

# IN-PLACE INFRASTRUCTURE REPAIR PILOT PROGRAM FACT SHEET

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## THE NATION'S INFRASTRUCTURE IS CRUMBLING:

- The Federal Highway Administration (FHWA) has posted a [report](#) on the estimated 2018 replacement and rehabilitation costs for structurally deficient National Highway System (NHS) bridges.
  - The report lists **4,783 structurally deficient** NHS bridges in the 50 states and Puerto Rico.
  - **FHA estimates it would cost \$16.37 billion to rehabilitate all 4,783 bridges, which is 68% of the full replacement cost of \$24.1 billion** for deconstructing and reconstructing the deficient bridges.
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## THAT IS JUST THE COST FOR NHS BRIDGES:

- It does not include the cost of rehabilitating deficient bridges maintained by states and localities.
  - Nor does it include the costs of rehabilitation and replacement for structurally deficient roads, tunnels, public transportation, passenger and freight rail, airports, ports, dams, water impoundments, pipes, pipelines, public works, schools, and public buildings.
  - The American Society of Civil Engineers' (ASCE's) [2017 Report Card](#) assigned a grade of "D+" to the nation's overall infrastructure.
  - **The ASCE estimates the U.S. needs to spend some \$4.5 trillion – almost 5% of the nation's gross domestic product – by 2025 to fix the country's roads, bridges, dams, and other infrastructure.**
  - That's not all; Larry Summers, the Harvard economics professor and former Secretary of the Treasury, has called [the case for spending more on infrastructure maintenance "overwhelming,"](#) he estimates that **extra car repairs caused by deficient roads and bridges are equivalent to a 50-cent to \$1 tax per gallon of gasoline.**
  - Greg DiLoreto, past president of the ASCE, agrees; he estimates [poor infrastructure costs every American family \\$3,400 per year](#) due to auto repairs and extra gasoline and time stuck in traffic.
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## TAKE THE REHABILITATION OF THE WASHINGTON MEMORIAL BRIDGE AS AN EXAMPLE:

- This 3-year, \$227 million rehabilitation project started in the fall of 2018; [it is now halfway done.](#)
  - One sidewalk and one lane of traffic have been closed and will remain closed for the duration of the repair, causing a 3-year disruption in traffic which interferes with morning and evening commutes.
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## IMAGINE IF THIS REPAIR COULD BE DONE IN 3 MONTHS VS. 3 YEARS FOR 1/10<sup>TH</sup> THE COST:

- There are [commercially available products](#) that have been [used successfully by NASA](#) and the U.S. Army Corps of Engineers, among others, that could make this possible.
  - **These products can be used to make in-place repairs via surface applications that inhibit and repair corrosion, seal and strengthen cracked and crumbling concrete, and restore structural integrity to a state of good repair as defined in [section 24102\(12\) of Title 49 United States Code](#) without extensive, costly, and time-consuming deconstruction and reconstruction.**
  - A September 17, 2019 article published by the World Economic Forum, ["6 innovative technologies about to transform our infrastructure,"](#) describes several other innovations, such as 3D printing and lightweight prefabricated road modules made of recycled plastic waste, which could revolutionize the ways in which repairs are made and the costs and time they require.
  - [One U.S. company](#) already is on the way to making building materials through a patented chemical extrusion process that uses unsorted plastic wastes, including those that currently cannot be recycled, to create building materials such as concrete girder and beam replacements that not only have the compression strength of concrete, but three times concrete's tensile strength, and are not affected by freezing or thawing, or degraded by UV light.
  - **With these products, as many as 10 other bridges could be repaired for the same cost of the Washington Memorial Bridge's repair, in a fraction of the time, with much less traffic disruption.**
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**AFCC IS WORKING WITH THE CONGRESSIONAL COMMITTEES ON TRANSPORTATION, THE DEPARTMENT OF TRANSPORTATION, AND THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) TO ESTABLISH A PILOT PROGRAM TO TEST & APPROVE COMMERCIALLY AVAILABLE PRODUCTS & TECHNOLOGIES THAT WILL SAVE TIME & MONEY & EXPAND THE NUMBER OF REPAIRS THAT CAN BE MADE WITH EXISTING INFRASTRUCTURE REPAIR FUNDS**