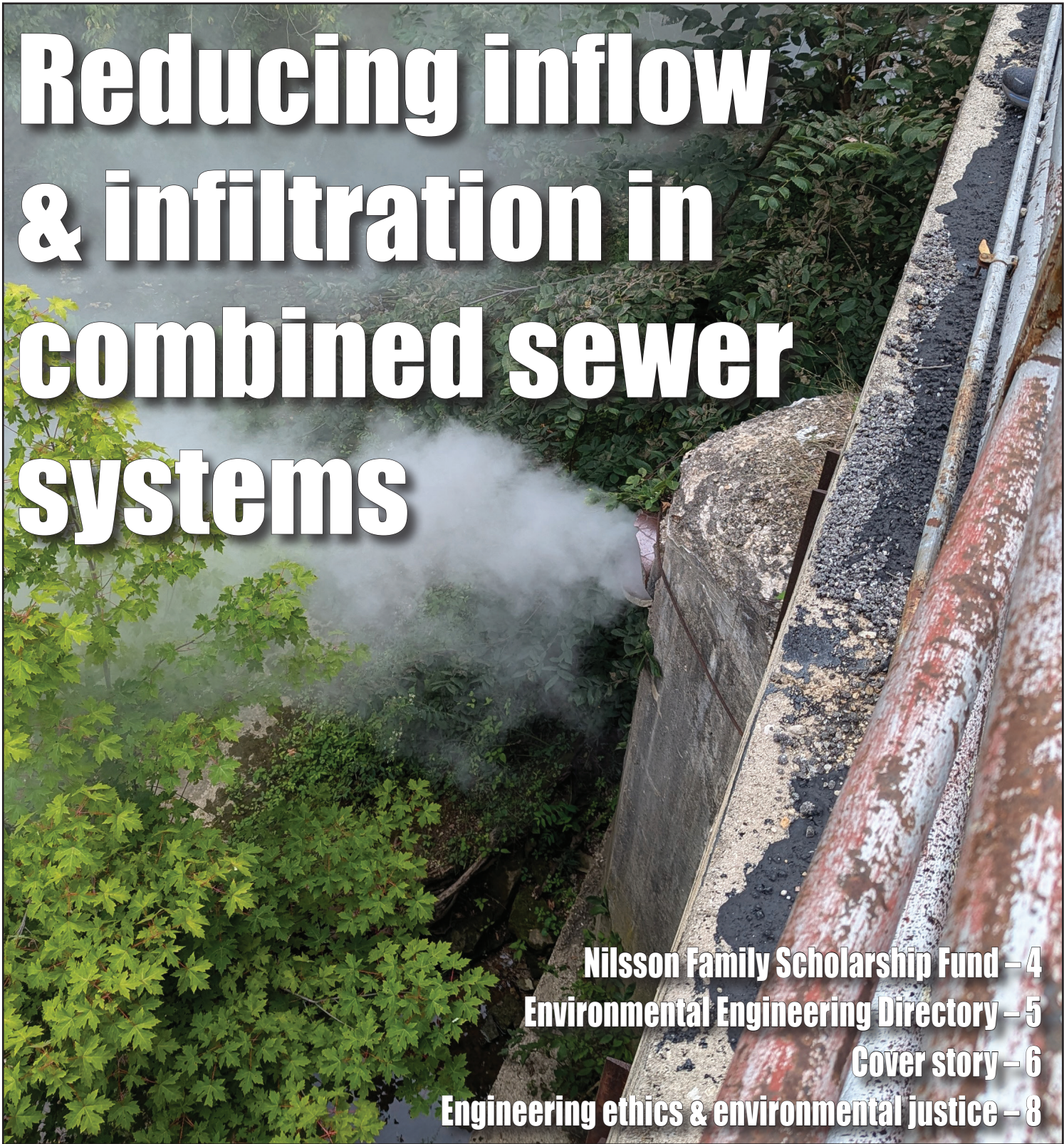


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LEADERSHIP VIEWS

by Scott Dilling, MSME, PE, President,
Engineers Foundation of Ohio



The role ABET plays on the pathway to becoming a professional engineer

As an Ohio PE and president of the Engineers Foundation of Ohio, I am ever more aware and grateful for the work that the State Board of Registration for Professional Engineers and Surveyors does to protect the practice of engineering and the public welfare within our state. Licensed PEs like me know that the State Board takes their work seriously—from reviewing applicants' credentials and work experience, to investigating non-licensed engineers and businesses performing engineering, and auditing the continuing professional development (CPD) hours required in the renewal process for all of us.

While the biennial paperwork and possible CPD audits may seem to be a nuisance to some of us, in the end the State Board is protecting us as well by enforcing the rules and laws pertaining to engineering for everyone in Ohio.

The State Board plays a significant role in ensuring that all those engaged in engineering abide by the same rules within Ohio. In addition to the State Board, NCEES (see <https://www.ncees.org> for more details) ensures that all engineering graduates have the appropriate knowledge to become a professional engineer by providing both the Fundamentals of Engineering (FE) and the Principles and Practice of Engineering (PE) exams.

The question I wish to address in this column is who oversees and audits what is taught within our engineering institutions and universities? The answer is ABET (see <https://www.abet.org> for more details).

ABET originally stood for the Accreditation Board for Engineering and Technology, but it is now simply known as ABET. According to ABET, their purpose is to "accredit college and university programs in the disciplines of applied and natural science, computing, engineering and engineering technology at the associate, bachelor's and master's degree levels."

In their beginning more than 80 years ago, ABET set the educational standard for engineering programs at universities across the United States. Today, ABET says it is the "basis of quality for STEM disciplines all over the world."

According to the organization's website: "ABET accredits a total of 4,773 programs at 930 colleges and universities in 42 countries and regions worldwide."

In Ohio alone, ABET accredits programs at 45 institutions and universities including The Ohio State University, University of Cincinnati, the University of Akron, the University of Toledo,

See "ABET's role on the PE pathway," page 2



On the cover:

Smoke testing is a method to detect inflow and infiltration (I&I) issues. This smoke testing uncovered an unexpected cross connection along a river wall.

See feature, "Reducing inflow & infiltration in combined sewer systems," page 6.

Photo courtesy of American Structurepoint.



Youngstown State University and Stark State College of Technology just to name a few. ABET accredits programs not only at public state universities but also at private institutions such as Case Western Reserve University, Baldwin Wallace University, Cedarville University, and Otterbein University. Even the Air Force Institute of Technology at Wright Patterson Air Force Base has ABET-accredited programs, including their Master of Science degrees in Nuclear Engineering and Aeronautical Engineering.

So, you may ask: "What does ABET accreditation mean for the institution?"

The answer is that the ABET accreditation process includes a set of policies and procedures, general program criteria, and specific program requirements, which are decided by each of the overseeing technical societies, including: American Society of Mechanical Engineers (ASME), Institute of Electrical and Electronic Engineers (IEEE), and American Society of Civil Engineers (ASCE), and many others as well. Besides stating what is expected within an ABET-accredited program or degree, a trained ABET team visits each institution every six years to review the program specifics.

The ABET visitation team is comprised of volunteers from academia and industry who are trained by ABET on how to conduct a formal visit to the institution. Using a self-study report generated by the institution, the ABET visitation team reviews all necessary documentation and conducts onsite interviews with faculty, administration, student advisors, current students of the program, and members of their industrial advisory committee.

The ABET accreditation process is similar to the quality assurance goals pursued in industry, such as ISO 9001 certification. In fact, ABET is ISO 9001:2015 certified.

The *ABET Accreditation Policy and Procedures Manual* applies to all ABET-accredited programs. It covers the details of the accreditation and renewal process. It also details how the institution must identify their ABET-accredited programs on their website and other literature.

Furthermore, each accredited program must include its enrollment and

graduation numbers for the past several years. The program educational objectives—as determined by the program's faculty, graduates, and industry advisory members—must also be displayed on the program's website and/or printed literature. This information is very useful for prospective students who are evaluating various institutions and programs.

ABET has four accreditation commissions that oversee all aspects of the accreditation activities under their control:

1. Applied and Natural Science Accreditation Commission
2. Computing Accreditation Commission
3. Engineering Accreditation Commission
4. Engineering Technology Accreditation Commission

Each commission must abide by ABET's accreditation policy and procedures.



Within each of the ABET commissions, there is a written set of criteria that must be met by each ABET-accredited program. The general criteria include eight detailed areas that each program must satisfy to earn and maintain their accreditation:

1. students
2. program educational objectives
3. student outcomes
4. continuous improvement
5. curriculum
6. faculty
7. facilities
8. institutional support

These eight areas help to ensure that student performance is evaluated, that there is a systemic and documented process for reviewing and updating program educational objectives, and that they are consistent with the mission of the institution.

Student performance is evaluated by collecting data from student work (i.e., test questions, lab reports, projects and other assignments) throughout the required courses in the degree program. A documented process must be used to evaluate the collected student work (usually by the faculty) to determine whether students are achieving the learning goals and outcomes.

If it is determined that students are achieving the desired learning outcome, faculty must initiate a plan to improve student success with this learning outcome. This step is critical in the continuous improvement process for the program.

Other criteria evaluate the conditions of laboratories and equipment, the number of faculty teaching within the program, and other student services such as advising.

The curriculum of the degree program is reviewed by the ABET visitation team to ensure that it includes the necessary coursework based on the specific requirements listed in ABET's accreditation criteria for the relevant commission. The process even includes a review of student transcripts to verify completion of all required coursework.

As you can see, an ABET-accredited program must meet or exceed a range of policies, procedures, and criteria in order to display the ABET logo on its website or promotional materials.

As program director for mechanical engineering technology at the University of Akron, and an ABET program evaluator volunteer, I can attest that the ABET accreditation process is highly detailed and requires a significant commitment of time and resources from all program faculty.

When done correctly, the process identifies areas for improvement within the program, leading to greater student success. Better student success produces better-prepared graduates, which ultimately strengthens the engineering profession.

Please continue to encourage engineering graduates and soon-to-be graduates of a four-year, ABET-accredited degree to take and pass the Fundamentals of Engineering (FE) Exam.

State Board finalizes settlements with engineers, firms



At its meeting on January 21, 2025, the Ohio State Board of Registration for Professional Engineers and Surveyors accepted settlement agreements in nine cases.

No CoA—Individual engineer

One PE, a resident of Sheffield Lake, Ohio, offered and provided engineering services in Ohio through a firm at a time when the firm did not possess a certificate of authorization (CoA) with the State Board, in violation of Ohio Revised Code Sections 4733.16, 4733.20(A)(2), (3) and 4733.22, per the State Board. In order to avoid further administrative action for violations of the Ohio Revised Code Chapter 4733, the PE entered a settlement agreement that included paying a \$1,000 fine and agreeing to comply with the laws and rules governing the practice of engineering and surveying in Ohio.

No CoA or inactive CoA—Firms

In six separate cases, engineering firms offered and provided services in Ohio at a time when they either did not possess a CoA from the State Board or their CoA status was inactive, in violation of Ohio Revised Code Sections 4733.16 and 4733.22, according to the

State Board. In order to avoid further administrative action for violations of the Ohio Revised Code Chapter 4733, each firm entered into a settlement agreement that included paying a \$1,000 fine and agreeing to comply with the laws and rules governing the practice of engineering and surveying in Ohio. These firms were located in North Ridgeville, Ohio; Liberty Corner, New Jersey; Washington, D.C.; Irvine, California; West Jefferson, Ohio; and Downers Grove, Illinois.

Failure to report discipline

A firm located in Lincoln, Nebraska, failed to report prior disciplinary action as required on a CoA renewal application submitted to the State Board in September 2024, in violation of Ohio Revised Code Sections 4733.20(A)(1) and 4733.22, the State Board said. In order to avoid further administrative action for violations of Ohio Revised Code Chapter 4733, the firm entered into a settlement agreement that included paying a \$2,000 fine and agreeing to comply with the laws and rules governing the practice of engineering and surveying in Ohio.

Aiding unlicensed engineering practice

The State Board of Registration also reported that a PE applicant living in

Washington, D.C. — who at that time did not possess an Ohio professional engineer registration — aided and abetted a firm in offering and providing engineering services in Ohio when the firm did not possess a CoA with the State Board, in violation of Ohio Revised Code Sections 4733.16, 4733.20(A)(2), and 4733.22. In order to avoid further administrative action for violations of Ohio Revised Code Chapter 4733, the PE applicant entered into a settlement agreement that included paying a \$1,000 fine, accepting a public reprimand, and agreeing to comply with the laws and rules governing the practice of engineering and surveying in Ohio.

The Ohio State Board of Registration for Professional Engineers and Surveyors is the state agency that regulates and licenses the professions of engineering and surveying in Ohio. The State Board licenses approximately 30,000 registered professional engineers and professional surveyors, 3,700 registered engineering and surveying firms and evaluates more than 2,200 licensing applications yearly. The State Board's mission is to safeguard the health, safety, property, and welfare of the citizens of Ohio by providing effective licensure and regulation of professional engineers, professional surveyors and engineering and surveying firms.

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Nilsson Family Scholarship Fund honors legacy of service and supports future engineers

New
in 2026!

EFO SCHOLARSHIP PROGRAM

Nils "Rik" Nilsson, PE, FNSPE, is establishing the **Nilsson Family Scholarship Fund** to benefit exceptional Northeast Ohio students with financial need.

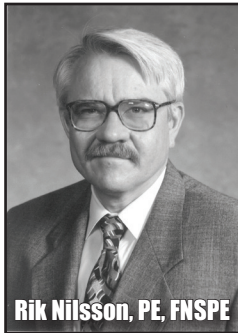
This new Engineers Foundation of Ohio (EFO) scholarship honors the Nilsson family's enduring commitment to education and service and is dedicated to the memory of Rik's father, Vincent Nilsson, PE. Rik's vision is to support aspiring engineers who demonstrate academic excellence, leadership potential, and a desire to make a positive impact through engineering.

"Establishing this scholarship was something that I had been thinking about for a long time," Rik said, in a moment of reflection.

His father, Vince, had served NSPE-Ohio as a director from the Mahoning Valley Chapter for several decades. "He was from a generation that believed that it was part of your professional duty to serve on engineering boards and committees, and he believed engineering was the highest profession to which one could ever aspire."

The Nilsson Family Scholarship offers an annual award of \$1,500 to a promising student with a strong aptitude in math, science, and technical subjects who may lack the financial means to pursue an engineering degree. Funds may be applied toward college tuition and required instructional materials, including textbooks.

"By setting aside an investment for student engineers, Rik is ensuring that his family's legacy of service will continue for



generations," said EFO Executive Director Tim Schaffer. "Over the years to come, the Nilsson family will bolster many future students and the communities that they will one day serve in their engineering careers."

Rik Nilsson is a longtime advocate for advancing the engineering profession in Ohio. With bachelor's and master's degrees in electrical engineering and a PE license, Rik served as president of NSPE-Ohio in 1993 and has held key leadership roles within the Society. Currently, he is the inaugural chair of **Chacey Circle**, the EFO philanthropic program that empowers engineers to lead the profession by creating scholarship legacies to invest in the next generation.

Rik is also a respected leader in the Mahoning Valley Chapter of NSPE-Ohio, where he remains active in professional development and community outreach, championing EFO's Imagine Engineering and Ohio MATHCOUNTS programs. In recognition of his outstanding service to the profession and community, Rik was named a Fellow of the National Society of Professional Engineers—the organization's highest honor.

His father, Vince Nilsson (1918–2005), was a decorated U.S. veteran and respected electrical engineer who retired as division engineer from Ohio Edison. During World War II, he served in North Africa and Italy with the 337th and 1338th Engineer units of General Mark W. Clark's Fifth Army, and he was awarded the Bronze Star for his courageous service. After the war, he earned his electrical engineering degree from Youngstown State University. A licensed PE, Vince was a past president of the Mahoning Valley Chapter of NSPE-Ohio and served as a director at the state level.

Each year—starting in 2026—one student will be selected to receive the Nilsson Family Scholarship, unless the

previous recipient renews their scholarship. (The award is renewable for up to three years, provided the recipient continues to meet eligibility requirements.)

In addition to the general criteria outlined in EFO's scholarship brochure, available at www.OhioEngineer.com, applicants must meet several specific requirements. Eligible candidates must reside in one of the following Ohio counties: Mahoning, Trumbull, Columbiana, Summit, Portage, or Stark. They must also be enrolled full-time in an engineering program at either the University of Akron or Youngstown State University.

Academic performance is an important consideration, and applicants must maintain a minimum GPA of 3.0 on a 4.0 scale (or equivalent), as verified by an official transcript from the student or their university. Students must have achieved freshman, sophomore, junior, or senior status at the time the scholarship is distributed. In addition, applicants will be assessed on their leadership experience, extracurricular involvement, work history, participation in professional and technical societies, and any honors or awards received.

However, it should be noted that demonstrated financial need is a central criterion in the selection process. The Nilsson Family Scholarship has been tailored to identify and support students who have tremendous potential but no reasonable expectation of attending college due to funding limitations. By prioritizing candidates whose potential might otherwise go unrealized due to economic hardship, the scholarship aims to transform barriers into opportunities.

Through this new EFO scholarship, the Nilsson family will continue to inspire future generations of engineers to lead with purpose and a commitment to service.



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ODNR restores Maumee River islands for clean water



Photo credit: ODNR

ODNR Director Mary Mertz joined federal, state, and local partners September 15 to mark completion of the Clark Island and Delaware/Horseshoe Island restoration on the Maumee River. Supported by \$8.7 million from Governor DeWine's H2Ohio Initiative, engineers rebuilt eroded islands with rock and natural structures. The project improves water quality, reduces erosion, restores critical habitat, and demonstrates how investing in natural infrastructure benefits Ohio's future.

DGL wins ACEC Ohio award for Sylvania bridge

DGL Consulting Engineers received ACEC Ohio's Outstanding Small Project award (2025) for its work on the Don Townsend Multi-Modal Gateway Bridge in Sylvania, Ohio.

In 2018, while inspecting the vehicular bridge, the pedestrian bridge was found to have significant failures. Inspections continued at accelerated intervals to ensure safety was maintained until both bridges could be replaced. A Structure Type Study was completed to identify alternatives and provide recommendations for the best replacement. In

2020, the City of Sylvania was awarded ODOT Municipal Bridge Funding, covering 95 percent of construction costs for the new structure.

The combined pedestrian/vehicular bridge considered ecological impacts, hydraulics of Ten Mile Creek, and utility concerns. DGL worked with the City of Sylvania to incorporate an overlook with decorative railings, benches, and a pilaster centerpiece. Upon completion, the pilaster was adorned with artwork and a plaque to honor Don Townsend, a long-time Sylvania high school art teacher.



Aerial view of the Don Townsend Gateway Bridge in Sylvania, Ohio—designed by DGL to enhance safety, ecological resilience, and community connection.



Reducing inflow & infiltration in combined sewer systems

Combined sewer systems, which transport both stormwater and sanitary sewage through the same set of pipes, have served Ohio municipalities for more than a century. While these systems were initially seen as an efficient solution, they now pose significant environmental and operational challenges. One of the most pressing issues is inflow and infiltration (I&I)—the undesirable entry of stormwater and groundwater into the sewer system. Excessive I&I can overload wastewater treatment plants, contribute to combined sewer overflows (CSOs), increase treatment costs, and lead to environmental degradation.

Addressing I&I requires a comprehensive approach that identifies sources of excess flow and implements both traditional and advanced solutions to stop it. Municipalities must leverage a combination of field investigations, engineering strategies, regulatory compliance efforts, and infrastructure improvements to manage I&I effectively. Learn more about best practices for identifying, mitigating, and preventing I&I while following the Ohio Environmental Protection Agency's (Ohio EPA) regulatory requirements.

Ohio EPA regulations regarding combined sewer infrastructure

The Ohio EPA regulates CSOs to protect public health, maintain water quality, and comply with federal environmental laws such as the Clean Water Act.

CSOs introduce harmful pollutants, including bacteria, viruses, nutrients, and toxic substances, into the environment. Such contamination poses serious risks to drinking water sources, recreational waters, and aquatic ecosystems. To mitigate these risks, the Ohio EPA enforces stringent policies to regulate CSOs and ensure municipalities comply with water quality standards. Some key regulations include:

- **Prohibition of new combined sewers:** The Ohio EPA restricts the construction of new combined sewer systems due to the environmental

risks they pose, encouraging separate storm and sanitary sewer networks instead.

- **National Pollutant Discharge Elimination System (NPDES) permits:** Municipalities with CSO discharge points must obtain an NPDES permit or Director's Final Findings and Orders (DFFOs) to monitor and control overflows.
- **Monitoring & compliance:** Cities must conduct regular CSO monitoring and submit reports detailing overflow occurrences, corrective actions, and compliance strategies.
- **Elimination of dry weather overflows:** CSOs are strictly prohibited during dry weather conditions. Municipalities must take necessary steps to prevent unauthorized discharges, ensuring compliance with Ohio EPA regulations.
- **Long-Term Control Plans (LTCPs):** Cities must develop LTCPs outlining strategies to reduce CSO occurrences and improve overall sewer system performance.

As part of NPDES permit conditions or LTCPs, the Ohio EPA may mandate I&I studies and corrective actions to reduce extraneous flows caused by I&I. By identifying and eliminating sources of I&I, municipalities can improve system performance, reduce the frequency of overflows, and better meet the pollutant loading limits outlined in their permits.

Understanding inflow & infiltration

Inflow and infiltration are distinct but interconnected issues.

- **Inflow** occurs when stormwater rapidly enters the sewer system through direct connections such as roof downspouts, sump pumps, or catch basins. This surge of water can lead to overwhelming flow volumes during heavy rainfall, increasing the likelihood of CSOs.
- **Infiltration**, on the other hand, is caused by groundwater seeping into the sewer system through cracks, pipe joints, or deteriorated infrastruc-

ture. This slow, persistent leakage contributes to higher base flow levels in the sewer system, increasing treatment costs and reducing overall efficiency.

Understanding these distinctions allows engineers and municipal agencies to design targeted interventions addressing specific sources of I&I.

Techniques for identifying & addressing I&I

Flow monitoring: Pinpointing problem areas

A robust flow monitoring program is essential for any I&I mitigation strategy. Engineers install temporary or permanent flow meters at strategic locations within the sewer network to track fluctuations in flow volume.

By comparing **dry-weather flow** (normal sanitary sewage levels) with **wet-weather flow** (including stormwater contributions), municipalities can identify problem areas where excess inflow or infiltration is occurring. Long-term flow monitoring data ensures cities allocate investigative resources efficiently, prioritizing remediation efforts in high-impact areas.

Smoke testing: Revealing improper stormwater connections

Smoke testing is a cost-effective technique for detecting inflow sources. A blower forces non-toxic smoke into sewer lines, and any smoke escaping from external structures indicates unintended connections.

Common inflow sources detected through smoke testing include:

- roof downspouts directly connected to the combined sewer system
- stormwater catch basins mistakenly tied into sanitary lines
- cracked lateral cleanouts allowing surface runoff to enter the sewer system

See "Reducing I&I," page 7

Smoke testing is often conducted over wide areas to reveal problematic stormwater connections that require disconnection or redirection.

Dye testing: Confirming cross connections

Dye testing complements smoke testing by providing visual confirmation of stormwater inflow. A brightly colored, non-toxic dye is introduced into suspected inflow sources such as roof drains or driveway catch basins. Observers then monitor downstream manholes and sewer cleanouts to determine if the dye appears in the combined sewer system.

Dye testing is beneficial for verifying:

- illicit or undocumented stormwater connections to sanitary sewers
- basement sump pumps and foundation drains linked to combined sewers
- cross connections between separate storm and sanitary sewer systems

Closed-circuit television inspections: Identifying structural deficiencies

Closed-circuit television (CCTV) inspections provide an inside view of sewer pipes, allowing engineers to detect groundwater infiltration. Robotic cameras move through sewer lines, recording high-resolution images to identify issues such as:

- cracked or fractured pipes
- separated joints and displaced pipe segments
- root intrusions compromising structural integrity
- active groundwater seeping into the sewer system

CCTV inspections guide future rehabilitation efforts, such as pipe lining or full pipe replacements, ensuring sewer system longevity.

Strategies for resolving I&I

Eliminating cross connections

One of the most immediate strategies for reducing I&I involves disconnecting stormwater sources from combined sewers. Municipal actions may include:

- redirecting roof downspouts to pervious areas such as lawns or rain gardens

- ensuring sump pumps discharge into storm drains or designated drainage systems
- sealing stormwater catch basins that improperly connect to combined sewers

Public education campaigns are essential for gaining compliance from property owners, ensuring they understand regulatory requirements and the importance of proper drainage management.

Storm sewer installation

In areas with high inflow volumes, installing separate storm sewer networks may be necessary to divert stormwater independently from combined systems. Although costly, this approach significantly improves sewer system resilience by:

- directly capturing and discharging stormwater to appropriate water bodies
- reducing the burden on wastewater treatment plants
- ensuring compliance with Ohio EPA environmental regulations

Sewer & manhole rehabilitation

For infiltration issues, trenchless rehabilitation techniques provide long-term solutions. Modern lining technologies such as **cured-in-place pipe (CIPP) lining** reinforce aging sewer pipes, creating a seamless barrier to prevent groundwater entry.

Similarly, manhole rehabilitation methods, including **epoxy coatings, cement liners, and grouting**, seal infiltration points, ensuring structural integrity at key junctions within the sewer system.

Benefits of a comprehensive I&I reduction plan

A holistic I&I reduction approach provides substantial benefits, including:

- lower wastewater treatment volumes, reducing operational costs
- fewer CSOs, leading to improved environmental protection
- enhanced water quality in local rivers and streams
- increased sewer system capacity to accommodate future urban growth

Integrating detection, rehabilitation, and regulatory compliance ensures long-term system efficiency and sustainability.

When I&I can't be mitigated

High-rate treatment is an effective solution for eliminating combined sewer overflows (CSOs), particularly in cases where traditional methods have proven ineffective or impractical. While the strategies outlined here can mitigate CSOs, these approaches may be constrained by cost, space, or feasibility.

High-rate treatment offers a viable alternative by rapidly processing excess flow during peak wet-weather events. Using advanced filtration and chemical treatment processes, this method can remove pollutants and pathogens from overflow discharges before releasing treated water into the environment. Its compact design allows for implementation in urban areas where space is limited, and its ability to handle fluctuating flow rates makes it a flexible solution for municipalities struggling with CSO management.

By integrating high-rate treatment into wastewater systems, communities can enhance water quality and comply with regulatory standards, even when other mitigation strategies are not viable.

Conclusion

As urban areas expand and infrastructure ages, addressing inflow and infiltration in combined sewer systems becomes increasingly important. By implementing a combination of flow monitoring, smoke testing, dye testing, CCTV inspections, and rehabilitation techniques, municipalities can effectively reduce I&I impacts while adhering to Ohio EPA regulations.

A proactive approach to sewer system management enhances operational performance, protects public health, and strengthens environmental stewardship. Investing in long-term solutions ensures that cities maintain resilient and sustainable wastewater infrastructure for generations to come.

Madelaine Fagrell is a professional engineer at American Structurepoint with seven years of experience designing wastewater collection system infrastructure. Fagrell is a project manager specializing in pump station design and inflow and infiltration (I&I) reduction. She has successfully led numerous projects focused on reducing I&I, guiding them from initial assessment through design and construction to help client communities achieve regulatory compliance.



How engineering ethics intersect with environmental justice in Ohio

Upholding public health & environmental equity in infrastructure design

In recent years, the national conversation around environmental justice has grown louder—and rightly so. Communities across the United States, including many in Ohio, have historically faced disproportionate environmental burdens due to their race, income level, or geographic location. While activism and policy reform often headline the discourse, one of the less visible yet critically important actors in this arena is the professional engineer.

From water treatment systems in rural townships to stormwater infrastructure in urban neighborhoods, engineers shape the physical world—and with it, the public's exposure to environmental risk. In Ohio, where legacy pollution, aging infrastructure, and socioeconomic disparities intersect, the ethical responsibility of engineers to advance environmental justice has never been more essential.

This column explores how engineering ethics and environmental justice intertwine, providing insight into the role of Ohio's engineers in promoting public health, equitable development, and environmental stewardship.

Environmental justice in Ohio

Environmental justice, as defined by the U.S. Environmental Protection Agency, is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development and enforcement of environmental laws, regulations, and policies.

Ohio's industrial legacy leaves a complicated footprint. From steel towns along the Mahoning River to coal mining regions in Appalachia and the heavily urbanized Lake Erie shoreline, the state is home to communities that

have been exposed to contaminated air, water, and soil. Additionally, many urban neighborhoods—particularly in Cleveland, Toledo, and Columbus—still live with the effects of industrial zoning and neglected infrastructure.

In these areas, environmental justice isn't a distant policy goal—it's a daily challenge. And it is one that Ohio's engineers must rise to meet.

Engineering ethics & public health

Engineers are bound by a professional code of ethics that prioritizes public health, safety, and welfare. The National Society of Professional Engineers' Code of Ethics begins with a fundamental canon: "Hold paramount the safety, health, and welfare of the public."

When engineers design infrastructure—whether a stormwater system, bridge, landfill, or industrial facility—they are making decisions that directly affect air quality, water access, exposure to toxins, and neighborhood resilience. In underserved areas, these choices carry even more weight.

For example, a decision to place a combined sewer overflow outfall near a low-income neighborhood without community input may meet technical standards but still reinforce long-standing environmental injustices. Similarly, routing a highway through a historically underserved community without equitable alternatives can deepen health and economic disparities. These are not just planning issues—they are ethical questions with engineering consequences.

The ethical duty to engage communities

Beyond technical excellence, ethical engineering includes active community engagement. In Ohio, meaningful involvement with impacted communities is increasingly recognized as essential to ethical practice.

Too often, low-income or minority communities are left out of the infrastructure decision-making process, only

to bear the brunt of negative outcomes. Ethical engineers can help reverse this trend by ensuring that design processes include:

- early and inclusive stakeholder engagement
- accessible public outreach materials (e.g., multilingual or non-technical formats)
- transparency in risk and benefit communication
- willingness to adapt design based on community concerns

This level of engagement not only aligns with ethical obligations—it results in more sustainable and successful projects. For example, during the design of green infrastructure in Toledo's Junction neighborhood, engineers worked with residents to identify safe and visible sites for rain gardens and permeable pavements, boosting neighborhood ownership and maintenance support.

Environmental equity in infrastructure planning

Environmental equity goes beyond treating everyone equally—it means recognizing historical disadvantages and designing to correct them. In practice, this may include prioritizing investments in areas that have long been underserved or neglected.

In Ohio, cities like Cleveland and Dayton have begun integrating equity scoring into capital planning. Engineers working on public infrastructure projects are increasingly expected to consider:

- proximity to vulnerable populations
- air and water quality baselines
- access to green space or mobility infrastructure
- cumulative exposure to environmental hazards

For example, when replacing lead service lines in older neighborhoods, engineers must balance cost, technical feasibility, and equity. A purely

See "Engineering ethics," page 9

cost-driven replacement approach might favor areas that are easier or cheaper to retrofit—often skipping the very communities that need intervention most. Ethical engineering practices advocate for prioritizing the most at-risk populations, even when the solution is more complex or costly.

Case study:
Stormwater management in underserved neighborhoods

In 2023, the City of Columbus launched a neighborhood-scale storm-

water retrofit in the Hilltop area—an older, low-income part of the city prone to flooding and basement backups. Engineers were tasked with designing stormwater controls that reduced peak flows, enhanced water quality, and created public amenity space.

Instead of simply upsizing pipes, the engineering team explored alternative green infrastructure strategies. They collaborated with local nonprofits and residents to identify high-impact interventions, including tree trenches, porous alleys, and vegetated swales. The final design not only reduced runoff volumes but also provided community co-benefits: shade, improved aesthetics, and safer pedestrian routes.

This project highlights how engineers can go beyond minimum standards to deliver infrastructure that improves quality of life—particularly in communities historically overlooked.

Climate change, vulnerability & the engineer's role

Climate resilience is another critical intersection between engineering and environmental justice. In Ohio, climate change is expected to increase the frequency and severity of flooding, extreme heat, and winter storms—all of which disproportionately affect low-income populations and historically marginalized communities.

Engineers designing for climate resilience must consider who benefits and who is left behind. For example:

- Flood control projects that protect only affluent neighborhoods while allowing poorer areas to flood raise ethical concerns.
- Heat island mitigation strategies such as tree planting or cool pavements must include communities with the least existing canopy.
- Emergency power systems and shelters must be sited and accessible to those without the means to evacuate or recover.

Ethical engineering practice in the face of climate change means designing for inclusive resilience—where vulnerability, not just exposure, guides investment.

Education & professional development for ethical practice

As environmental justice gains prominence, Ohio's engineering community must ensure that the next

generation of professionals is equipped to meet these ethical challenges. This includes:

- integrating environmental justice into engineering curricula at Ohio universities
- providing continuing education on equitable infrastructure planning and stakeholder engagement
- collaborating with public health, planning, and social science professionals to inform holistic designs

Organizations like the Ohio Society of Professional Engineers play a pivotal role by promoting dialogue, supporting policy awareness, and offering ethical guidance tailored to the Ohio context.

The path forward: Ethics in action

Ohio's engineers stand at the forefront of decisions that can either perpetuate environmental injustice or help correct it. By holding public health and equity as paramount, engineers fulfill not just their professional obligations, but their societal duty.

Whether it's designing a rural water system, evaluating brownfield redevelopment, or planning transportation upgrades, ethical engineering means more than compliance—it means conscience. And it starts with asking the right questions:

- Who is impacted by this project?
- Have we engaged with those most affected?
- Are we reinforcing old patterns of injustice—or working to dismantle them?

In answering these questions, Ohio's engineers don't just build roads and pipes—they help build a more just and equitable future.

Dustin Doherty, PE, is a civil engineer and the principal of Decisive Dynamics, LLC. With more than 20 years of experience, he specializes in public infrastructure, utility design, and site development. He has led more than 65 projects for the Ohio Department of Rehabilitation and Correction and contributes regularly to engineering and environmental planning initiatives across Ohio. Doherty is a dedicated father and passionate advocate for community-centered design. When he's not leading engineering projects, he invests his time in mentoring young professionals, supporting local schools, and exploring the outdoors with his kids. His work blends technical expertise with a deep commitment to people and place.

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2025 All-Ohio Engineering Conference delivers timely CPD and professional recognition

The 2025 All-Ohio Engineering Conference, hosted by NSPE-Ohio President Rodney Wilson, PE, brought together engineers from across the state for three days of learning, recognition, and professional engagement. Held June 12–14, the event featured virtual CPD programming followed by in-person activities at Embassy Suites Dublin.

This year's theme, Join the Knowledge Nexus, emphasized the value of shared expertise and interdisciplinary collaboration. The Conference delivered 12 CPD hours through a series of one-hour seminars streamed June 12–13. Each session was selected to reflect current challenges and opportunities in engineering practice, with topics ranging from regulatory shifts to advanced technical applications.



< **Edward Fronapfel, MSCE, PE, FASCE, FNAFE**, of Charles Taylor Engineering Technical Services presented a forensic case study on CPVC water line failure, focusing on stress analysis, construction techniques, and material performance.

John Weidner, PhD, dean of the College of Engineering and Applied Science at the University of Cincinnati, presented on the DOE's H2@Scale initiative, highlighting hydrogen's role in sustainable energy and the challenges of scaling the hybrid-sulfur process for zero-emission production and storage.



< **John Sankovic, PhD, MBA, PE**, of Kent State University presented on Ohio's contributions to NASA's Artemis program, highlighting the work of 70 companies and engineers supporting lunar architecture—from the SLS rocket to the Orion capsule and Gateway station.

Nathaniel Kay, PE, of McNaughton-McKay Electric Company presented an overview of Industry 4.0, highlighting how smart technologies, data, and automation are transforming manufacturing through improved efficiency, connectivity, and innovation.



The CPD lineup included:

- **Ethics Seminar: Challenging Regulations: How Overturning the Chevron Decision Shifted the Balance of Power**
- **Forensic Analysis of a CPVC Water Line Failure**
- **Hydrogen at Scale**
- **Artemis: The Role of Ohio in Our Return to the Moon**
- **Major Updates to the 2024 Ohio Energy Code**
- **Industry 4.0: Technologies, Use Cases & Benefits**
- **Ethics Seminar: Navigating Complexities in Engineering Ethics & Standards**
- **Assessing Risk of Structure Damage Over Abandoned Coal Mines**
- **Micropiles**
- **Traffic Control Devices: Work Zones**
- **Geophysical Mapping of Buried Features**
- **Working Platform Designs on Saturated Subgrades**

The virtual format allowed engineers to participate from anywhere while maintaining a structured, professional experience. Sessions were led by subject-matter experts and included sponsor recognition and scheduled breaks.

Participants praised the format for its accessibility and efficiency. "The virtual format is very convenient and cost effective for me," one attendee noted. The ability to earn 12 CPD hours over two days was widely appreciated, with one participant commenting, "The conference covers a broad range of topics and is an efficient way to gain continuing education credits." Another added, "This is the best and easiest way to pick up a big chunk of PD hours. I look forward to joining once

per year at least for the rest of my career."

The range and quality of the sessions also stood out. As various participants said: "I liked the variety of subjects/content," "Timely topics and professional presentations," "Speakers packed a lot of information into the hour presentations," and "Real world case studies and forensic studies were very interesting."

Conference logistics and planning earned high marks. One participant remarked, "Well organized." Another said, "I liked the adherence to schedule." A third added, "Well planned and allowed some time between sessions."

The overall experience was described as a "Good cost/benefit ratio." Participants concluded, "Thank you for another fine production! Great job as always," and "Very professionally run conference."

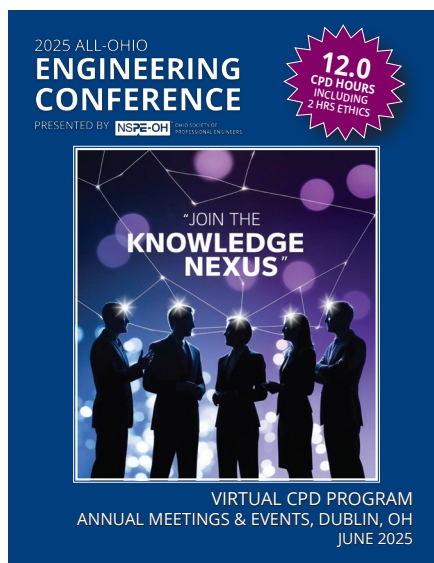
On Saturday, June 14, the in-person portion of the Conference featured the 2025 Awards Luncheon, where NSPE-Ohio and the Engineers Foundation of Ohio (EFO) recognized professional award winners, scholarship recipients, and student program honorees. The event was followed by annual meetings for both organizations, during which NSPE President-Elect **Julia Harrod, PE, FNSPE**, installed the incoming officers.



The day concluded with a casual dinner at MTM Tavern in Dublin, giving attendees a chance to reconnect and reflect on the event.

The Conference fostered meaningful peer-to-peer engagement. Attendees used in-person networking opportunities to exchange insights and build connections across disciplines. Participants found value not only in the virtual presentations but in the relationships that were fostered at the in-person event. This collaborative energy reflected the theme Join the Knowledge Nexus—a reminder that engineering progress is built not just on individual expertise, but on collective understanding.

NSPE-Ohio's leadership team thanks the speakers, sponsors, and volunteers who contributed to the success of the 2025 Conference. With a strong focus on relevant content and professional connection, this year's event reinforced the importance of continuing education and collaboration in advancing Ohio's engineering community.



PROGRAMS: CONFERENCE

Engineering Ethics in a Post-Chevron Era

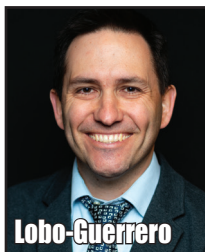
Rebecca Bowman, Esq., PE, DFE, presented "Challenging Regulations: How Overturning the Chevron Decision Shifted the Balance of Power," a session examining the Supreme Court's 2024 reversal of Chevron deference and its implications for engineering professionals. Drawing on her expertise in ethics, law, and forensic engineering, Bowman explained how the original Chevron standard shaped regulatory interpretation and the implications of the 2024 decision. She addressed the ethical obligations engineers must weigh when challenging regulations. Bowman, the former senior director of ethics and professional practice for NSPE, is the principal of a business providing civil engineering, dispute resolution, real estate, and legal services.

Ethics Seminar



Bowman

Sebastian Lobo-Guerrero, PhD, PE, DGE, the geotechnical project manager/laboratory manager for AGES, Inc., presented the latest advancements in micropile technology, highlighting innovations in design, construction, and inspection. Drawing on case studies and his expertise in geotechnical engineering, he demonstrated how micropiles are applied in complex foundation and stabilization projects, offering practical insights into evolving field standards.



Lobo-Guerrero

Deb McAvoy, PhD, PE, PTOE, an associate professor in civil engineering at Ohio University, shared strategies for temporary traffic control in work zones, emphasizing safety, signage, and signal planning. Drawing on her research in traffic engineering and agency experience, she outlined key components and practical applications for effective control. Her presentation addressed how temporary traffic control is used when normal traffic conditions are altered—such as during construction, incidents, or planned events—and emphasized the importance of designing control plans that account for driver behavior and operational constraints.



McAvoy

Kyle Shalek, PhD, a regional manager of geophysical services for Terracon Consultants, Inc., presented an overview of geophysical methods used to locate buried features prior to development, focusing on techniques such as ground penetrating radar and magnetometry. He discussed survey design, method limitations, and practical applications, drawing on his experience managing hundreds of geophysical projects nationwide. The session emphasized how geophysics can reduce delays and costs while improving site planning and risk mitigation.



Shalek

Abdolreza (Reza) Osouli, PhD, PE, the executive director of Marino Engineering Associates, explored the complexities of mine subsidence engineering, highlighting the causes of ground movement and methods for assessing structural risk. Drawing on his expertise in geotechnical investigation and subsurface analysis, he provided practical strategies for predicting subsidence and protecting infrastructure built over abandoned coal mines.



Osouli

Insights from the State Board

John Greenhalge, MBA, executive director of the State Board of Registration for Professional Engineers & Surveyors, led a seminar focused on licensure, digital protocols, and professional accountability. He offered practical guidance for navigating evolving standards and ethical obligations in engineering practice. The session addressed protocols for digitally signing plans, best practices for managing NCEES records, and lessons from investigations—emphasizing ethical accountability to clients and the profession.

Ethics Seminar



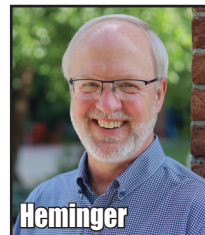
Greenhalge

James Elsey, PE, an engineer with Tensar, shared strategies for designing working platforms over saturated subgrades using mechanically stabilized layers (MSLs). He explained how MSLs improve performance and reduce section thickness, drawing on soil mechanics principles and case studies to highlight environmental and economic benefits. Elsey offered practical insights into testing methods, aggregate options, and effective stress behavior in challenging site conditions.



Elsley

Ned Heminger, PE, LEED AP, the executive VP of HAWA, Inc., presented key updates to the 2024 Ohio Energy Code, focusing on changes to prescriptive requirements, alternative compliance paths, and differences between ASHRAE 90.1 and IECC. Drawing on decades of experience—including leadership roles in multiple ASHRAE code cycles—Heminger offered insight into how evolving standards impact design decisions, regulatory compliance, and energy performance across Ohio's built environment.



Heminger



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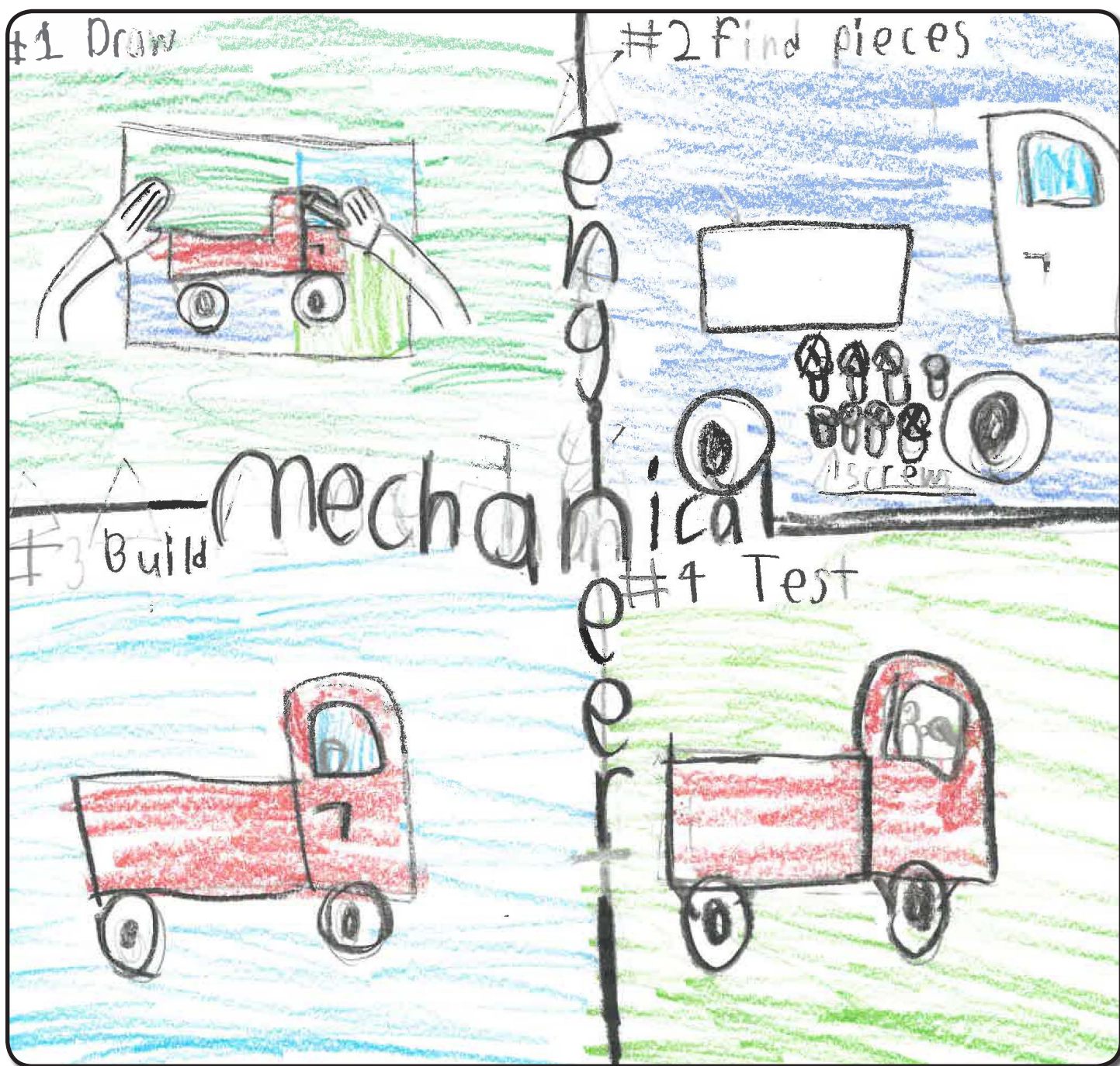
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2025 Imagine Engineering Coloring Contest: **James Owens' winning entry highlights mechanical engineering workflow**

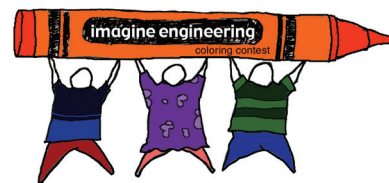


James Owens
St. John's, Marysville
(1st place winner)



Record-breaking 10,030 second graders register for Ohio's Imagine Engineering program

Marysville's James Owens wins first place in statewide contest



With 10,030 second graders registered statewide—a new record for the Imagine Engineering program—**James Owens** of Marysville emerged as this year's first-place winner. A second grader at St. John's School, Owens received the top prize—a telescope—at a special awards luncheon in Dublin, Ohio, in June. His four-panel drawing showcases his understanding of mechanical engineering work, including drawing plans, selecting the right materials and parts for the project, building the design, and testing the product.

Celine Piening, a second grader at Minster Elementary School, placed second in the contest for her vibrant artwork celebrating three engineering disciplines: robotics, civil engineering, and aerospace engineering. Piening received the second-place prize—a hand-held digital microscope—for her achievement.



Celine Piening
Minster Elementary School
(2nd place winner)

Harshiv Ram Ballamurugan, a second grader at Mason Early Childhood Center, placed third in the contest. Ballamurugan was recognized for his detailed drawing

depicting a mechanical engineer at work in an automotive workshop, building a car prototype. His artwork highlights the engineer's role in designing, developing, and delivering products, and he captioned his drawing with: "I dream to become a mechanical engineer." For his achievement, he received the third-place prize—a National Geographic Mega Science Lab with 75 STEM experiments.



Harshiv Ram Ballamurugan
Mason Early Childhood Center
(3rd place winner)

The Engineers Foundation of Ohio founded the Imagine Engineering program and coloring contest in 1999. Since that time, EFO's partner, NSPE-Ohio, has enlisted its chapter members statewide to visit local classrooms and explain to second graders what engineers do for a living. Over the years, sponsors such as the American Electric Power Foundation have supported the program's growth.



In 2021, EFO introduced an educational video for Imagine Engineering

featuring Ohio engineers—members of NSPE-Ohio—highlighting the basic concept of design and demonstrating classroom-friendly experiments. In 2023, with support from a grant provided by the P&G Fund, EFO produced a Spanish translation of the video.

NSPE-Ohio members continue to actively support the program by visiting second-grade classrooms to engage students in dynamic conversations about engineering and to answer their questions.

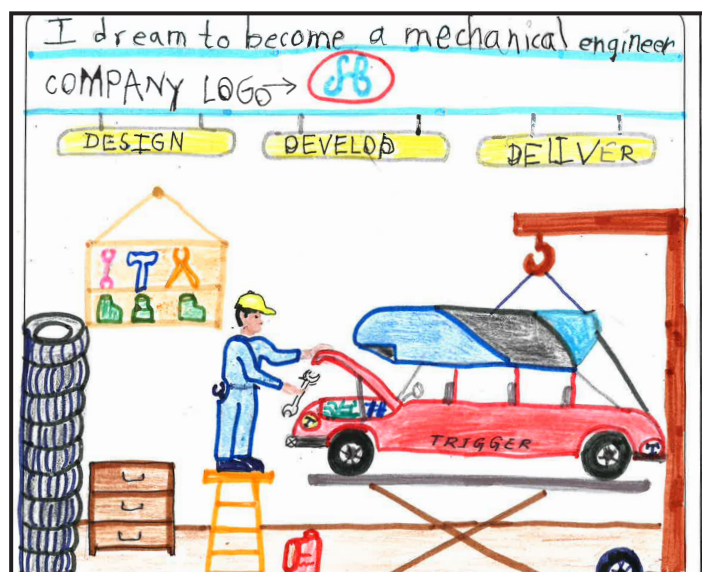
"Imagine Engineering is a children's program that is unique to Ohio, having been created by EFO in the late 1990s," said EFO President Scott Dilling, MSME, PE. "Over the last quarter of a century, Imagine Engineering has helped ignite the imaginations of tens of thousands of children statewide, encouraging them to focus on math and science—and perhaps a career in engineering."

The video was GREAT!!! We had them fill out our career exploration sheets and it was a wonderful addition to the learning. I think the paper airplanes were the highlight though!"

— Teacher, Ravenna, Ohio
Regarding Imagine Engineering



Minster second grader Celine Piening won second place for artwork featuring robotics, civil, and aerospace engineering.



Harshiv Ram Ballamurugan, second grader at Mason Early Childhood Center, illustrated a mechanical engineer prototyping a new car design.

Two Ohio leaders named NSPE Fellows

In 2025, Ohio leaders Aurea L. Rivera, PE, PMP, PMI-ACP, and Travis L. Rhoades, PE, were named Fellows of the National Society of Professional Engineers, representing two of just seven honorees nationwide. The Fellow designation (FNSPE) is NSPE's highest volunteer honor, recognizing

members who have held elected office and contributed actively at the national level. Rivera and Rhoades were celebrated for their exemplary service to the engineering profession, the Society, and their communities. Rivera is NSPE's newly installed Central Region director, and Rhoades serves as chairman of NSPE's Board of Ethical Review.



Aurea Rivera, PE, FNSPE, PMP, PMI-ACP, (center) receives her Fellow designation from NSPE President-Elect Julia Harrod, PE, FNSPE, and NSPE-Ohio President Rodney Wilson, PE.



Travis Rhoades, PE, FNSPE, (right) receives his Fellow designation from NSPE-Ohio Past President Dennis Irwin, PhD, PE, FNSPE.

Launching a legacy



Nils "Rik" Nilsson, PE, FNSPE (left), presents an oversized check to Engineers Foundation of Ohio President Joe Cherry, PE, FNSPE (right), establishing the **Nilsson Family Scholarship Fund**. The \$1,500 award will support the scholarship's first-ever recipient—an aspiring engineer from Northeast Ohio with demonstrated financial need. Dedicated to the memory of Rik's father, Vincent Nilsson, PE, the fund honors the family's long commitment to education and service. Nilsson presented the inaugural check to President Cherry this summer in Toledo.

NSPE-OH[®] OHIO SOCIETY OF PROFESSIONAL ENGINEERS

WELCOME, NEW MEMBERS

Welcome to these new NSPE-Ohio members from May 7, 2025, through September 28, 2025:

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Canton Regional Chapter

Justin Lee Butts

Nicholas Theiss

Leroy Wertz

Dayton Chapter

Brijaye Eaddy

Michael Gonzalez-Casiano

Isabella Howell

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Ashwini Rathnapuram

Kaden Semlow

Ryan Wilson

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Mostafa Elnaggar

Natalie Martin

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Victor Rolfsen

Brian Santiago-Garcia

Andrew Turner

Toledo Regional Chapter

Alex W. Kruger, PE

Jacob Miller, PE

Sheikhameed Sikkandhar, PE

Scott Suntum

Jackson Walsh

I greatly appreciate being chosen to be a recipient of your scholarship. This will be used within my education to become a structural engineer. I am going to be studying civil engineering in the fall at the University of Cincinnati. This will allow me to pursue my dreams of becoming a structural engineer. In this field I will change the future in infrastructure and try my best in all I do. Thank you very much.

— John Jacob, Cleves, Ohio

2024-2025 Recipient, Joe Niedecken, PE,
"Pay It Forward" – University of Cincinnati –
Memorial Scholarship

Ohio climbs to number 5 in CNBC's 2025 rankings

CNBC's "America's Top States for Business" rankings for 2025 placed Ohio fifth overall, up from seventh in 2024. Ohio rose to No. 1 in infrastructure after CNBC strengthened metrics for power and data capacity, the report said. The state also ranked second in cost of doing business, sixth in technology and innovation and seventh in access to capital and cost of living, while finishing in the 20s for economy, business friendliness and education and 31st for workforce.

"These rankings aren't surprising, they are encouraging," said Steve Stivers, president and CEO of the Ohio Chamber of Commerce.



Ohio PEs earn 4 CPD hours at 2025 Legislative Day focused on policy, aviation, infrastructure & energy

On April 25, 2025, hundreds of professional engineers earned 4.0 CPD hours at Ohio Engineers Legislative Day, hosted virtually by NSPE-Ohio with support from the IEEE Columbus Section. The program featured timely sessions focused on



public policy, infrastructure, aviation, and energy.

State Senator Louis W. Blessing III, PE, Ohio's only professional engineer legislator and a member of NSPE-Ohio, provided updates on legislation from the 136th General Assembly that impacts professional engineers. Sydney Sanders of Governmental Policy Group, Inc., presented on Ohio's administrative rulemaking process, explaining the role

of the Joint Committee on Agency Rule Review (JCARR) and how engineers can engage with executive agencies.

Phil Yoder, retired NetJets captain and aviation professor, analyzed the recent mid-air collision in Washington, DC, highlighting human factors, airspace regulations, and policy implications. Assistant Chief Matthew Flagler of Cincinnati's Emergency Management detailed the collaborative response and reconstruction efforts following the I-471/Daniel Carter Beard Bridge fire. Hassan Hayat of American Electric Power explored transmission network challenges and planning strategies to support the growing demand from data centers.

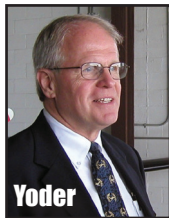
Together, these sessions underscored the vital role engineers play in shaping Ohio's policies, infrastructure, and future.



< **Travis Rhoades, PE, FNSPE**—principal and Toledo transportation practice lead at Civil & Environmental Consultants, Inc.—served as emcee for Legislative Day. He is NSPE-Ohio's vice president of legislative and government affairs, chairs its ethics committee, and serves on the NSPE Board of Ethical Review.



< **State Senator Louis W. Blessing, III, PE**, discussed fuel tax indexing, hybrid and EV registration fees, construction inflation, and emerging policy conversations relevant to Ohio's county engineers.



< **Phil Yoder**, an aviation instructor at Ohio University and retired NetJets captain with more than 50 years of flight experience, examined the January 29, 2025, mid-air collision over Ronald Reagan Washington National Airport (DCA), in which 67 people aboard two aircraft were killed. He addressed the circumstances surrounding the incident, relevant regulations, airspace design, compliance issues, the history of proximity alerts, distinctions between military and civilian procedures, and the broader political context.



Sydney Sanders, director of policy and communication at Governmental Policy Group, discussed Ohio's rulemaking process under Chapter 119 of the Ohio Revised Code and the five-year review requirement overseen by JCARR. She also described how NSPE-Ohio engages in the rule-review process by submitting public comments on select regulations relevant to the engineering profession.



Matthew Flagler, assistant fire chief for the City of Cincinnati, discussed the I-471 bridge fire that occurred on November 1, 2024, which temporarily shut down a major commuter route between Kentucky and Ohio and led to an ongoing criminal investigation. He covered the bridge's background, the incident itself, interagency coordination during the response, and key lessons learned for future infrastructure emergencies.



Hassan Hayat, director of transmission planning at American Electric Power, presented on the challenges of integrating data centers with the electrical grid. He addressed capacity constraints, grid stability, interconnection complexities, and planning strategies to support reliable, efficient transmission network design.



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by Travis L. Rhoades, PE, FNSPE, Vice President, Legislative & Government Affairs,
Ohio Society of Professional Engineers



From policy to impact: NSPE-Ohio's legislative achievements & vision

As I wrapped up my second year as vice president of legislative and government affairs for NSPE-Ohio this past June, I realized that I feel increasingly at home in this role. Over the past year, our policy review team—made up of Holly Flanigan, Sydney Sanders, and me—has worked to improve communication and respond more swiftly to legislative developments. Our shared goal remains clear: to keep NSPE-Ohio members informed and empowered as we navigate the evolving public policy landscape.

The Legislative and Government Affairs (L&GA) Committee remains steadfast in its mission to advocate for the professional engineering license as a critical safeguard for public safety in Ohio. We're fortunate to work alongside the lobbying team at Governmental Policy Group (GPG), including Sydney and her colleagues, whose advocacy and expertise have been vital in advancing our legislative priorities. On behalf of the L&GA Committee, I extend sincere thanks to GPG for its continued support.

A notable legislative achievement from last year was our work on House Bill 497 (135th Ohio General Assembly). This bill aimed to streamline procedures for county officials, including engineers. NSPE-Ohio, in collaboration with the County Engineers Association of Ohio (CEAO), raised concerns about a provision that would have allowed specific county projects with an estimated professional design cost of \$25,000 or less to bypass the requirement for a licensed profession-

al engineer or architect. I met with representatives from CEAO and the Delaware County Commissioners to better understand the bill sponsor's intent behind this legislation.

Through these conversations, we discovered that the goal was to ease administrative burdens associated with minor maintenance projects for county officials. With GPG's help, we negotiated revised language that preserved the role of the professional engineer where appropriate, while still allowing flexibility for basic upkeep.

The final version of the bill removed the contract value reference and further defined minor repair projects, thereby clarifying the provision's intent. This outcome reflects successful collaboration and a legislative win for both public safety and effective governance.

The 136th Ohio General Assembly began in January this year, and we've remained vigilant, especially regarding the state's operating and transportation budgets for fiscal year 2026-2027.

One exciting development in House Bill 54, the transportation budget, was the creation of a new Pavement Selection Process Advisory Council within the Ohio Department of Transportation (ODOT). As written, the legislation designates one of seven seats on the council for an NSPE-Ohio member. We submitted a strong slate of nominees to President Rodney Wilson, PE, for the council appointment.

Ultimately, ODOT appointed **Curtis Roupe, PE**, to serve as NSPE-Ohio's representative on the advisory council. We're confident in the expertise Curt—an associate vice president at Verdantas—brings to this significant advisory body.



Beyond legislative tracking, L&GA continues to prioritize member education. This year's Ohio Engineers Legislative Day, co-hosted by IEEE Ohio, was held virtually and offered 4.0 CPD hours. The strong attendance reaffirmed its value as a forum for policy discussion and professional development.

In addition to my L&GA role, I continue to serve as chair of the NSPE-Ohio Ethics Committee. Our focus remains on delivering timely, relevant education on ethical engineering practices grounded in Ohio law and national codes.

I am also proud to be the new chairperson of the NSPE Board of Ethical Review. In this role, I help shape national guidance on emerging ethical challenges and uphold professional standards across the field. I welcome member input and look forward to continuing to provide trusted ethics education.

Looking ahead, the need for vigilance and engagement remains strong. The professional engineering license continues to face challenges at both the state and national levels. We must stay proactive—not only defending against threats but also communicating the public value of licensure and the essential role of licensed engineers in protecting lives, infrastructure, and the environment.

In closing, I want to thank the NSPE-Ohio Executive Committee, the L&GA Committee, GPG, and our broader membership. Your dedication makes our advocacy possible. Together, we protect the integrity of our profession and the safety of the public we serve.

I encourage every member to stay engaged, speak up when it matters, and continue supporting our shared mission to uphold the engineering profession in Ohio.

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136th Ohio General Assembly: Bills monitored by NSPE-Ohio

ELECTRIC SERVICE LAW CHANGES, House Bill 15 (Klopfenstein)	To amend the competitive retail electric service law, modify taxation of certain public utility property, & repeal parts of House Bill 6 of the 133rd General Assembly.	<u>Status:</u> 5/15/2025 - SIGNED BY GOVERNOR; eff. 8/18/25
CREATE WATER IMPROVEMENT DISTRICTS, House Bill 49 (Claggett)	To allow for the creation of water improvement districts.	<u>Status:</u> 4/9/2025 - House Natural Resources, (1st Hearing)
TRANSPORTATION BUDGET, House Bill 54 (Stewart)	To make appropriations for programs related to transportation for the biennium beginning 7/1/2025 & ending 6/30/2027 & to provide authorization & conditions for the operation of those programs.	<u>Status:</u> 3/31/2025 - SIGNED BY GOVERNOR; eff. 3/31/25
REVISE, STREAMLINE OCCUPATIONAL REGULATIONS, House Bill 59 (Fowler, Hiner)	To revise & streamline the state's occupational regulations.	<u>Status:</u> 2/12/2025 - Referred to Committee: House General Government
ODOT RESPONSIBILITIES-HIGHWAYS IN VILLAGES, CITIES, House Bill 83 (Ferguson, McClain)	To clarify & amend the laws related to the Director of Transportation's responsibilities for state highways located in villages & cities.	<u>Status:</u> 5/20/2025 - House Transportation, (3rd Hearing)
RESTORE CLEAN OHIO FUND, House Bill 93 (Hall, Sweeney)	To restore the Clean Ohio Fund to be administered by the Department of Development & the Clean Ohio Council.	<u>Status:</u> 5/20/2025 - House Finance (1st Hearing)
TAX EXEMPTION-PROJECTS IN PORT AUTHORITY AREA, House Bill 147 (Lorenz)	To exempt from sales & use tax building materials sold to a contractor under a contract valued at \$25 million or more for projects in areas with a port authority.	<u>Status:</u> 5/28/2025 - SUBSTITUTE BILL ACCEPTED, House Development, (1st Hearing)
SURPLUS REVENUE ALLOCATION-ROADS, BRIDGES, House Bill 151 (Stephens)	To allocate a portion of any state revenue surplus to a program that funds certain road & bridge projects.	<u>Status:</u> 5/20/2025 - House Transportation, (1st Hearing)
CREATE MANUFACTURING TECHNOLOGY ASSISTANCE GRANTS, House Bill 159 (Santucci, Demetriou)	To create the manufacturing technologies assistance grant program & to make an appropriation.	<u>Status:</u> 5/20/2025 - House Technology & Innovation, (3rd Hearing)
ESTABLISH CARBON CAPTURE REGULATION PROCESS, House Bill 170 (Robb, Peterson)	To establish a process to regulate carbon capture & storage technologies & the geologic sequestration of carbon dioxide for long-term storage.	<u>Status:</u> 6/18/2025 - SUBSTITUTE BILL ACCEPTED, House Natural Resources, (4th Hearing)
CREATE UNIVERSAL REGULATORY SANDBOX PROGRAM, House Bill 176 (Fischer, Lorenz)	To create a regulatory relief division within the common sense initiative office & to establish a universal regulatory sandbox program.	<u>Status:</u> 6/3/2025 - House Government Oversight, (2nd Hearing)
LAW MODIFICATIONS-EXCAVATION REQUIREMENTS, House Bill 227 (Robb Blasdel, Johnson)	To modify excavation requirements.	<u>Status:</u> 6/4/2025 - SUBSTITUTE BILL ACCEPTED, House Commerce & Labor, (4th Hearing)
STATE-FUNDED PROJECTS-AMERICAN IRON, STEEL, House Bill 284 (Hiner, White)	To require iron or steel that is produced in the United States be used on projects supported by state funds.	<u>Status:</u> 6/18/2025 - House Development, (2nd Hearing)
TIMELY PAY REQUIREMENT-PRIVATE CONSTRUCTION, House Bill 288 (Roemer, Sweeney)	To require owners of private construction projects to timely pay contractors.	<u>Status:</u> 6/17/2025 - REPORTED OUT, House Small Business, (4th Hearing)
ESTABLISH COMMUNITY ENERGY PROGRAM, House Bill 303 (Ray, Hoops)	To establish the community energy program & pilot program & to define electricity measurement in alternating current.	<u>Status:</u> 5/28/2025 - Referred to Committee: House Energy
ESTABLISH LEAD LINE REPLACEMENT PROGRAM, House Bill 307 (Jarrells, Robb Blasdel)	To establish a program regarding lead service line replacement & to name this act the Lead Line Replacement Act.	<u>Status:</u> 6/11/2025 - House Development, (1st Hearing)
COMPUTER REGULATION, AI RISK MANAGEMENT, House Bill 392 (Fischer, Demetriou)	To limit further regulation of certain computational systems, require risk management policies for AI-controlled critical infrastructure, & to name this act the Ohio Right to Compute Act.	<u>Status:</u> 7/7/2025 - Introduced
LAW CHANGES-PUBLIC UTILITIES, Senate Bill 2 (Reineke)	Re public utilities law, to make changes regarding utility tangible personal property taxation, & to repeal parts of House Bill 6 of the 133rd General Assembly.	<u>Status:</u> 3/26/2025 - Referred to Committee: House Energy
MAKE CHANGES-BUILDING INSPECTIONS, Senate Bill 6 (Roegner)	To make changes to the law relating to building inspections.	<u>Status:</u> 7/1/2025 - SIGNED BY GOVERNOR; eff. 9/30/25
MAKE CHANGES-PUCO NOMINATING COUNCIL, PROCESS, Senate Bill 99 (Hicks-Hudson, Demora)	To make various changes to the Public Utilities Commission nominating council & nomination process.	<u>Status:</u> 3/5/2025 - Senate Public Utilities, (1st Hearing)
REGULATE CARBON CAPTURE, STORAGE TECHNOLOGY, Senate Bill 136 (Schaffer, Chavez)	To establish a process to regulate carbon capture & storage technologies & the geologic sequestration of carbon dioxide for long-term storage.	<u>Status:</u> 3/19/2025 - Referred to Committee: Senate Energy
REGULATE UNDERGROUND MINING-LIMESTONE, DOLOMITE, Senate Bill 181 (Wilkin)	To establish regulations for the underground mining of limestone & dolomite & to increase certain severance tax rates.	<u>Status:</u> 6/17/2025 - Senate Agriculture & Natural Resources, (4th Hearing)
CHANGE LAWS-OIL, GAS WELLS, Senate Bill 219 (Landis)	To make changes to the law governing oil & gas wells.	<u>Status:</u> 6/11/2025 - Referred to Committee: Senate Energy

* This is a partial list of the bills that NSPE-Ohio is tracking in the 136th Ohio General Assembly.



No. 1

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