Federal Funds Directed to Brandon Wastewater Plant

The town of Brandon, in Rutland County, has received a $3.78 million loan and a $1.75 million grant from the US Department of Agriculture to rehabilitate its wastewater treatment plant, which had been fined by the state for polluting the Neshobe River in 2018, reports the Sun. Improvement will include decommissioning an abandoned flow measurement structure, implementing a facility-wide SCADA system, replacing gas-detection sensors, and refurbishing electrical, HVAC, and lighting systems. The plant serves roughly 3,900 people and 300 businesses.

The USDA is investing $307 million to modernize rural drinking water and wastewater infrastructure in 34 states and Puerto Rico, according to Water & Wastes Digest. The money will be aimed at 96 projects that address drinking water quality, storm water improvements, and water and wastewater improvements.

Broadband Takes Another Step Down a Very Long Road

Vermont has taken another step in its “seemingly endless pursuit of universal access to high-speed internet service,” reports Vermont Business Magazine. A new law creates a board that will award grants to build out a telecommunications network that will provide 100 megabit-per-second download and upload speeds. Building the required infrastructure will cost about one billion dollars, or roughly $1,500 for every resident of the state. While fiber-optic technology can future proof the system, putting the fiber-optic cable down Vermont’s innumerable back roads will be costly and borrowing the money will be difficult.

Stay up to date on legislative issues through the NSPE Advocacy Center.

Have You Registered for Virtual PECon 2021?

With sessions on leadership, innovation,
diversity, ethics, time management, and more, there is a session for everyone at the 2021 Virtual Professional Engineers Conference (Aug 3-5). The early bird registration rates end after today (July 14).

You won’t want to miss out on the keynote speakers, networking with your friends and peers in Coffee Chats, solving everyday problems in MasterMind sessions, and PE Day (August 4). Here’s a peek....

- **Managing Up, Out and Within** (Stephanie Buckingham and Paula E. Miles, P.E.)
- **Cyber-attacks and Resilience** (James Livermore and Dave Ubert)
- **NSPE Engineering Excellence Awards**
- **Mars Is a Harsh Mistress (So is the Moon)** (George Hamilton, P.E., F.NSPE)
- **Delegation: How to Manage the Monkeys on Your Back** (Shelley Rowe, P.E.)

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**Iowa Approves PE Exam Before Experience**

PE license candidates in Iowa will have the opportunity to take the PE exam prior to meeting the four years of experience requirement.

Legislation (H.F. 284) signed by Governor Kim Reynolds in April eliminates the requirement that applicants for a professional engineer license must show necessary practical experience in engineering work prior to taking the PE exam. The bill does not alter other experience requirements for applicants.

Individuals applying for licensure in Iowa should access the Iowa Engineering and Land Surveying Examining Board [website](#) for updates on implementation of the rule change.

In states that have “decoupled” the experience and examination requirements, applicants are still required to complete all education, examination, and experience requirements before being granted a PE license.

NSPE believes that licensing boards should provide the option of taking the PE exam as soon as applicants for licensure believe they are prepared to take the exam and have passed the FE exam. Applicants, upon passing the exam, should not be eligible for licensure before meeting all other jurisdictional requirements.
Can the Engineering Profession Achieve Racial Equity?

Engineering occupations are some of the highest-paying and most prestigious in the US labor market, but they are also some of the least diverse. A new report from the Georgetown University Center on Education and the Workforce finds that between 1990 and 2019, the total number of Black/African American and Latinx students who graduated with a bachelor’s degree in engineering increased nearly fourfold, but there is still far from equitable representation.

Over the same time period, the Latinx share of bachelor’s degrees in engineering increased from 3% to 13%, while the Black/African American share held steady at 4%. At this pace, achieving racial equity in engineering on par with population share would take 76 years for Latinx and Black/African American workers as a group and up to 256 years for Black/African American workers alone.

“How having a career in engineering means you’ve made it,” said Anthony Carnevale, CEW director and report lead author in a statement. “While it’s a marker of climbing the wage and status occupational pyramid, it’s also a social indicator of progress on racial and gender justice.”

The report addresses how Black and Latinx are underpaid in a profession that pays very well. A person with an engineering bachelor’s degree (and no graduate degree) earns 25% more on average than the typical bachelor’s degree holder in the first job after graduation.

However, as with almost all fields, Black/African American and Latinx workers earn less than the average. While White and Asian workers with a bachelor’s degree in engineering earn 61% and 71% more, respectively, than the average for all bachelor’s degree holders, Black/African American and Latinx engineering majors earn just 15% and 18% more, respectively. To attain earnings comparable to those of White engineering majors, Black/African American or Latinx engineers must earn an additional degree beyond the bachelor’s degree.

The report authors emphasize that it shouldn't take decades or centuries to ensure diversity in the engineering workforce mirrors diversity in society. It will take a comprehensive, committed, and innovative approach from employers and universities to close the gap.
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