of the House Transportation and Infrastructure Committee.

CRA's deputy director **Ed Noyola** caught up with Rep. Chirkun recently, and talked with him about his local road department (one of five not a road commission) and the future of transportation in Michigan.

CRA: Rep. Chirkun, can you talk about the relationship you have with your county executive and the county road department?

REP. CHIRKUN: Working at different levels of local government for so long has given me a unique opportunity to really get to know the agencies and people who help manage the roads and infrastructure in Wayne and Macomb counties. I have a close working and personal relationship with Macomb county executive Mark Hackel and his father, Bill, who both served as sheriffs for Macomb.

CRA: Considering you travel around the state as a Legislator, how has that affected your view on transportation in Michigan?

REP. CHIRKUN: Before my election to State Representative, I spent a lot of time in Evart in Osceola County, hunting. But my statewide travel has really grown. This year alone, I've gone to the UP twice. I have learned that county road agencies

are doing great things on our roads, and there are some truly beautiful roads out there, especially in northern Michigan. But my travels have also reinforced the fact that Michigan needs more road funding in order to bring our infrastructure up to the high standards it should be.

CRA: In March, I was joined by CRA's director Denise Donohue and the managing director of the Barry County Road Commission, Brad Lamberg, to present some information to the House Transportation Committee. Was there anything from that meeting that has particularly stuck in your mind?

REP. CHIRKUN: The complexity of road funding and how funds are distributed among various agencies and levels of government is particularly noteworthy to me. There are a lot of moving parts, many of which I think can and should be reassessed.

Special assessments and millages also really stuck out to me. Roseville, where

I served as mayor, never had a special assessment for the roads, whereas Warren did. It made a striking difference to have that level of local support.

CRA: Can you share some insight into your perspective on the future of road funding in Michigan as the 2015 transportation package continues to roll out?

REP. CHIRKUN: The way the package was bundled, rolling out in increments, is hurting the planning process. But the reality is there simply has to be more money for roads.

The number one goal needs to be safe roads and bridges, and to plan for emergencies. I believe there needs to be more emergency and disaster relief funding because more and more frequently we are seeing major issues and emergencies that need to be addressed quickly.

CRA: Are there any transportation issues affecting Michigan's future that stand out as key issues for you?

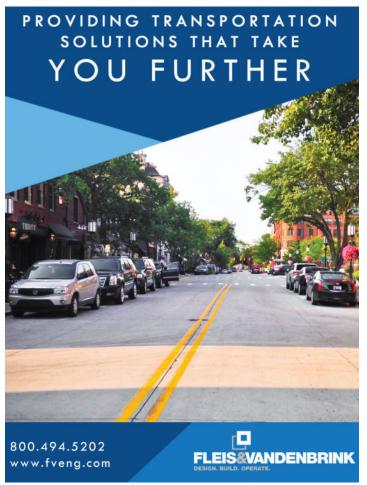
REP. CHIRKUN: Autonomous vehicles are proving to be huge for Michigan. Right now, Michigan is the world leader in autonomous vehicles, ahead of California and everyone else. There are certain aspects of infrastructure that need to be updated to ensure Michigan will maintain its leadership role in that arena. We have taken the first step, but there is more in the pipeline.

I also think we need to make sure we're giving transportation, roads, jobs and the economy the holistic approach it deserves in Michigan. Good jobs need good infrastructure to succeed, and those good jobs will provide the revenue we need to maintain good infrastructure. It's a cycle we should be paying close attention to.

BIO: Chirkun began his career with 29 years in the Wayne County Sheriff's Department before retiring in 2004 as Commanding Officer of the Sheriff's Internet Crimes Unit and Special Operations.

He was also elected to the Roseville City Council where he served for 13 years, then going on to be mayor of Roseville for six years.

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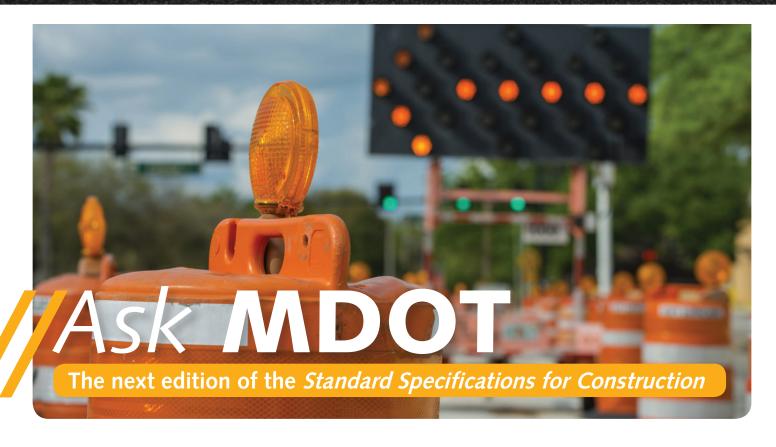


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The Michigan Department of Transportation (MDOT) has started the process to develop the next edition of the *Standard Specifications for Construction*. The lead staff for this effort are Matt Chynoweth, Metro Region deputy engineer; Kristin Schuster, engineer of Design; Matt Bellgowan, Construction Operations engineer; and Jason Gutting, engineer of Construction Field Services.

Committees for each of the nine divisions have been formed and numerous meetings have been conducted for each division. The contracting industry, Michigan Infrastructure and Transportation Association (MITA), is represented on Division 1.

The County Road Association (CRA) has provided MDOT with a member and backup member for each of the committees. MDOT believes both of these groups will help to enhance the next iteration of specifications for construction projects across the state.

The CRA representatives are as follows:

- Division 1, General Provisions: **Tom Byle, PE** (Kent). The alternate is **Sheryl Siddal, PE** (Washtenaw).
- Division 2, Earthwork: **Terry Palmer, PE** (Midland). The alternate is **Mike Torres, PE**.
- Division 3, Bases: Jerry Jehle, PE (Oakland). The alternate is Dan Troia, PE (Ingham).

- Division 4, Drainage Features: **Doug Mills, PE** (Baraga). The alternate is **John Cima, PE** (Houghton).
- Division 5, Hot Mix Asphalt Pavements and Surface Treatments: **Jeff Kocsis**, **PE** (Kent).
- Division 6, Portland Cement Concrete Pavements: Jeff O'Brien, PE (Oakland). The alternate is Bob Peterson, PE (Ingham).
- Division 7, Structures: Wayne Harrell, PE (Kent).
- Division 8, Incidental Construction: Mike Torres, PE (Oakland). The alternate is Dan Troia, PE (Ingham).
- Division 9, Materials: Dan Troia, PE (Ingham).

CRA members are encouraged to communicate with the representatives as noted above for any suggestions on the new specifications. The new specifications will not be addressing any voice changes or unit measurement changes, so more focus will be placed on content enhancement.

The current timeline is projecting release of the new specifications in early 2020 for use in the 2021 construction season.

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GREEN LIGHTS OF HOPE

Michigan's Upper Peninsula has a reputation for brutal winters. Snowfall can last for weeks at a time. In the winter of 2015-2016, snowfall totals were over 160 inches for Marquette County. But of course, life goes on, including travelling home for Christmas.

"The snow started out light enough when I first left Saginaw Valley State University in Saginaw," said 20-year-old Marquette native Grace Iwanicki. "I was working at Bronner's in Frankenmuth. I hadn't been home in over a month and my last trip home was only a couple days. I knew it wasn't going to be the best drive, but I really wanted to see my family for Christmas."

When Iwanicki got to the "snowbelt," between Grayling and Gaylord, the snow picked up.

"Once I crossed the Mackinaw Bridge, the snow really started to come down," Iwanicki said. "It was 'white-knuckle' driving. I could barely see ten feet in front of the car, and there were all sorts of vehicles on the side of the road and in ditches."

"I was in Schoolcraft County when it really started to sink in that I'm in a relatively deserted place with not a whole lot of help around. I drive a silver car without four-wheel drive, and the snow was coming down so hard, if I went off the road, there's no telling what might happen."

"That's when I saw what I call the 'green lights of hope.' I remember my dad saying that county road commissions would be using new green lights on snow plows because they would be easier to see," I wanicki said.

"Seeing those lights gave me a sense of relief," she said. "I felt like, okay, I can do this. I've got someone out there working to keep me and everyone else on the road safe." The 2016-2017 winter season marked the first year county road agencies across Michigan deployed maintenance vehicles with green lights installed for increased visibility.

In a survey from September 2016, CRA found that 89 percent of county road agencies would use green lights on winter maintenance vehicles.

"These are the kind of stories that remind me why I do what I do," said Jim Iwanicki, PE, engineer/manager, Marquette County Road Commission, and Grace's father. "You hear positive stories about the impact you're having on your community all the time, but something like this obviously hits very close to home for me."



Green lights on a Clinton County Road Commission Truck.





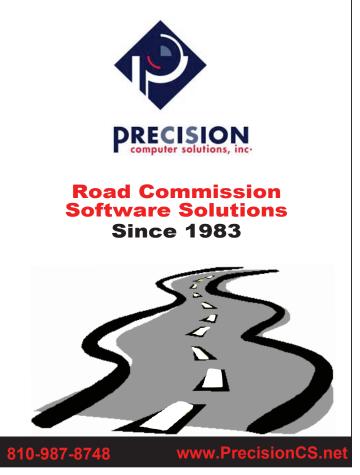
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BRIDGING THE GAPS

Here's what's changing with the *Uniform Accounting Procedures Manual*

The last time the *Uniform Accounting Procedures Manual* for County Road Commissions was updated, Jennifer Granholm was Michigan's Governor, Apple had just released the first iPad® and coach Jim Schwartz, in his sophomore year, predictably led the Detroit Lions through a 6 and 10 season (not everything changes).

Suffice to say, it's been a while since the Uniform Accounting Procedures Manual was updated. And for good cause, too. Updating the 344-page book is no easy task! But it's one the Accounting Manual Subcommittee, a 12-person subcommittee of CRA's Finance & Human Resources Committee, along with the help of the Michigan Department of Treasury, decided to tackle.

What is the *Uniform*Accounting Procedures Manual?

Published by the State of Michigan Treasury Department, the *Accounting Manual* is a top-to-bottom guide to running the financials of a county road agency.

It covers everything from where and how to post transactions, to policy and procedural practices, account numbers, how to create accounts, details on purchasing equipment and much more.

Perhaps the most important need the *Accounting Manual* fulfills is serving as a reference, compliance and auditing guide to ensure standardized accounting practices for road agencies statewide.

Does the *Uniform*Accounting Procedures Manual need to be updated?

Not surprisingly, things have changed since 2010 when the manual was last revised.

There are new Governmental Accounting Standards Board (GASB) standards, new procedures have popped up and the manual overall could be more sensibly arranged.

"GASB standards 67 and 68 were first published in 2012; GASB 74 and 75 in 2015," said **Andrea Herman**, finance/business manager, **Wexford County Road Commission**. Since then, it's been up to the counties to stay connected and in compliance with these standards.

"GASB 67 and 68 were standards we worked on closely with our pension provider," Herman said. "But mostly it's been up to finance directors and others in similar positions to work together, using tools like the Listserv and venues like CRA conferences to communicate."

Besides the new rules, processes have changed with the times as well.

"Language is being regularly updated to more accurately reflect changes in technology," said Jennifer Rosser, director of finance/clerk, Shiawassee County Road Commission, and chair of the CRA Accounting Manual Subcommittee. "For example, the word 'fax' is used many more times in the manual than 'e-mail,' and the way we

What is being changed in the *Uniform Accounting Procedures Manual?*

There are several major aspects of the *Accounting Manual* being updated:

- → New GASB standards (i.e., 67, 68, 74 and 75);
- → Details on federal aid exchange; and
- → Topics reorganized to flow better.

approach sharing information is changing with technology as well."

"There were a few hyperlinks to information in the 2010 edition of the manual, and that is drastically increasing in this edition," Rosser said.

"Any time we can link to a specific document that is covered in the manual instead of quoting it directly, we will. The State Trunkline section is a good example. The State Trunkline contract is updated each time the contract is negotiated, although counties do elect various overhead and equipment methods, having a link to the overall contract, we felt, was the best reference for all," Rosser said.

A new addition to the manual will provide counties their own version of Instructions for Preparing the Act 51 Street Report, specifically for county road commissions on the MDOT Act 51 Distribution and Reporting System.

When will the updated Accounting Manual be released?

No one can say definitively, but the projected release date is 2019. The subcommittee has many more sections to review and update, and must then discuss those revisions with the Michigan Department of Treasury.

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QUICK 'PIC' TIPS

A picture is still worth a thousand words!

A good photo appeals to people's emotions, and captures the viewer's attention and tells a story.

According to the website *Brain Rules*, people usually remember only 10 percent of what they hear. If a related image is paired with that same information, people remember 65 percent of the material.

In an internet era, it's important to think about visuals when telling a story about the road agency. It's also good to use Michigan residents and local images whenever possible.

Here are eight quick tips for better pictures!



Photo Credit: Ionia County Road Commission.

1. Use people!

People are interesting! While engineers are more likely to see pavement and culverts and beams, viewers are less likely to engage with such content. Action shots are a fantastic way to grab attention. Capture people walking on a bridge, workers loading a truck or even a sign install to sell the content.

2. Capture images in portrait and landscape orientation.

Cameras are designed to be held horizontally, which creates images in a landscape format. Roads and bridges usually inspire horizontal framing. Some objects, like people are best framed vertically. Take the same object of the photo in both orientations. A publication or brochure with all horizontal photos at the same size is boring to the eye.



Photo Credit: Pattrick Yockey.

3. Steady! Use a tripod in poor light.

A tripod produces a clear picture, especially in poor light.

4. Get some focus.

All photos need a focal point. It tells people what to look at. A focal point can be lots of things from water running out of a culvert; a large hole in the road; or a utility pole in the right-of-way. Avoid the automatic date stamp. It's great for legal matters but draws the eye to the edge of the picture.



Photo Credit: Lhoon/Flickr.

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5. The rule of thirds.

The rule of thirds means that the subject isn't centered. The main focal point is a bit off to the right or left side. Instead of just looking at the center, a viewer looks at the entire composition of a photo. This is more engaging and particularly common in a social media world.



Photo Credit: Gabriel Garcia Marengo/Flickr.



Photo Credit: Ginny Forsyth/Flickr.

6. Look at it differently.

Take photos from unexpected angles. They can make photos unforgettable and create an illusion of depth or height.

7. Avoid zooming in.

If you want to get a close-up shot, move closer to the subject. Zooming in with the lens makes a photo look blurry or pixelated.

8. Use available photo resources.

Can't take your own gorgeous photo? There are several free and paid stock photo sites that offer a wide array of photo options.

Free stock photo websites:

- Unsplash (unsplash.com).
- PicJumbo (picjumbo.com).
- MorgueFile (morguefile.com).
- New Old Stock (nos.twnsnd.co).
- Public Domain Archive (publicdomainarchive.com).

Paid stock photo websites:

- iStock (istock.com).
- Getty Images (gettyimages.com).
- AP Images (apimages.com).
- Shutterstock (shutterstock.com).

Prices vary. Many sites offer subscriptions or individual photo purchases.



Photo of the Michigan State Capitol. Purchased from iStock for \$33.

CROSSROADS **EVENT** Calendar

October 4-6

Superintendents Seminar

2017 marks the 43rd annual Superintendents Seminar featuring educational sessions and heavy equipment trade show at the Little River Casino & Resort, Manistee.

October 17-18

Winter Operations Conference

A two-day event featuring general sessions and exhibitors to improve technical opportunities and learn new practices for road winter maintenance in Michigan. At the Shanty Creek Resort, Bellaire.

October 27

PR Workshop

CRA's Public Relations Committee hosts a workshop on creating a practical digital communications workflow for your county road agency. At the Courtyard Marriott, Mt. Pleasant.

December 5

3rd Annual Legal Issues Symposium and Local Road Agency Budgeting & Financials

This year's Legal Issues Symposium will focus on pavement warranties and telecommunications in the right-of-way. Local Road Agency Budgeting & Financials will dive into the world of road agency finance. At the Comfort Inn & Suites, Mt. Pleasant.

For additional details or to register for CRA events, visit www.micountyroads.org/events

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Introducing Roads+™

For more than 37 years, RUSH-PAC has played a vital role in CRA's legislative success in Lansing. But as infrastructure demands increase and the responsibilities of county road agencies expand it's time to bid farewell to Rural Urban Streets and Highways (RUSH-PAC) and say hello to **Roads+TM**.

Roads+TM is the new name for the political fundraising arm of CRA, bringing together people who understand the value of good roads and bridges.

The goal of Roads+TM is to promote better road, bridge and right-of-way policies in Michigan by endorsing and contributing to the campaigns of candidates for state office who understand road and bridge issues and will advocate judicious road policies.

Roads+[™] better reflects the wide array of transportation infrastructure that Michigan county road agencies are responsible for including roads, culverts, bridges and the right-of-way. •••



Information on how to join Roads+™, golf outings, the 2018 Silent Auction and a list of Trustees is available online at http://micountyroads.org/Taking-Care/Roads-Plus.



Key transitions at...

Road Commissions and Departments

Robin Henry is now administrative assistant at the Baraga County Road Commission.

Diane Elder is now board clerk for the **Cass County Road Commission**.

Elizabeth Bramer is now finance director at the **Mecosta County Road Commission**.

Tim Nestle is now superintendent/ manager for the Mecosta County Road Commission.

Linnea Rader is now board secretary/accountant for the Van Buren County Road Commission.

Mile Marker

Tim Chaffee, grade crew foreman, retired from the Barry County Road Commission after 48 years.

Greg Hull, road worker, retired from the **Barry County Road Commission** after 39 years.

Michael Bateson, road worker, retired from the Barry County Road Commission after 42 years.

Gregory M. Pardike, board secretary/ accountant, retired from the Van Buren County Road Commission after 42 years.

In Memorium

On July 10, **Joseph M. Skrobiak**, commissioner for the **Menominee County Road Commission**, passed away. He was commissioner since 2016.

Do you have a staff member you want recognized in *Crossroads*? Call Alexandra Contreras at 517.482.1189, or email acontreras@micountyroads.org.

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COUNTY ROAD AGENCIES:

Q: How did the snowmobiler cross to the other side of the road?

A: Using the thermoplastic stripe, of course. (no joke)

Snowmobiling is an important winter sport to northern Michigan and the Upper Peninsula. The state currently has over 189,000 registered snowmobiles, which is third-most in the US and more

Michigan also boasts 3,000 miles of groomed trails, seventh-most in the US. And in many locations, snowmobilers from trail to trail.

than every Canadian province.

must cross the local paved roads to get Pat Harmon Managing Director at CCRC at a snowmobile crossing in Charlevoix County.

"Snowmobile tracks have sizable studs (3/4 inch) that are tipped in carbide," said Pat Harmon, managing director of the Charlevoix County Road Commission, which manages three snowmobile crossings. "If the snowmobile spins its track, it cuts long grooves in the asphalt pavement or the coating," which get deeper with every passing snowmobile.

Modern snowmobiles also have carbide runners on the skis, which score and damage the road surface.

Counties pioneered the snowmobile crossing protection

Michigan was the first state in the US to begin protecting its roads at designated snowmobile crossings using a thermoplastic material, said Doug Kinkema, manager of PK Contracting in Lake City.

The Scandinavian technology was brought back to Michigan from Norway

by an innovative road contractor.

"We started with this material into the counties in the 1990s. Then after the county road commissions had pilot-tested the program and figured out how to use it, then the Michigan Department of Transportation adopted the technology and began using it on their roadways," Kinkema said.

Trade named Cleanosol® (formerly Norskilt®), the product is a plastic powder that's heated to 400 degrees F. on site and extruded into three 90 mm.-thick layers that are overlapped and laid across the intended snowmobile path on either new or an existing road surface. It may also be re-applied over a prior Cleanosol® treatment.



Signs of damage to a snowmobile crossing in Charlevoix County.

The resulting surface lasts three to five years, depending on how many snowmobiles utilize the crossing. Snowplows do not damage the thermoplastic surface.

Cost of the protective treatment is significant - somewhere in the neighborhood of \$2,500 to \$5,000, depending on the amount of material applied, whether the road shoulders are included, location and other factors.

PK Contracting is the only contractor licensed to use the technology in the state.

Safety is a key concern

The Alger County Road Commission (ACRC) has heavy snowmobile traffic that drives the area's tourism in winter, yet is sometimes challenged to protect the roads while also providing safe routes for sleds.

Snowmobile Figures

2007 = 199,592 snowmobiles 2017 = 189.096 snowmobiles

Source: Assessment of Snowmobiling in Michigan, MDNR.

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WINTER SPORTS BOOSTERS

Among the most popular snowmobile trails in Alger County is the 10mile ride from Munising to Miner's Castle, a part of Michigan's Pictured Rocks National Lakeshore. ACRC continues to utilize the snowmobile trail permit system to ensure a safe ride for snowmobiles and vehicles on County Road H-58 heading east out of Munising. This section of trail remains in use on an interim basis, while another route is developed.

"We have been working with DNR regional office and the permit holder for this trail system, the Snowmobile and ORV Association of Alger County to develop an alternate route on the Miners River Crossing so that we do not have snowmobiles in the traffic lanes," said Robert Lindbeck, PE, ACRC engineer-manager, who is responsible for 10 local road snowmobile crossings and utilizes the thermoplastic coating.

"One of our biggest concerns in protecting the roads against snowmobile damage, is when snowmobiles run on the roads for a longer distance to get from one trail to another. We don't have the financial ability to coat whole half-mile sections of roads," Lindbeck said.

Another alternative

In Houghton County, the road commission takes a different tack by using six-inch thick reinforced concrete slabs approximately 22 feet wide and spanning 24 feet across the road for its snowmobile crossings, according to Kevin Harju, PE,

engineer-manager of the Houghton County Road Commission (HCRC). The cost per crossing is \$15,000 and HCRC has 40-50 crossings, Harju said.

"We cut the [asphalt] road the width of the crossing and then we put in reinforced concrete with mesh into the spot," Harju said. "We don't do any surface treatments."

"We believe the concrete crossing has five to six times the life expectancy of the thermoplastic," Harju said. "But concrete can still be damaged by a snowmobile."

Follow the \$\$

- Snowmobile registration = \$30/three years
- Under the 19-cent gas tax, in recent years the Michigan Recreation Improvement Fund (RIF) received \$17.1 million from the Michigan Transportation Fund (MTF) or 2 percent of all gas tax collected. Fourteen percent of that amount (\$2.4 million) is dedicated to snowmobiles.
- By 2018, which marks the first full year of the 26.3-cent state gas tax, the snowmobile share of the RIF will be \$3.4 million.

more timely replacement of this expensive road segment.

"While some people say that snowmobiles buy gas at the pump and therefore they've already paid for this expensive micro-road treatment, they do not understand how Michigan's Recreation Improvement Fund works," said CRA lobbyist Ed Noyola.

"This fund takes two percent directly off the top of gas tax revenues and routes it to the Natural Resources Trust Fund to pay for snowmobile trail grooming, boat marinas and other recreational enhancements that are very important to Michigan's economy," Noyola said.

For the last many years, the RIF has collected about \$17 million annually. A very small fraction of it comes back to state, county or municipal road owners to fund snowmobile crossings, from signage to thermoplastic strips or concrete treatment. (See "Follow the \$\$" above.)

CRA is seeking legislative support to have a small portion of those dollars made available to county road agencies to improve the snowmobile sport while also preserving Michigan's fragile road system. ---



Snowmobile Crossing sign

Legislative priority on funding for snowmobile crossings

One of the County Road Association's legislative priorities seeks financial assistance such as a grant program from the state recreation fund to pay for

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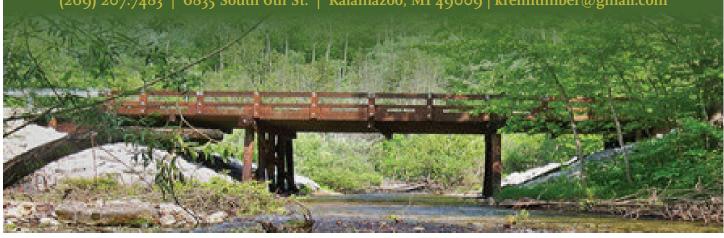
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EDITOR'S NOTE



No one can tell your story better than you! Every road commission has a story. It may be a time when green lights were the "beacon of hope" for a driver during a blizzard, it may be resilience during a hard-hitting summer storm or it could be something as simple as how you source your road salt.

These personal stories demonstrate just how important the work and creativity

of Michigan's county road agencies are to the state.

If you work with road agencies day-to-day, you are familiar with the challenges involved such as extended work days in the winter and inadequate road funding. I believe that if more people knew the stories behind roads and bridges in Michigan, the more people would show empathy and be advocates on behalf of county road agencies.

Speaking from personal experience, I was once an uninformed resident complaining about the condition of Michigan's roads. It wasn't until I started working at CRA and sharing the stories of members like you that I more fully understood the enormous efforts behind maintaining Michigan's road systems.

For the public to continue to support funding for roads and bridges, they have to understand the value and importance. They must know your story. Public support is critical as the Legislature begins to waver on fulfilling their road funding obligations for the future.

Don't be afraid to share your stories! Use the resources available to you whether it be *Crossroads*, PR Tips or me to make sure your story gets told.

Christina Strong
Editor and Communication Manager

huistura :

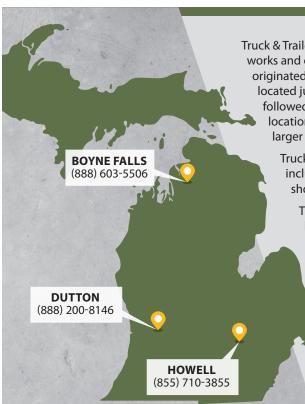




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