NACE News
The Voice of County Road Officials
Monthly Publication · Washington, DC

Executive Committee Monthly Update

By: Patrick Ginnetti, NACE Northeast Region Vice President

As the new Northeast Region Vice President for NACE and the Mahoning County Engineer, I serve a county of roughly 230,000 residents in Northeast Ohio, an area whose history directly shapes today's infrastructure challenges. Youngstown, the county seat, emerged as a national industrial powerhouse from the early 1900s through the 1970s, driven by abundant regional reserves of iron ore and block coal. These resources positioned Mahoning County at the center of America's steel production, fueling the Industrial Revolution and supplying critical materials during both World Wars.

That same industrial era that powered economic growth for decades also left behind a network of abandoned mines. As water filled those old workings, it reacted with sulfide minerals and produced acidic, metal-rich runoff known as acid mine drainage (AMD). Today, AMD affects streams, ecosystems, and the infrastructure we maintain. This connection between past industry and present challenges guides our engineering and policy work, emphasizing the need for resilient infrastructure and coordinated regional collaboration.

Many regions of Appalachia and Eastern Ohio have been affected by historic coal mining, with streams and rivers often exhibiting a bright orange "rust" colored staining along their beds and banks. This discoloration, commonly known as yellow boy, results from iron precipitates formed when water passes through abandoned underground mines and reacts with oxygen at the surface. Although visually distinctive, the orange coating is far more than an aesthetic concern, it signals the presence of acid mine

drainage (AMD), a condition that degrades waterways and accelerates deterioration of critical roadway infrastructure.

AMD develops when sulfide minerals, primarily pyrite, are exposed to air and water within abandoned mine workings. This reaction generates sulfuric acid, which dissolves iron and other metals from surrounding rock. As the acidic water emerges and encounters oxygen, the dissolved iron rapidly oxidizes and settles out, forming dense orange deposits along the streambed. These iron flocs blanket and suffocate aquatic habitat, reduce biodiversity, and alter the chemistry of the watershed.

In addition to iron, AMD often carries a number of heavy metals like aluminum, manganese, zinc, cadmium, arsenic, and lead. In low-pH (acidic) conditions, these metals remain dissolved and can travel long distances downstream, impairing fish health, inhibiting macroinvertebrate reproduction, and degrading drinking-water sources. Streams heavily impacted by AMD can become nearly lifeless, unable to support aquatic life and are often described to as “dead”.

For county engineers and transportation agencies, AMD presents not only an environmental challenge but also a significant threat to public infrastructure. Highly acidic water accelerates deterioration of concrete box culverts and corrugated metal pipe, shortening their service life and increasing long-term maintenance costs. In concrete structures, acidic flows dissolve calcium hydroxide and other cementitious compounds, weakening the structural matrix and promoting spalling, cracking, and corrosion of reinforcing steel. Corrugated metal pipes are even more vulnerable. Acidic water aggressively corrodes steel, thinning pipe walls and leads to premature failures, sinkholes, and roadway washouts. In watersheds with historic mining, AMD represents a direct and ongoing risk to the durability and reliability of critical drainage infrastructure.

Mitigating AMD and restoring affected waterways requires a combination of engineering, chemistry, and sustained watershed management. Passive treatment systems, including constructed wetlands, limestone channels, and anaerobic bioreactors, use natural processes to neutralize acidity and remove metals. These systems rely on limestone to raise pH, organic

material to support sulfate-reducing bacteria, and settling ponds to capture iron and other precipitates before they reach downstream waters. The settling process is similar to a septic system, where clarified water decants before moving to the leach field. Active treatment systems, typically used for high-volume or highly acidic discharges, involve continuous dosing of alkaline materials such as hydrated lime, soda ash or caustic soda to neutralize acidity and precipitate metals. Both approaches aim to improve water quality, rebuild aquatic habitat, reduce corrosive impacts on infrastructure, and gradually restore biological health.

Successful AMD remediation often requires collaboration among state agencies, watershed groups, engineers, and local governments. Long-term monitoring ensures that treatment systems continue functioning effectively, while reclamation of mine lands reduces ongoing contamination. Over time, formerly orange-stained waterways can recover, supporting fish, wildlife, and recreational uses once again. Although the legacy of abandoned coal mines is complex, modern treatment strategies provide a clear path toward restoring the health and resilience of impacted rivers, streams, and the infrastructure that depends on them.

NACE Updates



NACE Communities - How to Links

How to access NACE Communities

How to create your profile in NACE Communities

Manage your Settings and Notifications

ONE CLICK ACCESS!

Did you know simply adding NACE Communities to your Favorites Bar or adding a Bookmark skips the login process?

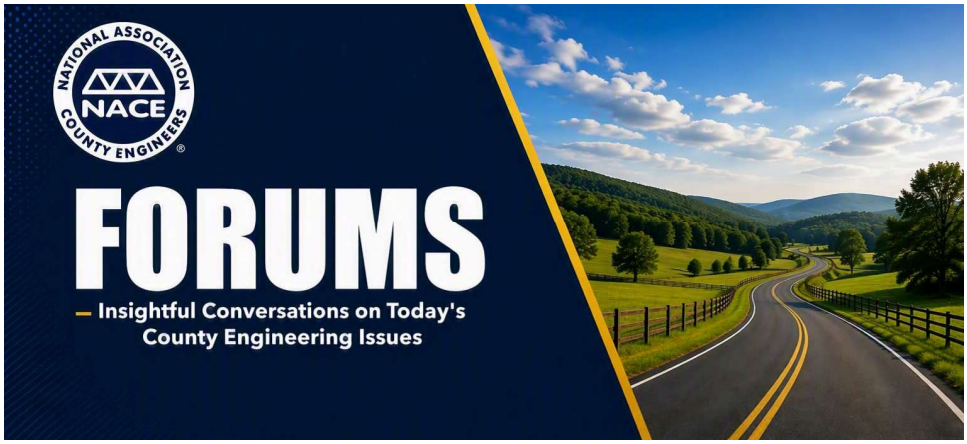


HELP NEEDED!

The Pavement Preservation Committee is looking for subject experts to present at the NACE Annual Conference. If you have experience with any of the following topics and would like to present, please email Brad Ketels at **Brad.Ketels@linncountyiowa.gov**.

1. **Sign Standards for Unpaved Roads** - Policies for installing Curve Signs / Rough Road Signs / Speed Signs
2. **Road Management and Maintenance for Unpaved Roads** – General unpaved road management and maintenance
3. **Sight Distance Requirements for Unpaved Roads** - Development requirements / speed study & 85th percentile / minimum allowances / denying an access / allowing at least one access
4. **Safety design standards** - safety of unpaved roads
5. **Liability of unpaved roads** – How to balance liability and resources needed to react, plan, and implement unpaved roads activities
6. **Best Practices - Unpaved Road Policies –** Policies related to unpaved roads
7. **Balancing Community Needs: Commuters, residents, and tourism –** Department involvement with community needs
8. **Non-Traditional Road Users and Unpaved Roads** - Several counties in the host state of Ohio have an Amish population. Gain perspective on how they deal with non-traditional road users and the impacts they create.

9. **Road Classifications** - Different agencies, DOTs, etc. classify some road surfaces differently. These differences can impact the way the roads are managed and maintained.
10. **Life Cycle Costs** - Developing tools to help account for and illustrate long term costs of maintaining paved and unpaved roads



We want to hear from you!

Last week, NACE introduced a new membership engagement webinar entitled the "NACE Forum on Property Tax Reform," (Recording). NACE webinar Forums were designed to a place where NACE members can discuss current issues or challenges in a live panel discussion.

If you have a future topic you would like to have addressed, please email Dan Ketelsen at **dketelsen@countyengineers.org**.

Meet the Member



Eric Hilty

County Engineer
NACE Pavement Preservation Committee Chair
Jefferson County, Ohio

College Alma Mater
The University of Akron

What do you enjoy most about NACE?
What I enjoy most about NACE is the opportunity to connect with other county engineers and public works professionals from across the country. Many of us face similar challenges, and NACE provides a great opportunity to exchange ideas, learn from each other's experiences, and bring practical solutions back to our own communities.

What sparked your interest in civil engineering?
I've always enjoyed understanding how things are built and solving practical problems. Civil engineering stood out to me because the work has a direct and lasting impact on people's everyday lives. Roads, bridges, drainage systems, and other public infrastructure are things people depend on every day, and I liked the idea of building and maintaining something that serves an entire community.

What is the most rewarding project you've worked on, and why?
The most rewarding projects are the ones where you can clearly see the difference between where you started and where you finished. Whether it is replacing a bridge, improving a roadway, or solving a long-standing drainage problem, it is rewarding to take a project from an identified need

through design and construction and ultimately deliver an improvement that will serve the public for years to come.

What is the best piece of advice you've ever received about managing a large-scale project?
Plan ahead, communicate often, and address problems early. Large projects rarely go exactly according to plan, so good project management is not about avoiding every problem—it is about identifying issues early, communicating clearly with everyone involved, and making timely decisions that keep the project moving forward.



October 6, 2026
2pm EST

Webinar presented by;

When the centerline starts to fail, do you fix the road or fix the joint? Roadway departure crashes continue to drive the adoption of centerline rumble strips across the country, but many agencies face a familiar challenge: deterioration often starts at the centerline joint, which can be accelerated by milled rumble strips.

This webinar examines how trench paving (also called slot paving) methods enhanced with Void Reducing Asphalt Membrane (VRAM) are helping agencies target the problem at its source. Learn how this approach can restore distressed centerline joints, preserve rumble strip performance and extend pavement life while avoiding more extensive rehabilitation at full width.

Presenters:

- Vince Venturella vventurella@asphalt-materials.com
- Andrew Eicher aeicher@asphalt-materials.com

REGISTER HERE

October 21, 2026

2pm EST

Webinar presented by;

RTVISION

Infrastructure projects generate a constant flow of information between owners, consultants, inspectors, and contractors. When that information is managed through emails, spreadsheets, paper documentation, and disconnected systems, project teams can spend as much time finding, verifying, and re-entering information as they do acting on it.

This webinar will explore how technology and real-time data sharing can create a more connected approach to construction project delivery. Attendees will see how providing owners, consultants, contractors, and field personnel with access to current project information can improve communication, accelerate decisions, reduce duplicate effort, and provide greater visibility into project progress, costs, changes, documentation, and potential issues.

The session will examine practical strategies for creating a connected project environment where information captured by one participant can immediately support the decisions and activities of the entire project team.

Session presenters:

Melissa Scherer
President/CEO
RTVision
Matt Messerly
Construction Engineer
Wright County, MN
Jeremy Hofmeister
Associate, Project Construction Leader
Short Elliott Hendrickson Inc.

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Click HERE for more NACE Connect and NACE Forum Webinars

NACE Job Board

Organization: Alachua County Board of County Commissioners
Title: County Surveyor
Location: Alachua, Gainesville, Florida
Salary Range: $93,392.00 - $112,320.00 Annually
Deadline to apply: March 13, 2026

Learn more

View All Jobs



Take a look at the latest news and resources from Washington DC:

- Trump cancels $1B in federal spending in latest challenge to Congress
- Vote on Chinese car imports bill sought as Xi meets with Trump
- Trump to announce largest steel plant in U.S. history will be built in Iowa
- Midterm candidates dumping debates: 'There's no reason to get up there and argue about differences of opinion'
- Proposed Rule on the 2030 Census: What Counties Need to Know
- Fixing Emergency Management for Americans (FEMA) Act: A County Advocacy Toolkit
- DOT Navigator - Grants
- DOT Navigator

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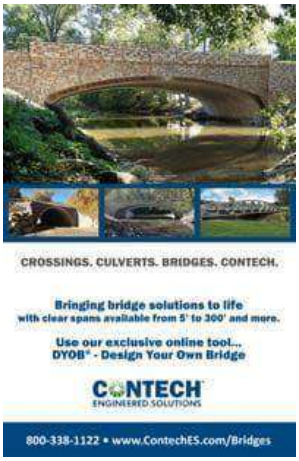
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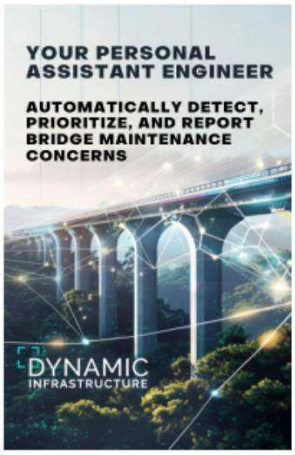
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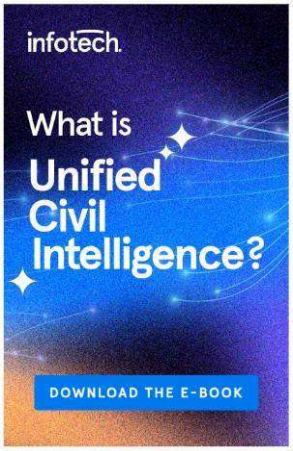
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