



CHAngemaker Jay Wolverton, PE

Making the Grade: Infrastructure Solutions

Every four years, the American Society of Civil Engineers (ASCE) releases its “Report Card for American Infrastructure.” After decades of “Ds,” the report card is finally showing a slight improvement, but 2021’s overall C- is still not something to celebrate. Unfortunately, some of the lowest scores on the report card represent some of the most critical infrastructure in our county – the infrastructure we depend on to work, play, and live productive lives.

Let’s examine the grades in three important areas:

Transportation:

Bridges: C
Roads: D

Water:

Stormwater: D
Wastewater: D-
Drinking Water: C-

Energy:

Energy: C-

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Overall, these grades are disappointing and tell us that significant improvement is still needed. If my son or daughter brought home this report card from school, I would have many questions and demand some explanations. Crumbling infrastructure impacts our daily lives – it could be a longer commute, goods not reaching their destination in time, boil water advisories, no water, sewage overflows, power grid outages, or inadequate broadband to support school and work. The time has come to make investments and plans to make our infrastructure support the lives we want to live. As a civil engineer, I’m ready to be part of the solution.

Affordable, reliable transportation is essential to us. We need safe, well-maintained roads and bridges to move people and goods. According to ASCE, 42 percent of the bridges in the U.S. are at least 50 years old and 7.5 percent are considered structurally deficient, which means they are in poor condition. When you add to that the poor or mediocre condition of 43 percent of our public roadways, we have a clear call to action to start prioritizing rehabilitation and needed improvements.

Water is the lifeblood of our daily lives. Without clean drinking water and adequate wastewater and stormwater management systems, we face messy disruptions to our households and businesses. ASCE notes that our aging and underfunded water system results in a water main break every two minutes, but progress is being made including 12,000 miles of new water pipe across the country in 2020, together with advanced technology and asset management to help monitor systems and plan capital and maintenance investments. Resilient systems of the future will be dependent on our ability to replace aging infrastructure at a much faster pace and employ the most robust technology available to monitor issues in real-time.

Readily available energy is something we have taken for granted in the past, but aging infrastructure and more severe and frequent weather events have uncovered the weaknesses in the system. We now have an opportunity to efficiently use capital expenditures to prioritize multi-value projects that replace aging or obsolete infrastructure with new technology that is more resilient to weather elements and supports the interconnection to renewables including solar and offshore wind. The past year has also opened our eyes to the necessity of broadband coverage, and this has become a major focus as we expand coverage to rural areas and strengthen the grid.

I'm heartened to see a slight improvement in the grades of 2021. I'm also energized to do more to make sure those grades continue to climb. Our team can and will directly impact each of these sectors, and we personally feel a sense of responsibility to do better than we've done in the past. Together with our clients, we will remain committed to working with communities, counties and states to deliver sustainable solutions that responsibly improve the world we live in and make lasting and substantial impacts to the infrastructure we are charged with designing, building and maintaining.

About ASCE: The American Society of Civil Engineers, founded in 1852, is the country's oldest national civil engineering organization. It represents more than 150,000 civil engineers in private practice, government, industry, and academia who are dedicated to advancing the science and the profession of civil engineering, and protecting public health, safety, and welfare. For more information, you can read the [2021 Report Card for America's Infrastructure](#).

About the Author: Jay Wolverton, PE, Executive Vice President and Chief Growth Officer for CHA Consulting, Inc. (CHA), provides strategic oversight and direction for market leaders, business development, and corporate marketing with a focus on the significant growth anticipated for the company. Prior to joining CHA, Jay was the founder and CEO of Wolverton & Associates, which was acquired by CHA in June 2019 and has been fully integrated and rebranded as CHA. Jay has more than 35 years of engineering and leadership experience and is a licensed Professional Engineer in 32 states. You can reach Jay at JWolverton@chacompanies.com.



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