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Turning an infrastructure plan into a reality By Gen. (ret) J. Richard Capka

The White House’s proposed \$1.5 trillion infrastructure plan puts a long-overdue spotlight on the country’s infrastructure needs. Success with policy is especially important given the recent “D+” that the American Society of Civil Engineers gave to the overall state of U.S. infrastructure.

Under the Trump administration’s plan, about \$200 billion would come from federal funds while the rest — more than 80 percent of total funding — would come from state, local, tribal and public-private partnership (PPP) sources. Importantly, the plan also outlines several areas for policy adjustments and objectives for streamlining the federal environmental review and approval process in order to make investments easier to deploy.

For Congress and the administration, the most important next step is to take advantage of the bipartisan agreement that successful infrastructure investment enjoys. Achieving successful infrastructure attention is challenging. I spent nearly 40 years involved with infrastructure requirements from the local to national levels, first with a career in the U.S. Army Corps of Engineers and then in transportation with both a turnpike authority and the Federal Highway Administration.

For our nation’s plan to be sustainable, one reality is certain. We must, at all levels of involvement, be wise and efficient in the way we invest our infrastructure resources. What follows are a few specific guideposts for decisionmakers to consider as this process continues:

- “Infrastructure policy” is as much about more efficiently using current infrastructure as it is building new projects. Before we invest significantly to expand infrastructure capacity, we must ensure we are using current capacity most efficiently. Building new is not necessarily the answer for solving capacity issues. We must be able to balance infrastructure demand “peaks and valleys”, whether highway rush hour congestion or consumer generated spikes in energy demand. Technology deployment to facilitate telecommuting or to inform drivers and energy consumers can facilitate a better use of the existing infrastructure capacity. Not only will this reduce demand for resources, it will also avoid adverse effects associated with concrete and steel solutions.

- Solutions should have a sustainable design. Smart infrastructure policy must anticipate a project's potential to generate both positive opportunities and unintended consequences. Once in operation it is difficult and expensive to rework concrete and steel infrastructure, such as highways and dams. Sustainably designed new projects will ensure today's infrastructure solutions continue to efficiently serve their purpose throughout their lifetimes.
- Projects should be selected and developed based upon life-cycle costs. Operations and maintenance are significant infrastructure costs. The lack of adequate past investment in these areas is a major reason for our current challenges. We can do much to reduce future operations and maintenance requirements through deliberate advanced planning. Approving infrastructure projects based upon their entire life cycle costs rather than just their initial construction cost considerations, combined with better asset management planning can significantly reduce future costs. Innovation and rapid deployment of new technologies will be important to achieving desired life-cycle solutions.
- It is crucial to determine and program the right projects. Projects need to be prioritized based upon their contributions to system performance improvement. That requires the establishment of system performance standards, measurement of existing performance, and when failing to perform to standards, identification of remedies. Infrastructure performance metrics and means to measure performance are essential to proper programming. Decisionmakers must require such analysis before approving and allocating resources.
- Project delivery must become more efficient. Timely delivery is key to success. As an example, the administration's proposed effort to reduce the environmental process inefficiencies is an important undertaking. Not only do inefficiencies delay delivering a projects' benefits, they complicate the development of important funding strategies. Cost escalations and delayed access to project revenues for Public-Private Partnerships increase project uncertainties and risks. While there are immediate environmental process efficiencies to be captured, we must also recognize that achieving many other desired changes requires adjustments to laws that have been in place for decades. Importantly, today's projects cannot wait for these legal changes, which may not come for years, if ever. In the near term, the most pragmatic route to advancing infrastructure projects is to understand and be able address current environmental process requirements.
- Clearly, delineate roles and responsibilities. The funding and management of infrastructure is a requirement for all levels of government and private sector parties. Blurred or overlapping lines of responsibility among those parties exist today and pose challenges to the efficient and reliable investment of resources. Clearly defined federal, state, local, tribal and private sector roles and responsibilities are vital so that each party more effectively plan, program, allocate resources and deliver infrastructure benefits that satisfy its particular requirements

The President has set the direction he intends for the nation to follow to devote the necessary attention to our aging infrastructure. It is important to focus on the “how” infrastructure will be delivered to ensure the efficient and effective use of any provided resources.

Not only does our infrastructure require the involvement of leadership at the federal level but also requires effective leadership and an integrated team approach at all other levels. It will require creative thinking and innovation from all who have a role in the planning, programming, design and delivery of our infrastructure. We must be able to wisely invest the nation’s significant resources required to address our infrastructure needs.

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Retired Brig. Gen. J. Richard Capka, U.S. Army Corps of Engineers, is the chief operating officer for Dawson & Associates. He was the administrator of the Federal Highway Administration for President George W. Bush from 2006-2008. He also has more than 29 years experience of active military service with the U.S. Army Corps of Engineers, serving as commander of the Corps’ South Atlantic and South Pacific Divisions.