

The President's Initiative for Rebuilding Infrastructure in America

February 2018



Message from the Secretary



Infrastructure is the backbone of our world-class economy—one of the most productive, flexible, and dynamic in the world. It is a key factor in productivity and economic growth, which has provided millions of hard working Americans with a standard of living that is the envy of the world. Yet today, these gains are threatened by aging infrastructure that is increasingly congested, in need of repair, and unable to keep pace with technological change.

The challenges are everywhere. Traffic congestion and delays cost drivers nearly \$160 billion annually. About one-quarter of our Nation's bridges are structurally deficient or in need of improvement. More than 20 percent of our Nation's roads are in poor condition. And the transportation needs of rural America, which account for a disproportionately high percentage of our Nation's highway fatalities, have been ignored for too long.

That's why 12 government agencies have been supporting the President on a comprehensive Infrastructure Initiative, which the President announced as a priority in his 2018 State of the Union address. Transportation is just one component. The Initiative includes, but is not limited to, drinking and wastewater, energy, broadband, and veteran's hospitals.

The goal of the President's proposal is to stimulate at least \$1.5 trillion in infrastructure investment, which includes a minimum of \$200 billion in direct Federal funding. The guiding principles are to: 1) use Federal dollars as seed money to incentivize infrastructure investment; 2) provide for the needs of rural communities; 3) streamline and speed up project delivery; and 4) invest in transformative projects that benefit everyone. In addition, a key element of the proposal is to empower decision-making at the State and local level, who know best the infrastructure needs of their communities. Half of the new infrastructure funds will go towards incentivizing new State and local investments in infrastructure. A quarter of the Federal funds will be dedicated to addressing rural infrastructure needs, as prioritized by State and local leaders. And as a former Secretary of Labor, I'm pleased to note this plan also has a workforce component, to help workers access the skills needed to build these new projects.

We're already applying these principles to the Department of Transportation's major existing infrastructure grant programs, including Infrastructure for Rebuilding America (INFRA). I'm pleased to say communities have responded positively by modifying their proposals to reflect these new criteria.

We're also implementing the President's "One Federal Decision" mandate, which will help speed the delivery of new infrastructure and reduce costs. The new process is designed to more effectively and efficiently handle the permitting of complicated, multi-agency projects to meet the President's new timeline, while preserving environmental protections.

In addition to permitting reform, the Department is doing its part to help grow the economy and create jobs through an aggressive regulatory reform agenda. Costs associated with new U.S. DOT regulations decreased by \$312 million in 2017, and we're on track to decrease these costs by \$500 million in 2018. So, the Department is on pace to save taxpayers nearly \$800 million in regulatory burdens in 2017–2018 alone.

By incentivizing new investment in infrastructure, eliminating overly burdensome regulations, and encouraging innovation, the Department is helping to improve our quality of life and build a brighter future for all Americans.

A handwritten signature in black ink that reads 'Elaine L. Chao'. The signature is stylized, with a large, flowing 'E' and 'L'.

Elaine L. Chao

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Executive Summary



America once could claim to have the greatest transportation infrastructure in the world. As a Nation, we created the most extensive railroad system on the planet and an unparalleled network of interstate highways. Our aviation system provided convenient travel anywhere in the country, and our efficient, multimodal freight system lowered the costs of goods, giving American firms an unbeatable competitive advantage. Driven by American ingenuity and ambition, our transportation system afforded our citizens a lifestyle and freedom unrivaled anywhere in the world.

But today, we can no longer lay claim to the world's greatest transportation system:

- Drivers on our highways face unprecedented levels of congestion—traffic delays cost our Nation's urban drivers \$160 billion annually in lost productivity.¹
- Nearly one in five domestic flights is delayed or canceled and many of our airports are crowded and require modernization.²
- American ports and inland waterways are aging and out-of-date compared to those of our competitors in Asia and Europe.

- Underinvestment in rural infrastructure impedes economic recovery and leaves many rural Americans facing growing economic hardship and isolation.
- Our Federal transportation programs have become unfocused and fail to incentivize ingenuity or efficiency.
- Overreliance on Federal grants and other forms of Federal funding has created disincentives for non-Federal revenue generation and using cost-saving approaches to optimize the long-term operation and maintenance of infrastructure.

It is clear that our current approach to transportation is no longer working. The President has called for at least \$1.5 trillion in infrastructure investment nationwide that will connect people to jobs, increase the efficiency of delivering goods, and improve the safety and well-being of all Americans. This goal will not be achieved by Federal investment alone, but rather by partnering with States, local governments, and the private sector to share responsibility and accountability in contributing to our Nation's future. To spur renewed investment and achieve the target of at least \$1.5 trillion in infrastructure investment, the Administration has proposed Federal investments of \$200 billion in core infrastructure.

The Administration released its Legislative Outline for Rebuilding Infrastructure in America on February 12, 2018. The proposed investments and reforms will modernize our infrastructure, strengthen our economy, increase our international competitiveness, and improve the quality of life of all Americans.

Due to confusing and complicated Federal rules and regulations, much-needed projects languish for years in bureaucratic red tape, and reduce the willingness of the private sector to invest in public systems. Innovative financing approaches to leverage private sector ingenuity, expertise, and investments are underutilized in favor of a government-controlled approach. While Canada, Australia, Europe, and Latin America have benefited from more than \$140 billion in private investment in transportation infrastructure over the past five years,³ the market for private investment in the United States remains sporadic and uncertain. If the United States continues with this approach to our transportation system, we will continue to fall further and further behind our peers.

It is also vital that our investments have a multimodal focus to expand transportation options and improve traffic flows over the long term. For example, development of new airports will need to be accompanied by construction of road and rail bypasses as well. An integrated approach to infrastructure will ensure greater resiliency and enduring value from today's investments. The private sector has already recognized these myriad benefits to comprehensive multimodal infrastructure, and we will support these efforts to facilitate future development.

This booklet describes the transportation initiatives proposed in the Legislative Outline for Rebuilding Infrastructure in America. Key actions include:

1. Establish an Infrastructure Incentives Program:

This competitive program will encourage increased State, local, and private investment by providing \$100 billion in Federal funding to projects that demonstrate innovative revenue generation, life-cycle cost management, and cost-effective approaches to project delivery. This program will begin to address the challenges presented by our outdated funding structure, developing projects that will accelerate the modernization of our infrastructure.

2. Dedicate Federal Funding to Rural Transportation Needs:

The Administration is committed to addressing the wide-ranging infrastructure needs of rural America by providing \$50 billion in direct funding to States for capital investments that support projects in rural areas, including U.S. territories and Tribal communities. By improving and building upon existing programs, the Administration will be able to increase economic competitiveness and enhance the quality of life for rural Americans.

3. Initiate a Transformative Projects Program: This \$20 billion competitive program will provide Federal funding and technical assistance to private firms and nonprofit organizations that use transformative technologies and techniques to improve or reduce the costs of transportation services. This program will fill innovation gaps, and yield technologies that may solve our critical issues surrounding safety, congestion, and efficiency.

4. Use Federal Funding to Stimulate Investments in Projects of National and Regional Significance:

The Administration proposes dedicating \$20 billion to expand the capacity of existing Federal credit programs and broaden the use of private activity bonds (PABs) to create multipliers of the Federal investment.

5. Implement Infrastructure Improvement Reforms:

The Administration's Initiative also includes a series of regulatory reforms that would encourage and incentivize alternative project delivery, including State, Tribal, local, and private investment, in transportation; streamline Federal procedures for delivering transportation projects; and decrease barriers and reduce unnecessary Federal oversight to facilitate timely delivery of projects.

6. Accelerate Environmental Review and Permitting:

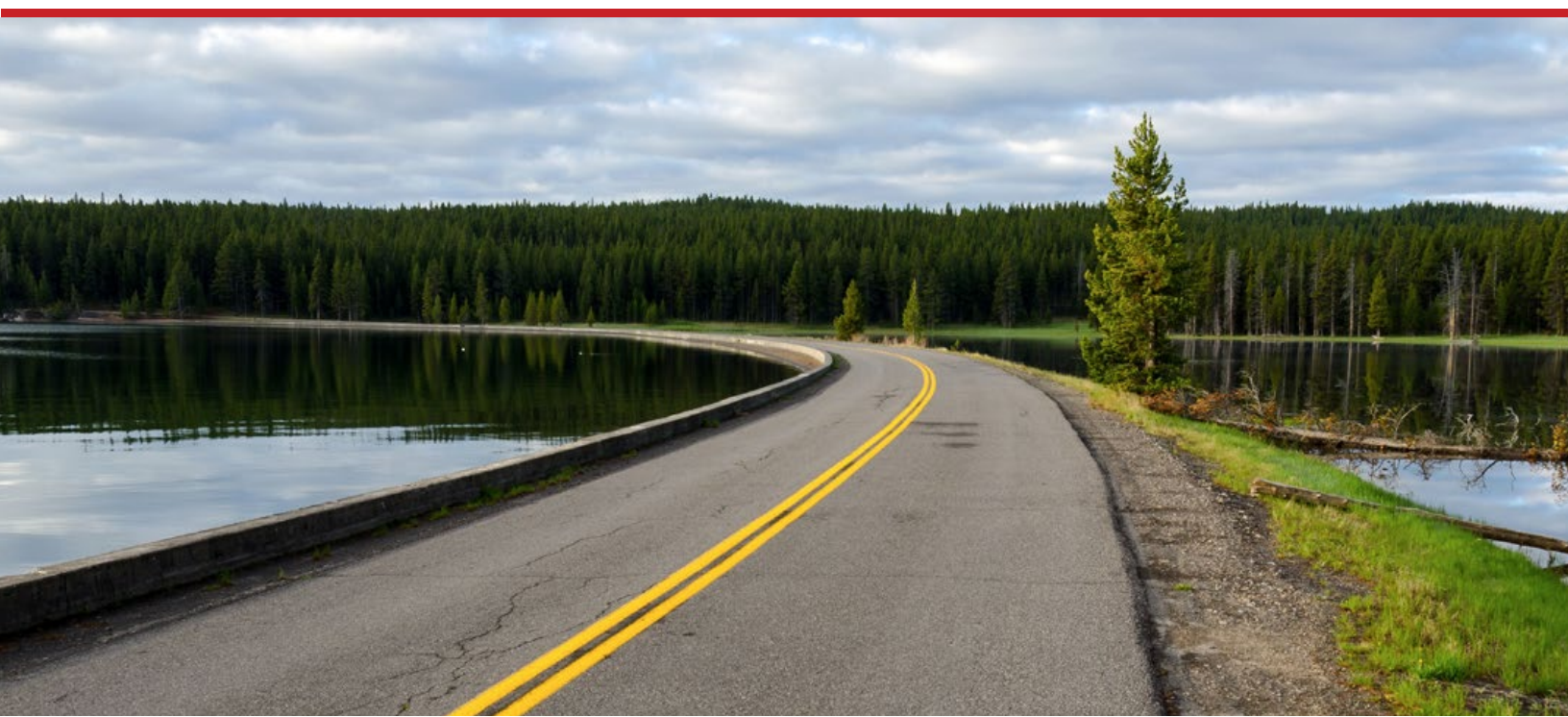
To accelerate the delivery of much-needed transportation projects, the Administration calls for the modernization of the environmental review and permitting process through a series of reforms. Reducing the environmental review and permitting timeline will reduce project costs, and help avoid delays to needed projects. These reforms will improve the efficiency and transparency of the environmental review process while protecting critical environmental resources. The Administration's Initiative also calls for establishing a "One Agency, One Decision" policy that sets timelines for completing environmental reviews and permitting decisions and defines appropriate enforcement mechanisms for permitting decisions.

These actions account for \$190 billion in funding for infrastructure programs. In addition, the Administration's Initiative calls for \$10 billion to establish a Federal Capital Financing Fund for the purchase of real property. The Financing Fund is not discussed in this booklet.

This booklet aligns with the priorities and principles put forth in the Legislative Outline for Rebuilding Infrastructure in America. The Administration's Initiatives to modernize our Nation's transportation infrastructure and reform our approach to Federal transportation policy are described in the following sections:

- **Part I. The Infrastructure Problem** describes the challenges facing our transportation system;
- **Part II. The Infrastructure Plan** defines the key components of the Administration's Infrastructure Plan for transportation;
- **Part III. Provisions for Infrastructure Improvements** provides additional information on reforms proposed for Federal highways, transit, rail, aviation, and maritime programs;
- **Part IV. Permitting Reform** describes the Administration's proposed approach to reforming the environmental review and permitting process; and
- **Part V. The Path Forward** lays out the Administration's vision for infrastructure.

Part I. The Infrastructure Problem



A Misaligned Federal Role

In 1956, President Eisenhower signed the Federal-Aid Highway Act. This landmark legislation enabled the construction of perhaps the most transformative public works project in U.S. history, the Interstate Highway System. The goal of the legislation was to create a comprehensive interstate network of highways that would improve safety, reduce congestion, allow for more efficient freight movement, and serve our Nation in times of national emergency.

The Federal-Aid Highway Act created the Highway Trust Fund to cover the expenses of the Federal-Aid Highway Program and dedicated Federal fuel tax receipts to the fund. To spur construction of the system the Act raised Federal funding for highways and increased the ratio of Federal-to-State funding for interstate projects from 50 percent to 90 percent. Building the Interstate Highway System remained a cooperative endeavor, with the Federal Government providing and administering the majority of the funding and setting design standards for the system, and with each State transportation department (DOT) managing its own program for location, design, right-of-way acquisition, and construction. In 35 years, our Nation built more

than 41,000 miles of interstate highways, achieving Eisenhower's vision for a comprehensive nationwide highway system.

The Interstate Highway System was the largest public works project in American history and, much like its 19th century predecessors—the Erie Canal and the Transcontinental Railroad—it transformed our Nation's economy and way of life by reducing travel times, connecting markets to resources, and opening new lands to development.

The construction of the interstate highways pumped billions of dollars into the Nation's economy, spurring economic development across the country. Declared complete in 1992, the Interstate Highway System connected isolated rural communities to economic opportunities, lowered the cost of freight, reduced congestion, and, most importantly, improved the safety of the traveling public.

In the years following construction of the Interstate Highway System, the number of Federal transportation programs multiplied, as did the mileage and types of projects eligible for Federal aid. As Congress expanded eligibility for Federal funding, it raised the ratio of

The experts agree. The Federal transportation role needs a more focused approach and a greater emphasis on accountability.

“Today the Federal Government has no comprehensive vision for the program, no sense of the spatial patterns of the economy, and decision-making still takes place in opaque and unaccountable ways.”

Brookings Institute

“The Federal transportation program needs to refocus on the national transportation system and leave local projects with local benefits to local governments.” The Reason Foundation

“Too many State legislatures are still pouring money into yesterday’s priorities. Too many are failing to increase transparency and accountability in the process of picking transportation projects; a process that the tax paying public finds murky, mysterious, and overly political.” T4 America

“The American economy is on the up-and-up, but we’re nowhere near where we should be. We can grow faster. We can be more competitive. But we need better infrastructure in order to get there.”

U.S. Chamber of Commerce

Federal-to-State funding for non-interstate projects from 50 to 80 percent.

Use of Federal transportation funding to pay for a wide range of transportation projects has created an unhealthy dynamic in which State and local governments may hold back on beginning needed projects in the hope of receiving Federal funds. Federal grants and other funds distributed to State and local

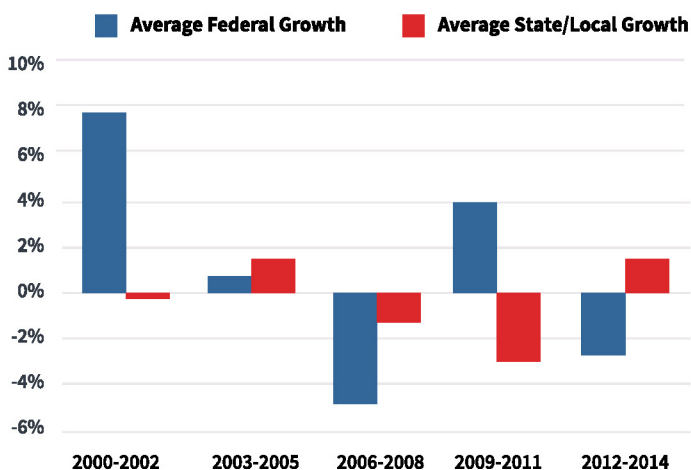
authorities have often become a substitute for State and local funds, disincentivizing non-Federal revenue generation.

For example, a study by the Federal Reserve Bank of St. Louis found that \$28 billion in additional funding for improving highways under the American Recovery and Reinvestment Act of 2009 (ARRA) had no significant impact on highway and bridge conditions or jobs.⁴ The study also suggested that some additional Federal funding for highway infrastructure provided by ARRA may have been offset by reductions in State funding for highways.

Federal transportation funding is allocated and managed in a way that raises project costs while providing few incentives for efficient use of funds to achieve measurable outcomes. Highway Trust Fund dollars are largely allocated on the basis of historic formulas that are based on highway mileage and use. For the most part, these formulas are not tied to performance and States have significant latitude over which transportation projects to fund. Federal and State rules are designed to ensure that projects are comprehensively planned and procured competitively and fairly; however, under the current approach, little is done to ensure that the projects that are funded are the most economically advantageous or that innovative procurement methods, such as public-private partnerships, are considered.

Federal funding for transportation projects also creates an additional layer of legal and administrative requirements for States responsible for planning and procuring projects. These requirements can increase the costs of projects and delay their implementation.

Annual Growth in Federal versus State/Local Highway/Transit Spending



Source: Federal Reserve Bank of St. Louis Review

Without defining a more appropriate scope for Federal infrastructure investment, and establishing greater accountability, it will be difficult to improve public support for funding Federal transportation programs. To improve public confidence in Federal transportation programs, the Federal Government must clearly articulate the purpose of Federal programs and establish mechanisms to ensure that those funds are spent efficiently to achieve meaningful and measurable outcomes.

The Federal Government must reestablish a clear Federal role in infrastructure investment. Today, much of Federal funding for surface transportation and other infrastructure projects is spent on investments that do not support national interests thus preventing investment in projects that yield sustained progress toward a superior transportation system.

We need to reevaluate and redefine the Federal role to ensure that Federal dollars are spent on cost-effective projects that help to achieve Federal goals, and that States and municipalities receive flexibility and incentives for more efficient delivery of infrastructure.



Challenges by the Numbers in Rural America

- **17 percent** of households in rural areas have incomes below the poverty level.
- The rate of traffic fatalities is **2.6 times higher** on rural roads than urban roads.
- Only **60 percent** of rural counties nationwide have public transportation available and **28 percent** of those have very limited services.

Neglect of Rural Areas

About 60 million Americans live in rural areas.⁵ Our rural transportation system is critical to supporting the livelihoods of our rural citizens, and undergirds the industries without which our national economy could not thrive. It includes 2.98 million miles of roads and 444,000 bridges, as well as large portions of the Nation's 140,000 miles of rail and 25,000 miles of inland waterways.⁶

Rural transportation accessibility and connectivity are critical to transportation-dependent business sectors in rural areas, including the growing energy production sector, advanced manufacturing, and tourism. America's rural transportation network provides the first and last link in the supply chain from farm to market and enabling the production of energy. Rural America is also home to most of our great outdoor recreation areas and public lands. Tourism, which depends on a reliable transportation network, is a major employer in many rural counties.

Roads, highways, rails, and bridges in the Nation's rural areas face a number of significant challenges. Underinvestment in rural transportation systems has allowed a slow and steady decline in the networks of roads, rails, waterways, and airline routes that connect rural American communities to each other and to the rest of the country. In some places, rural infrastructure lacks adequate capacity, fails to connect communities to needed resources, and does not accommodate growing freight travel in many corridors.

In recent years, freight transportation on rural roads has increased dramatically in certain regions as domestic oil and gas extraction has boomed. The development of new oil and gas fields (particularly in the North Central Plains), and greater agricultural production, are increasing large truck traffic loads on non-interstate rural roads, roads that were not built to carry such high load volumes.

Residents of rural areas often must travel longer distances to access education, employment, retail locations, social opportunities, and health services. Compounding the problem, many hospitals and businesses in rural areas are closing, reducing access to basic goods, services, and jobs.⁷ As a result, people who live in rural areas face growing economic hardship and isolation.

Safety challenges must be addressed.

37,461 people died and approximately 2.4 million people were injured in road crashes in 2016.

Among Americans aged **1 to 28**, motor vehicle crashes are the leading cause of death.

More than 1 in 3 vehicular fatalities resulted from crashes involving speeding or alcohol-impaired driving.

Distracted driving was a factor in **1 out of every 10** fatal crashes.

Traffic crashes cost our society more than **\$242 billion annually**.

Source: NHTSA and Centers for Disease Control and Prevention

Americans in rural areas depend on a robust transportation system to safely sustain their economic viability and access essential services, yet they encounter major challenges that are often neglected by Federal policymakers and programs. Population loss and low levels of employment have left rural towns and counties with a reduced tax base and less funding to address urgent infrastructure needs. While urban areas, in general, have recovered from the economic recession, employment levels in rural areas continue to lag behind pre-recession levels, as an aging population and the continued decline of manufacturing jobs have slowed their recovery.⁸

Traffic Fatalities Are Spiking

While traffic fatalities dropped significantly for much of the past two decades, in recent years we have seen alarming increases that have eroded a decade of progress. In 2016, 37,461 people died and approximately 2.4 million were seriously injured in road crashes, an increase in traffic fatalities of 5.6 percent from the previous year.⁹ This represents the highest number of traffic fatalities in a decade and the largest percentage annual increase in more than 50 years. The rate of traffic fatalities per 100,000 people was 11.59, the highest since 2008.¹⁰

The causes of the recent increases in traffic fatalities after a five-decade trend of decline are varied. Speeding, driving under the influence, and distracted driving are involved in a significant portion of traffic fatalities—more than 1 in 3 fatalities resulted from crashes involving speeding or alcohol-impaired driving.¹¹ Distracted driving is involved in nearly 1 out of every 10 fatal crashes.¹² Rural roads have a traffic fatality rate 2.6 times higher than all other roads.¹³ An estimated 19 percent of the U.S. population lived in rural areas; however, rural fatalities accounted for 51 percent of all traffic fatalities in 2016.¹⁴ Safety improvements and upgrades are needed to reduce the number of fatalities and injuries on roads in rural communities. However, financial constraints can force States to limit the resources put toward safety improvements. The poor condition of rural roads, in addition to the design, contributes to the level of crashes and fatalities.

A 2015 study by the United States Department of Transportation (U.S. DOT) National Highway Traffic Safety Administration (NHTSA) found that traffic crashes cost our society more than \$242 billion annually, or \$784 for each person living in the United States.¹⁵ Innovative safety technologies and policies are needed now, more than ever. New technologies are becoming available that could help to improve the safety of road users. Studies show that technologies such as forward collision and lane-departure warnings, blind spot assist, and adaptive headlights, currently available in newer vehicles, could help to prevent about 1 in 3 fatal crashes and 1 in 5 injury crashes.¹⁶ Increased investment in and data-driven application of proven safety countermeasures, such as roundabouts, rumble strips, lane striping, and high-friction surface treatments, could help to make our roadways safer. For example, roundabouts have been found to reduce severe crashes at intersections by 76-82 percent.¹⁷ Similarly, studies have shown that high-friction surface treatments applied on high-risk slopes and curves can dramatically reduce crashes, yielding returns on investment of more than 20 to 1.¹⁸

Congestion Is Increasing

Despite nearly \$500 billion dollars in Federal investments in our transportation system over the past decade, we have seen little improvement in congestion on our transportation system. More Americans are driving than ever before, and our freight systems have not advanced, giving rise to increasing congestion. The average American spends 42 hours in traffic each year, the equivalent of a full work week. Highway congestion

costs urban drivers an estimated \$160 billion each year in wasted time and fuel and an average commuter more than \$960 annually.¹⁹ Congestion will only get worse if we fail to address it; the U.S. DOT Federal Highway Administration (FHWA) expects vehicle travel to grow by 26 percent over the next 30 years.²⁰

Bottlenecks and other congestion severely limit the performance and capacity of the highway system and delay large numbers of truck freight shipments. Areas with the worst truck delays include major international trade gateways and hubs, such as Los Angeles, New York, Seattle, Houston, and Chicago, and major distribution centers such as Atlanta, Louisville, Nashville, Cincinnati, and Dallas.²¹

Congestion also impacts our Nation's air travel, leading to chronic flight delays that cost the economy more than \$20 billion each year. In 2017, almost 20 percent of flights were delayed or canceled.²² In 2010, a Government Accountability Office (GAO) review of the U.S. DOT Federal Aviation Administration (FAA) data found that 80 percent of all departure delays can be traced back to seven airports—Hartsfield-Jackson Atlanta, Newark Liberty, LaGuardia, John F. Kennedy, Chicago O'Hare, San Francisco, and Philadelphia.²³ FAA forecasts air travel on U.S. commercial airlines to grow by 47 percent over the next 20 years.²⁴

Our System Needs Investment in Rehabilitation and Repair

Despite increasing investments and improving technologies, we have made only incremental progress in improving the conditions of our roadways and transit systems. Sections of the interstate system, built 50 years ago, are reaching the end of their design life-cycle and require reconstruction and modernization. In fact, in spite of Federal investments in highway improvements, since 2002, the share of pavement miles in the Federal-aid highway system with "poor" ride quality increased from 13 percent in 2002 to 20 percent in 2012.²⁵

We have made some progress in improving bridge conditions; over the past decade the number of structurally deficient bridges has decreased. However, nearly one-quarter of the bridges in our transportation system remain structurally deficient or functionally obsolete. A bridge classified as structurally deficient or functionally obsolete is not unsafe, but may require the

Bumper to Bumper



On average, drivers spend over

42 HOURS

stuck in traffic each year



The annual cost of congestion in delays and lost fuel is

\$160 BILLION



The annual cost of truck congestion is

\$28 BILLION

Source: Urban Mobility Scorecard, Texas A & M Transportation Institute and INRIX



Growing Capacity and Maintenance Needs of Our Freight System

Freight systems across all modes of transportation face capacity constraints and rising maintenance costs. Poor road conditions, inaccessible railways, and underfunded inland waterways threaten to increase the cost of transporting goods and reduce opportunities for economic development. As our economy grows, our freight system will have to expand to accommodate the additional demand for resources and goods. According to FHWA, demand for domestic freight is expected to increase by 40 percent over the next 30 years.²⁹

After decades of consolidation, rail companies face rising infrastructure costs to resolve choke points and to provide capacity to meet rising demand. In 2015, the private companies that own and operate the majority of the country's rail network invested \$27.1 billion in equipment and improvements to upgrade to bridges, tunnels, and tracks.³⁰ Short lines and regional rail companies own and operate 31 percent of the rail network and have less access to much-needed investment.³¹ In 2013, the U.S. DOT Federal Railroad Administration estimated that these railroads will require \$6.9 billion in investments to meet current and future needs.³²

posting of a vehicle weight or height restriction. In recent years, more than 15 percent of State capital spending on highways has gone to bridge rehabilitation and replacement.²⁶

Our roads and bridges have suffered from decades of underinvestment. FHWA defines an investment backlog as all highway and bridge improvements that could be economically justified for immediate implementation, based on the current conditions and performance of the highway system. FHWA has estimated that the total investment backlog on Federal-aid highways and bridges was \$645 billion as of 2012. Of this total, \$436 billion is for system rehabilitation and \$209 billion is for system expansion and enhancement.²⁷

The transit systems that support millions of commuters throughout America face an estimated \$90 billion maintenance backlog and are becoming increasingly unreliable. At current levels of investment this backlog is expected to grow to \$122 billion by 2032.²⁸

Addressing this investment backlog will require public transit agencies to increase their current spending on system preservation and expanding the system to meet growing demand. Additional expenses for system preservation will grow from approximately \$10 billion to \$17 billion annually, and expenses to expand systems to meet growth will require an increase in investment from \$7 billion to \$10 billion annually.

America cannot wait to invest in its infrastructure.



20 percent of roads on the Federal-Aid Highway System provide poor ride quality.



25 percent of bridges in our transportation system are structurally deficient or functionally obsolete.



The investment backlog for Federal-aid highways is more than **\$645 billion**. The maintenance backlog for transit systems is more than **\$90 billion**.

Source: FHWA/FTA, 2015 Conditions and Performance Report

American ports need to expand and become more efficient to compete with growing deep-water ports in neighboring and nearby countries. Raising bridges, dredging harbors, widening channels, and purchasing bigger ship-to-shore cranes are key steps to preparing for expected increases in demand and ensuring safe and efficient intermodal freight movement into the future. Ports depend on efficient connections to the national intermodal freight system and investment is needed to eliminate bottlenecks and facilitate the movement of freight from ports to distribution centers.

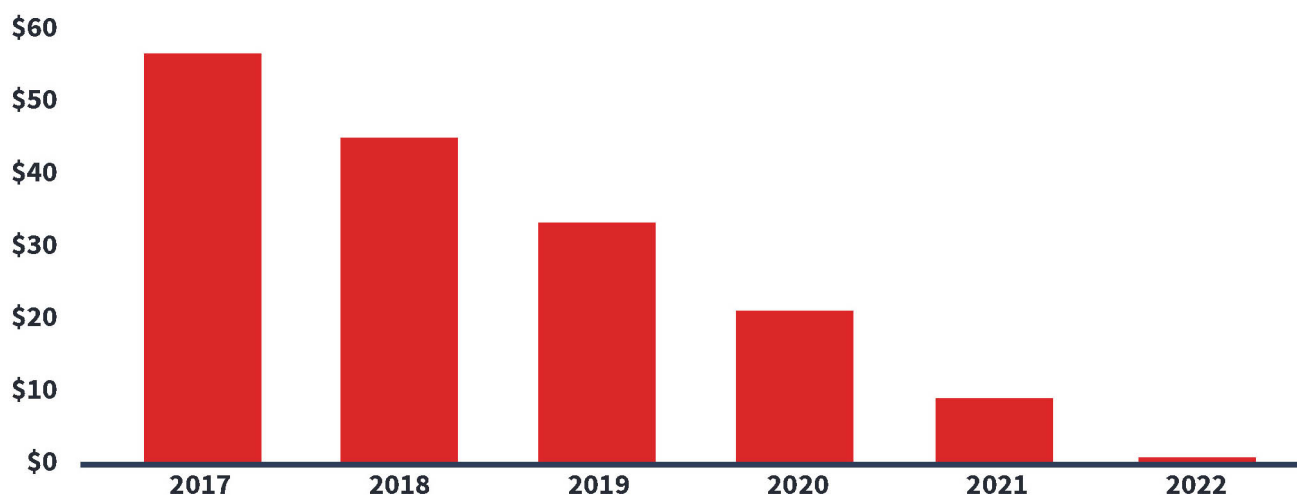
The Federal Gas Tax Is Insufficient and Unsustainable

The simple, user-based funding mechanism for the highway system is becoming increasingly unsustainable. Federal fuel taxes per gallon have not been increased since 1993. During that time, inflation has eroded the purchasing power of Federal transportation funds by nearly 40 percent. The fuel economy of vehicles has increased over the same period leading to reductions in fuel use and reduced fuel tax revenues. The Congressional Budget Office (CBO) has estimated that the higher fuel efficiency standards already in place will reduce fuel tax revenues by more than 20 percent over the next 25 years.³³ Breakthroughs in renewable fuels, electric vehicles, or automation are likely to lead to further decreases in fuel tax revenues.

Over the past decade, increased dependence on non-fuel tax revenues has undermined the user-pays principle on which the Highway Trust Fund was founded. Because gas tax revenues are no longer sufficient to meet current Federal highway and transit expenditures, the Highway Trust Fund now depends on regular infusions of funding from the General Fund to sustain spending levels. To avoid reducing the level of Federal funding for highways and transit without increasing the gas tax, Congress has resorted to other funding mechanisms that move highway finance further away from the user-pays principle.

Between 2007 and 2014, Congress transferred more than \$60 billion from the Treasury's General Fund to the Highway Trust Fund. In fact, the Moving Ahead for Progress in the 21st Century Act (MAP-21) was partially funded through transfers from the General Fund and from the Leaking Underground Storage Tank Trust Fund. To offset the cost of these transfers, Congress enacted provisions unrelated to transportation. The subsequent transportation authorization, Fixing America's Surface Transportation (FAST) Act, enacted in December 2015, provides the Highway Trust Fund with an additional \$70 billion in transfers from the General Fund over the next five years to make up for Federal gas tax shortfalls. By 2021, when the FAST Act authorization comes to an end, Federal gas tax shortfalls will have grown to \$13 billion annually, or the equivalent of a 10-cent per gallon tax increase.³⁴

Projected Highway Trust Fund Balance (\$ billions)



Source: The President's Budget

Complexity and Inconsistency in Environmental Review and Permitting Causes Delays and Increased Cost

The environmental review and permitting process can be complex, inconsistent, and difficult for project sponsors to navigate. While an environmental review process is critical for ensuring that proposed projects do not negatively impact nearby communities or natural resources, excessive delays in the process can increase project costs and prevent communities from realizing the full benefit of infrastructure investments in a timely manner.

Several high-level challenges prevent the environmental permitting and review processes from efficiently achieving their objectives. Implementation of the Administration's Initiative will save project proponents time, money, and resources and allow the public to realize project benefits sooner.

The term “environmental review and permitting” refers to a large number of Federal laws and regulations, each with multiple pathways. In order for a project sponsor or lead agency to complete the process, they must determine which laws and regulations are applicable, and then which path to pursue for each law. Even for experienced sponsors, this can be a challenging endeavor and is a major source of delay.

Application of environmental regulations can be inconsistent and unpredictable across regions and infrastructure projects. Across the country, environmental review and permitting decisions are often made on a project-by-project, region-by-region level, and thus the decision-makers within regulatory agencies on infrastructure projects are often out of sync in their application of laws and regulations.

While one project may receive guidance that an impact to a resource is not significant, a similar project may receive a different decision for the same action. This inconsistency is unacceptable, as project proponents, agencies, and consultants have no clear path to follow, and no assurance that repeated actions in similar circumstances will follow the same process path.

The environmental review process must be streamlined and clarified.

The average time frame to complete an environmental impact statement (EIS) is **between 4.6 and 5.1 years**, and the full environmental review process on complex projects can exceed **10 years**.

Source: GAO, National Association of Environmental Professionals, and Philip K. Howard.

In August 2017, an Executive Order established “One Federal Decision” on environmental review and permitting. Under “One Federal Decision,” Federal agencies must establish a single point of contact who is responsible for navigating a major infrastructure project through the environmental review and permitting process. Additionally, this process will result in a single record of decision and the issuance of the necessary permitting decisions within 90 days. The Executive Order sets a goal of completing the process in 2 years. Prior to this, different agencies held responsibility for the implementation of different laws and regulations, meaning that project proponents and agencies had to potentially work with a large number of Federal agencies and complete multiple environmental documents to advance a single project. In addition, when agencies are not in agreement with each other, there is no clear arbiter who can resolve the issue.

Environmental review and permitting draws Federal agencies into fundamentally non-Federal projects. A variety of items trigger the Federal nexus that make a project subject to Federal-level environmental review and permitting. These include circumstances where a Federal agency funds, authorizes, or carries out the program or project or activities that require a permit by law. As a result of this wide definition, many projects that are not fundamentally Federal are required to comply with not just State, but Federal environmental laws and regulations.

Conclusion

Our Nation's infrastructure, a critical driver of our economy, has fallen into disrepair. Years of underinvestment and inefficiency have led to increasing congestion and rising transportation costs. This breakdown of our infrastructure system affects all Americans—reducing our quality of life, undermining our competitive advantage, and slowing economic growth.

We, as Americans, need to renew our commitment to America's infrastructure with bold reforms, effective investments, and transformative technologies. Working together we can turn our transportation system's performance around and make America's infrastructure the best in the world once again.

To achieve a world-class infrastructure system we need to couple investment with reform. Without a clear purpose or vision, our Federal transportation policy has become disjointed, inefficient, and unsustainable. By tackling what is currently not working in the Federal infrastructure program, this Administration can lead America to a world's-best infrastructure system. Key steps include: empowering State and local decision-making; limiting our Federal role to only projects that truly are of Federal interest and national importance; leveraging private sector investment and ingenuity; and improving the regulatory process to accelerate project delivery. Taking these actions will lead to faster, smarter, and better projects.

Now is the time to act, before we fall further behind. We need reforms and investments that improve the public sector's efficiency and capabilities while opening the private sector's potential for innovative solutions. As new technologies such as automated and electric vehicles, unmanned aerial systems, advances in sensors, connectivity, and cloud computing unlock the potential to transform our transportation system, we need to invest in infrastructure that supports and encourages these new and innovative technologies. This Infrastructure Initiative will engage innovators in the private and public sectors, incentivize novel solutions, and accelerate the integration of new technologies to solve long-standing transportation problems.

The funding programs and policy reforms outlined in the following sections lay out a new path for accomplishing this vision.

Part II. The Infrastructure Plan



The Nation's infrastructure needs to be rebuilt and modernized to maintain America's economic competitiveness, connect communities and people to more opportunities, and drive economic growth.

The Administration's Infrastructure Initiative aims to maximize infrastructure investments and their impacts by stimulating State and local investment, partnering with the private sector, investing in rural infrastructure, supporting the development and deployment of transformative technologies, and accelerating project delivery. The programs and policy reforms advanced by this Administration are designed to achieve these objectives and, ultimately, transform the way infrastructure is designed, built, and maintained.

- **Empower State and local decision-making:** States and localities are best equipped to understand the infrastructure investment their communities need. The Federal Government will need to provide support and incentives for communities to move toward a model of greater ownership.
- **Partner with the private sector:** Public-private partnerships accelerate the delivery of much-needed projects and increase private investment in infrastructure. By imposing market discipline in the design, construction, operation, and maintenance of transportation projects, public-private partnerships incentivize increased innovation, higher quality

service, and better management of infrastructure life-cycle costs. The Federal Government will remove barriers to greater private investment in infrastructure.

- **Invest in rural infrastructure:** There is significant need for investment in rural American transportation infrastructure to improve safety, facilitate freight movement, and stimulate economic development. Federal programs will also need to help ensure that the transportation investment needs of Tribal communities and territories are understood and addressed.
- **Support the development and deployment of transformative technologies:** New transportation technologies have the potential to dramatically improve the performance of our transportation system. The Federal Government will support the development and construction of bold, innovative, and transformative transportation technologies.
- **Accelerate project delivery:** Federal environmental and permitting processes for major infrastructure projects are fragmented, inefficient, and unpredictable, resulting in lengthy delays for critical transportation infrastructure projects. Reforms are needed to make the process more efficient and effective while protecting the environment.

Public-Private Partnerships can accelerate project delivery and improve the management of project risks and life-cycle costs.

In the last five years Canada, Europe, Latin America, and Australia have seen \$140 billion in public-private projects. But legal and institutional barriers have limited their use in the U.S.

Asset recycling, where public agencies lease revenue-generating assets to the private sector, can be used to leverage private investment to modernize infrastructure.

Source: Reason Foundation and Bipartisan Policy Center

Infrastructure Incentives Program

The U.S. DOT is committed to supporting the President's call for at least \$1.5 trillion in new infrastructure investment. This ambitious goal will not be achieved through Federal investment alone. The Federal Government will need to partner with States, local governments, and the private sector to share in the responsibility and maximize their own contributions. By stimulating state, local, and private investment, the Administration's Initiative extends Federal dollars to capitalize on far more projects.

To maximize infrastructure investment, the Administration proposes establishing a \$100 billion Infrastructure Incentives Program to encourage increased State, local, and private investment in infrastructure by providing incentive grants to a wide range of infrastructure projects.

States and local governments can decrease their dependence on Federal funding by developing their own dedicated revenues for transportation, improving the management of long-term asset life-cycle costs, and enabling increased private investment in infrastructure. That way States also get more investment for each dollar spent.

State and local governments depend on Federal funding to deliver a wide range of transportation projects. However, use of Federal funding for transportation

projects creates additional layers of legal and administrative requirements that raise costs and result in delays and inefficiencies in the delivery of needed infrastructure projects. Federal funding reduces incentives for States and local governments to create new transportation revenue streams, and Federal rules restrict their ability to efficiently raise revenues.

This unhealthy and unsustainable dynamic leads to inefficiency and underinvestment. Federal fuel taxes, which haven't been increased since 1993, are no longer sufficient to support the investments needed to support the scope of the Federal transportation program and will likely deteriorate further over the long-term as vehicle fuel efficiency improves. As the user-pays principle on which the Highway Trust Fund was founded deteriorates, our Federal transportation program will need to provide mechanisms to establish a more equal partnership with State and local governments.

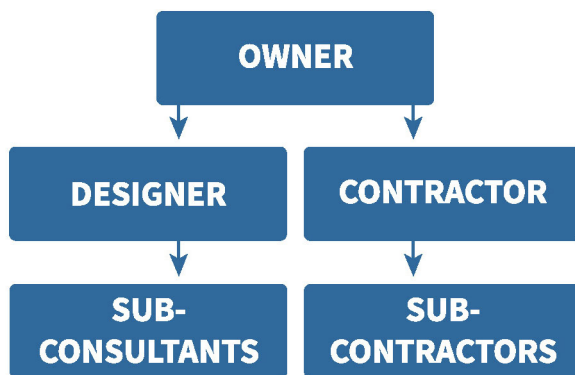
As a result of the disincentives created by our dysfunctional transportation funding structure, many States and municipalities have stopped waiting for the Federal Government to provide funding resources and have raised their own dedicated revenues for infrastructure projects. In the November 2016 election, voters across the country approved ballot measures that authorized more than \$200 billion in new State and municipal funding for transportation projects.³⁵ States and municipalities are better equipped than the Federal Government to understand the right level and type of infrastructure investments needed in their communities.

Leveraging Private Sector Investments

The American public expects its government to provide road and transit services at reasonable rates that are often subsidized by taxpayers. Yet, they are also accustomed to the private sector providing other utilities and infrastructure services such as electrical power, telecommunications, and freight rail. Due to legal and institutional barriers that favor taxpayer-subsidized public financing and delivery of transportation projects, private sector involvement in transportation infrastructure is more limited in the United States than in other countries, where privately provided utilities and transportation services are much more widespread.

In Canada, Europe, and Australia, private operation and maintenance of highways is common, and in many countries major airports are privately operated. While public-private partnerships will not be the solution to all infrastructure needs, they can help advance the Nation's most important, regionally significant projects.

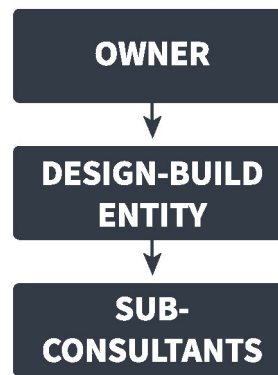
Traditional Project Delivery:



Owner must manage **TWO** separate contracts:

- Owner becomes the middleman, settling disputes between the designer and the contractor.
- Designer and contractor can easily blame one another for cost overruns and other problems.

Design-Build Project Delivery:



Owner manages **ONE** contract with a single point of responsibility:

- Designer and contractor are on the same team, providing unified recommendations.
- Changes are addressed by design-build entity, not used as excuses.

Source: Design-Build Institute

that allow for greater private sector participation in the delivery, financing, and operation of transportation projects compared with traditional public procurement models. Public agencies may use public-private partnerships to construct new facilities or to expand or rehabilitate existing facilities. A spectrum of transportation public-private partnership models exist that vary by the degree to which responsibilities are transferred to the private sector.

Public-private partnerships allow public agencies to leverage private sector capital and expertise to deliver projects more quickly and efficiently by introducing greater market discipline to project delivery and management. By enabling private sector investment in infrastructure, they can help public agencies accelerate projects that have been stalled due to a lack of public sector resources. A key benefit of public-private partnerships is that they transfer construction and operations risks to the private sector. The transfer of these risks provides strong incentives for the private sector to deliver projects on time and on budget and to manage the long-term maintenance costs of a project. As a result, public-private partnerships are less likely than traditionally procured projects to experience delays or go over budget.³⁶ Furthermore, the private partner takes

on a greater share, or all of the risk of delays and cost overruns instead of the taxpayer. Finally, public-private partnerships encourage more innovative approaches to designing, financing, and operating infrastructure that can result in improved service quality and reduced costs to the public.

Design-Build

Design-build streamlines the conventional highway construction process. In a design-build process, a project sponsor identifies what they want constructed, accepts proposals, and selects a design-build team to assume the risk and responsibility for the design and construction phases. Use of this technique leads to an accelerated process that can save time and resources while avoiding lengthy project delays.³⁷ Design-build gives the contractor flexibility in selecting the design, materials, and construction methods based on the available equipment, workforce, and resources, allowing them to apply innovative, cost-saving, design, construction, and management techniques. By using design-build, project sponsors can reduce project durations on major projects by approximately one to two years, lower costs, and improve safety.

Over the past decade, use of design-build has improved project delivery on many major transportation projects,

including the I-35W bridge replacement project in Minnesota and the Tappan Zee Bridge replacement project in New York State. Design-build procurement for the Tappan Zee Bridge replacement project saved New York taxpayers approximately \$1 billion from the original estimated cost of \$5 billion. Minnesota DOT used a design-build contract to replace the I-35W bridge just 13 months after its collapse in 2007.³⁸

Concession Public-Private Partnerships

In design-build-finance-operate-maintain (DBFOM) concession models, the private partner is responsible for designing, building, financing, constructing, operating, and maintaining the facility for a significant period of time—typically 30 or more years—before returning it to the public sector. In a concession public-private partnership, a private firm invests equity upfront to help pay for the design and construction costs of the project and those investments are paid back through user fees on the constructed facility or by scheduled payments from the public partner. Encouraging private sector investments can provide an alternative source of financing that can accelerate projects and save taxpayers money. When private sector partners invest their own money in a project, it strengthens their incentive to deliver projects quickly and efficiently and to manage long-term operations and maintenance costs. To obtain private investment in surface transportation projects, a private entity borrows money from banks,





issues bonds, and/or provides equity investment. Because of the costs of putting together such deals, private financing tends to be more suitable for large and costly projects rather than smaller, more routine ones. The public sector often retains a significant role in public-private partnerships, but their role changes. Instead of designing, overseeing, and managing a project, the risk of delivering and operating the project shifts to the private sector. This allows the public sector to focus on setting the project's scope and performance specifications, managing the contract, and monitoring the project's performance.

Public-private partnerships involving private financing are often funded over the long-term through a project-related revenue stream from sources that may include vehicle tolls, container fees, or building rents in the case of transit station development. However, public-private partnerships have also proven successful for projects that are non-tolled or otherwise have insufficient or uncertain project-related revenue streams. In recent years, public-private partnership projects in Florida, California, Ohio, and Pennsylvania have all used

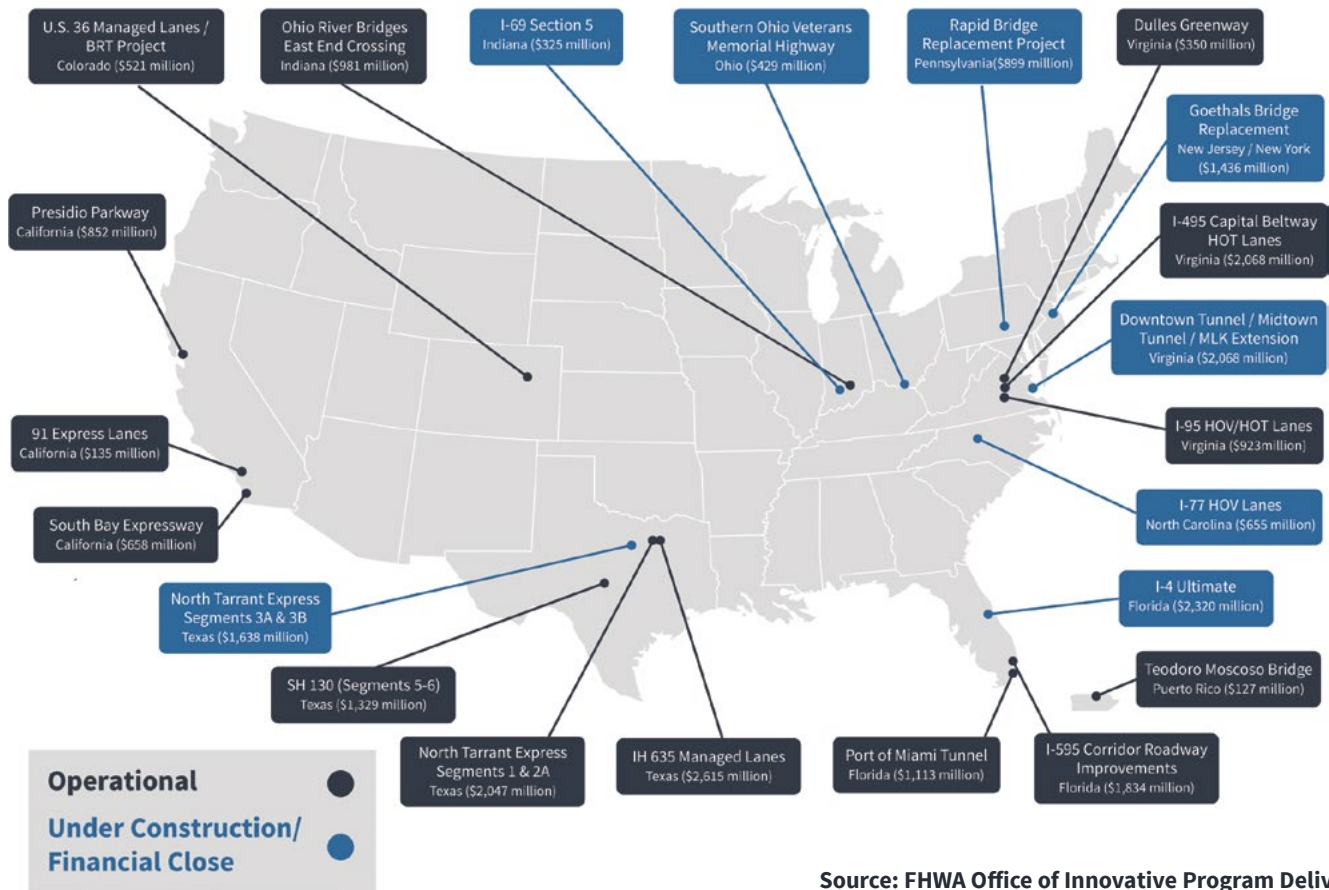
Benefits of Public-Private Partnerships

-  Transfer risks associated with delivering a project from the public sector to the private sector.
-  Accelerate project delivery by raising money through private sector equity and debt to fund projects.
-  Strengthen incentives to deliver projects on-time and on-budget.
-  Strengthen incentives to manage the life-cycle costs of a project.
-  Empower private sector to develop innovative solutions to deliver projects efficiently and provide high quality services.

Barriers to Public-Private Partnerships

-  Some States lack effective legislation to authorize the use of public-private partnerships to deliver projects.
-  Federal tax law does not treat privately financed public infrastructure and taxpayer subsidized public debt equally.
-  Lack of investor confidence in the ability of the public sector to administer fair, competitive procurements.
-  Lack of a pipeline of projects that would benefit from private investments.
-  Transportation agencies lack the financial skills and organizational capacity to effectively develop, evaluate, and procure public-private partnership projects.

Major Highway Concessions in the U.S.



Source: FHWA Office of Innovative Program Delivery

availability payments. In an availability payment model, the private partner receives scheduled payments from the project sponsor over the period of the contract. Usually the payments are tied to completing construction milestones or for meeting operations and maintenance performance standards. Availability payments are a way to deliver non-tolled projects using a concession agreement, but public agencies may choose to use availability payments on tolled facilities as well, if, for example, an availability payment would make bids more competitive or help to keep toll rates down.

Project sponsors with experience delivering concession projects have identified several success factors that can help agencies deliver successful concession projects. First, in States with significant track records of delivering successful concession projects, State legislation establishes clear authority and flexibility for project sponsors to design performance-based concession contracts that align public and private interests. Second, project sponsors carefully screen proposed projects and compare options for project delivery to ensure that any concession agreement maximizes value for the

public. Third, project sponsors ensure that procurement processes foster fair competition based on best value. Finally, project sponsors work closely with private partners to seek input from the public and keep them informed throughout the procurement and delivery process.

The Port of Miami Tunnel in Florida is an example of a successful availability payment concession. The tunnel connects the Port, which is located on an island in Biscayne Bay, to I-395. The complex project presented major technical risks as it involved the construction of the largest diameter bored tunnel in the U.S. in uncertain geological conditions under the Bay. Completed in 2014, the tunnel greatly improves access to the port while removing cargo trucks and cruise line buses from congested city streets.

Another example of an availability payment public-private partnership is the Presidio Parkway in San Francisco. The Presidio Parkway replaces a 1.6-mile segment of Route 101 that is the southern access to the Golden Gate Bridge. The project improves the seismic

safety of the structure and reduces congestion on the roadway. Two underground tunnel segments topped by parkland help to integrate the area with the surrounding Presidio National Park and allow pedestrians and cyclists to cross over it unimpeded.

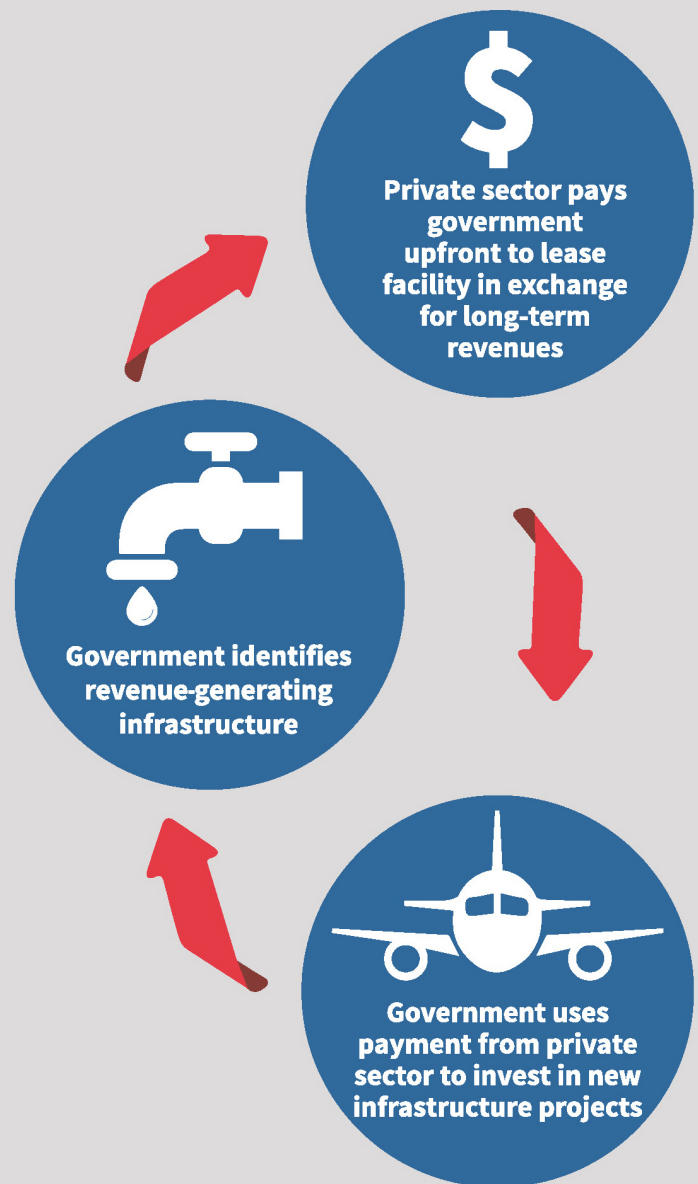
Public-private partnerships can provide transportation solutions for rural areas as well. The \$899 million Rapid Bridge Replacement Project in Pennsylvania is replacing more than 500 structurally deficient bridges, many in rural areas of the State. Delivering the project as a public-private partnership accelerated the replacement of the bridges and facilitated efficiencies in the design and construction of bridge components resulting in a 20 percent cost savings over the 25-year concession period.³⁹

Transportation agencies have also used public-private partnerships to deliver managed lane projects that provide reliable, congestion-free capacity to transit riders and motorists. In Northern Virginia, the Virginia DOT entered a 76-year concession agreement with a private partner to expedite the construction of 29 miles of dynamically tolled reversible managed lanes along the congested I-95 corridor.⁴⁰ Open to the public in December 2014, the I-95 express lanes provide a new option for motorists who choose to pay a toll to access congestion-free lanes with reliable travel times as well as expanded service for carpoolers, transit, motorcycles, and emergency responders who can use the lanes for free.

Since 1992, 28 highway concession projects of all types have been completed in the U.S., for a total project value of \$35.6 billion.⁴¹ Long-term concessions have also been used in a limited number of cases, to build or improve infrastructure for airports, ports, freight rail, and transit. Private investment in transportation infrastructure is much more widespread in countries outside the U.S.

Public-private partnership projects in the United States have been limited for several reasons. First, since public-private partnerships are procured differently from how projects are traditionally procured, States must have public-private partnership enabling legislation in place to fully take advantage of this approach. Second, many transportation agencies prefer to use taxpayer-subsidized public debt to finance projects as it is cheaper than private debt. Third, only certain projects are appropriate for public-private partnerships. These are typically large projects with complex and transferable risks that the private sector is well-positioned to manage. Finally, project sponsors need the ability to

Australia's Asset Recycling



In 2016, Australia used \$5 billion in Federal funding incentives to stimulate more than \$20 billion in infrastructure investments through asset recycling.

Source: Bipartisan Policy Center

raise dedicated revenue for a project through tolls or other means, or make long-term availability payments to the private partner.

Asset Recycling

Some public agencies have leveraged private investment by leasing revenue-generating transportation assets, such as toll roads. Such lease arrangements provide the private sector the opportunity to improve the management of those assets while generating revenue to make urgently needed investments in socially beneficial projects. Also known as asset recycling, the long-term lease or sale of underutilized public assets to the private sector can help both rural and urban communities generate revenues to pay for needed infrastructure upgrades.

“The United States version of asset recycling could be the cornerstone to leveraging significant investment from the private sector and creating modern infrastructure.”

– Bipartisan Policy Center⁴²

Asset recycling is a form of contract that allows private investment in infrastructure. In an asset recycling model, the public owner of an existing infrastructure asset leases it to the private sector for a long term (typically more than 30 years) and uses the proceeds from the lease for new, “greenfield” infrastructure. Typically, the assets leased to the private sector generate a profit through some form of user fees.

In this setting, the private sector purchases the rights to those long-term revenues for an upfront payment and develops an agreement to operate and maintain the asset in good condition for a significant period of time. These types of assets are potentially attractive to institutional investors, such as pension funds, which are interested in reliable, long-term sources of revenue.

Infrastructure Initiative Proposal: Establish an Infrastructure Incentives Program

The Administration proposes the establishment of a \$100 billion Infrastructures Incentives Program. This competitive program will provide incentive grants for infrastructure projects that generate significant

economic and social returns on investment and create non-Federal revenue streams, leverage Federal investments, assure long-term performance of capital investments, modernize project delivery practices, and incorporate new technologies.

Applications will be evaluated based on the following criteria:

- The dollar value of the project or program of projects;
- Evidence supporting how the applicant will secure and commit new, non-Federal revenue to create sustainable, long-term funding for infrastructure investments;
- Evidence supporting how the applicant will secure and commit new, non-Federal revenue for operations, maintenance and rehabilitation;
- Updates to procurement policies and project delivery approaches to improve efficiency in project delivery and operations;
- Plans to incorporate new and evolving technologies; and
- Evidence supporting how the project will spur economic and social returns on investment.

Infrastructure Initiative Proposal: Reforms to Unlock Private Investment in Infrastructure

In addition to establishing the Infrastructure Incentives Program, the Administration proposes the following reforms to current Federal law that will further unlock private investment in infrastructure.

- **Reduce barriers to alternative project delivery for airports.**
Private ownership and management of airport operations are relatively rare in the United States, where most airports are owned by local governments and regional authorities. Only 2 percent of airports have some private ownership, compared to about 40 percent of European airports that are wholly or partially owned by private shareholders.⁴³ Many airports generate substantial revenues without significant taxpayer investment making them promising candidates for asset recycling or long term leases to private partners—where the revenues are dedicated to modernizing infrastructure.



In recent years, public agencies have used privately financed performance-based contracts to rehabilitate and modernize airport facilities. For example, Puerto Rico partnered with Aerostar to lease the Luis Munoz Marin International Airport for 40 years. Under the agreement, the airport has seen considerable investment, with significant terminal renovations and the introduction of an automated baggage scanning system. The Port Authority of New York and New Jersey recently entered into a \$4 billion agreement to use private financing to replace the LaGuardia Central Terminal Building. The private partner will operate the terminal for 35 years.

The current law (49 U.S.C. 47134) provides that 65 percent of carriers at an airport must approve privatization under the pilot program on privatization of airports. This provides air carriers the ability to overturn an airport's desire to privatize. This proposed reform will allow airport privatization to be approved by a majority vote of carriers. The current pilot program is also limited to 10 airports and only one large hub airport. This cap will be removed to reduce barriers to alternative project delivery for airports.

- **Eliminate constraints on use of public-private and public-public partnerships in transit and codify the Expedited Project Delivery for Capital Investment Grants Pilot Program.**

In recent years, U.S. DOT Federal Transit Administration (FTA) has moved to address impediments to the use of public-private partnerships to deliver transit projects. This has resulted in transit agencies using these partnerships to deliver two major new transit lines: Denver's Eagle public-private

partnership and Maryland's Purple Line. However, transit public-private partnership projects remain far less common than highway public-private partnerships.

Current law (49 U.S.C. Chapter 53 and its implementing regulations) creates impediments to greater use of public-private and public-public partnerships in transit capital projects. Eliminating these constraints will encourage greater investment in transit capital projects.

Currently, FTA's framework for public-private partnerships is a non-codified pilot program limiting the number of projects eligible to participate and caps the Federal share at 25 percent. This program requires that participants utilize existing union staff. This limits the flexibility of private partners to efficiently deliver operations and maintenance services.

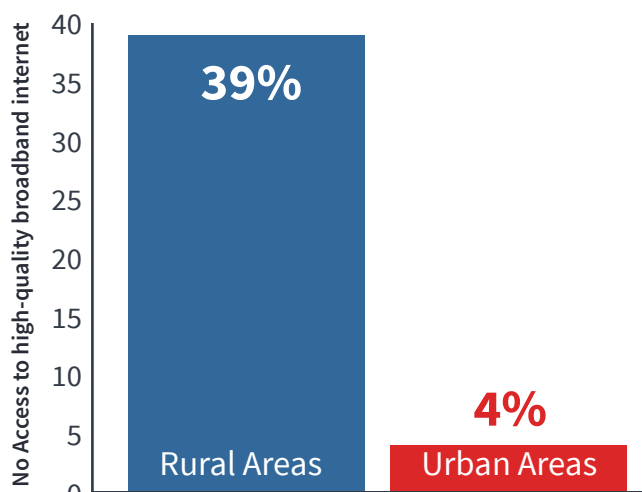
To attract private investment and expedite delivery of transit projects, the Expedited Project Delivery for Capital Investment Grants Pilot Program will need to be codified without the limitations on the number of projects authorized or labor restriction imposed by the FAST Act. Increasing the Federal share of eligible cost from 25 percent to 50 percent will help to further incentivize use of the program.



Rural Infrastructure

The Nation relies on rural America for food, water, and other natural resources that fuel our economic growth. Rural areas are also home to many of our most treasured National Parks and recreation areas. Many of the core rural industries, including forestry, farming, fishing, energy, and mining, as well as manufacturing, are freight-intensive and their success depends on a robust rural transportation system of roads, bridges, railroads, and airports.

A strong rural transportation system is essential for connecting rural America to markets and jobs, reducing the costs of freight, increasing tourism, and supporting local businesses and economic growth. However, our rural transportation system lacks adequate capacity and safety features and many facilities have fallen into disrepair. Underinvestment in infrastructure has impeded economic recovery in rural areas and has left many Americans facing growing economic hardship and isolation. Current Federal infrastructure funding programs and diminished State, county, and local resources are not enough to address infrastructure needs.



In 2016, 39 percent of rural Americans did not have access to high-quality broadband internet. In urban areas, the rate was 4 percent.

To address rural infrastructure issues, the Administration proposes establishing a rural infrastructure program to make \$50 billion available for capital projects that address unmet infrastructure needs in rural areas.

Rural communities have higher unemployment and poverty rates and lower median incomes than urban areas. While urban areas, in general, have recovered from the economic recession, rural area employment levels continue to lag behind pre-recession levels. There are fewer jobs in these areas today than there were 10 years ago.⁴⁴ An aging population and the loss of manufacturing jobs have slowed the recovery in many of these communities.

The networks of roads, rails, and waterways in rural areas of our Nation are in a state of decline. In 2016, 10.3 percent of all rural bridges were structurally deficient.⁴⁵ The state of disrepair reaches beyond the

Source: Brookings Institute



crashes result in fatalities at the scene of the accident, as first responders must travel greater distances to reach these accidents.⁵⁰ Lack of access to care has resulted in health disparities between urban and rural regions.

More businesses closed than opened during the period of recovery after the Great Recession in 90 percent of the largely rural counties that exhibited high levels of distress and low levels of economic mobility.⁵¹ Strengthening the ties between communities and employment and job training centers, healthcare and other services, and other opportunities is a necessary component to stimulating economic growth and improving quality of life in rural America. The poor condition of roads, reduced reach of rail and air routes, and lack of access to broadband internet all contribute to increasing isolation.

The most vulnerable members of rural communities, including persons with disabilities and the elderly, often rely on diminished public transportation services to get them to essential services. Reliable, affordable access to public or otherwise accessible transportation services is imperative for these populations in order for them to receive the care they need. For example, investments in digital infrastructure and development of online services, increased support for rural public transportation authorities, or partnerships with ridesharing companies that can provide access to those without other means are steps in the right direction.

There is no silver bullet—rural America contains diverse regions and communities that require different types of investment and support. Fostering economic growth and prosperity in rural America cannot be accomplished through infrastructure alone—as key problems touch on issues related to healthcare, job training, and economic development. Agencies and stakeholders across sectors and types of governments need to work together on a multifaceted, coordinated approach to address the array of challenges facing rural areas and identify sustainable solutions. The Administration is committed to channeling significant investment via incentive programs and strategic partnerships to rural America and supporting infrastructure projects that result in measurable increases in economic growth, employment, and competitiveness.

Interstate and National Highway System—many local roads and more bridges are in worse condition than the national network. Access to airline routes and broadband internet is also severely lacking. In 2016, 39 percent of rural Americans did not have access to high-quality broadband internet. In urban areas, the rate was 4 percent.⁴⁶

In 2016, an estimated 19 percent of the U.S. population lived in rural areas; however, rural fatalities accounted for 51 percent of all traffic fatalities.⁴⁷ Safety issues affect State and local road systems alike. Safety improvements and upgrades, in addition to communications campaigns and other tactics, are needed across the entire transportation network to reduce the number of fatalities and injuries on roads in rural communities.

Rural populations travel 40 percent more miles per year than their urban counterparts, which can cause increased maintenance costs.⁴⁸ The level of access to basic health and medical care illustrates the problem this creates. Since 2010, 83 rural hospitals have closed,⁴⁹ requiring rural patients to travel even farther to appointments. Furthermore, a greater number of rural

Infrastructure Initiative Proposal: Establish a Rural Infrastructure Program

The Administration proposes the establishment of a rural infrastructure program to invest \$50 billion in projects that enable prosperous rural economies, facilitate freight movement, improve access to reliable and affordable transportation options, and enhance health and safety for residents, businesses, and visitors.

This rural infrastructure program will provide formula funds and rural performance grants to States for rural infrastructure projects. It will be designed to empower local communities with authority and target funding where it is severely lacking, including infrastructure needs in Territories and on Tribal lands. Under this program, States will be incentivized to partner with local and private investment for completion and operation of rural infrastructure projects.

To meet rural infrastructure needs, the program will:

- **Improve rural American infrastructure condition and capability:** Support for capital improvements and outcomes-driven planning efforts that enhance private sector productivity, modernize existing infrastructure systems, and prioritize projects essential for efficiency and safety.
- **Expand access to markets, customers, and employment opportunities:** Support for projects that sustain and grow rural business revenue and rural personal income.
- **Enhance regional connectivity:** Support for public and private interregional and interstate rural projects and initiatives that reduce costs for sustaining safe, high-quality rural communities.
- **Increase rural economic growth and competitiveness:** Support for closing local infrastructure gaps in development-ready areas to attract manufacturing and economic growth to rural America.

The rural infrastructure program will allocate 80 percent of the funds available under the program across State Governors via formula distribution. For these funds, the Governors will have discretion to choose the investments to be able to respond to the unique high-priority rural needs of their States. Funds made available under this program will be distributed as block grants to be used for core infrastructure projects in rural areas with a population of less than 50,000.

Maximizing investment in rural America means:

- ✓ Improving **infrastructure condition**
- ✓ Expanding access to **markets and resources**
- ✓ Incentivizing **local and private investment**

The remaining 20 percent of funds under this program will be reserved for rural performance grants. In order to qualify for rural performance grants, a State will be required to:

- Publish a Rural Infrastructure Investment Plan (RIIP) that demonstrates how the identified rural projects align with the evaluation criteria in the infrastructure incentives program, including State, local, and private sector investment in eligible projects;
- Demonstrate the quality of any investments planned with rural performance funds;
- Demonstrate performance in leveraging formula distributions with Federal credit programs and rewarding rural interstate projects through the infrastructure incentives program; and
- Demonstrate the State's performance in utilization of rural infrastructure program formula funds, consistent with the RIIP based on stated general criteria.

In addition, a portion of program funding will be set-aside to provide dedicated funding to address the infrastructure needs of Tribes and U.S. Territories.

Transformative Projects

In order to have the world's best infrastructure system, we need to boldly pursue innovative projects and technologies. However, the most transformative of these technologies are often underfunded because the perceived risks are too high, the startup costs are too great, and the projected returns on investment are too far into the future to be attractive to private investors. The Federal Government has the ability to catalyze the development of these projects by sharing these risks with private firms as the technology is developed and share value as projects are constructed and become operational. These projects are a win-win. The public receives cutting-edge, transformative infrastructure, while the private sector is able to translate conceptual ideas into reality.

The Administration proposes to invest \$20 billion in game-changing approaches to delivering transportation projects and services through the establishment of a Transformative Projects Program, which will provide competitive grants and technical assistance for bold, innovative, and transformative infrastructure projects that could dramatically improve infrastructure.

Transformative Technologies

Over the next 30 years, advances in data collection, computing, navigation systems, communication and mobile technologies, and robotics have the potential to dramatically change the way we travel and deliver goods and services. Technologies emerging today promise to make our future transportation system safer, more reliable, more efficient, more environmentally sustainable, and more convenient.

Many new transportation technologies have been developed and commercialized through private sector research and innovation; however, government has an essential contribution to make through research, regulation, and policy to support their development. Developing these new and unproved technologies comes at a higher risk than does more traditional transportation infrastructure. Private firms often are able to conceive of theoretically possible plans for transformative technologies, but may have trouble raising the capital necessary for startup costs or navigating the regulatory and permitting processes that often delay bringing their technology to market, adding additional financial risk for firms.

As technology continues to advance, public agencies will need to anticipate, accommodate, and incentivize innovation through constructive partnerships with the private sector. At the same time, as new technologies increase our reliance on ever more sophisticated and complex systems, public agencies will need to engage with the private sector to understand and mitigate the risks associated with new technologies to ensure that our transportation system remains safe and secure. Rapidly evolving technology will demand government flexibility: regulations may be necessary, but they must be flexible, adaptive, and performance-based in order to advance beneficial innovations, not prevent them.

The following technologies are provided only as examples of what could potentially qualify under this program, and may or may not eventually be successful in pursuing any available funding.

Automated Vehicles and Networks

We are on the cusp of personal vehicles being radically changed forever. An automated vehicle is a vehicle in which at least one control (e.g., steering, speed control) is managed by an automated system composed of sensors and software. The term automated vehicle can apply to an array of capabilities, ranging from driver assistance systems that may only govern one aspect of vehicle control to fully self-driving vehicles that require no input from a human occupant. Highly automated vehicles are vehicles where the automation can control both steering and speed and monitor the driving environment. It is likely that highly automated vehicles capable of operating on limited access highways will be commercially available by the end of the decade. However, it could take decades before highly automated vehicles constitute a significant portion of the vehicle fleet.

The development and adoption of automated vehicles will have major implications for our society, our infrastructure, and U.S. DOT mission and programs. Vehicle safety regulations will need to adapt to ensure the safety of vehicles that run on frequently updated software and rely on delicate sensor systems. Infrastructure design, maintenance, and operation may need to be adapted as well to ensure the safety of road users. Much research and investment is needed to develop not only the technology, but the infrastructure and policies that will be needed to transform vehicle travel.

New Rail Technologies

The technological advancements of the 21st century are beginning to yield new and inventive modes of transport. From high-speed vacuum tubes to underground, high-speed electric skate technology and personal magnetic levitation (maglev) operations, transportation is continuing to evolve beyond simply personal vehicles and public transit. These technologies promise to develop high-speed, lower-cost solutions to moving people and goods in addition to reducing roadway congestion and carbon emissions.

For example, hyperloop technology currently under development uses vacuum tubes to reduce air resistance and transport goods and passengers over magnetic tracks at speeds projected to reach over 700 miles per hour. The technology could initially be used to transport high-value freight quickly and efficiently, from an offshore facility at a port to an inland intermodal facility.

Unmanned Aircraft Systems

Unmanned aircraft systems technology has the potential to create efficiencies in our infrastructure asset management strategies, significantly reducing the amount of time and labor necessary to maintain our Nation's roads and bridges, and other physical assets. Drones can be equipped with high-definition cameras and used to scan conditions of physical objects. Data can be collected and transferred to databases much quicker than manual scans by humans. Particular efficiencies can be gained in using drones to assess areas that are hard or dangerous to reach.

Private technology could play a key role in developing such a process. For example, government agencies could contract with firms specializing in using drones for asset management and data collection. These companies produce the necessary data about asset conditions efficiently and cheaply. Government units are then able to draw from these datasets to make decisions about prioritized investments and most urgent local needs. However, current regulations limit the ability of the private sector to explore the potential benefits of the technology.

Cutting-Edge Technology Advances the Way Americans Travel

Private companies across the Nation are developing transformative technologies that have the potential to greatly change the way we move. Unmanned aircraft systems technology is revolutionizing the aviation industry. More than one million drones have been registered for use in the U.S. Intercity travel times could be halved using technology such as maglev trains.





The goal of this program is to fund novel projects that can:

- Significantly improve performance from the perspective of availability, safety, reliability, frequency, and service speed;
- Substantially reduce user costs for services;
- Introduce new types of services; and
- Improve services based on other related metrics.

The program will be administered by the U.S. Department of Commerce with an interagency selection committee composed of representatives of relevant Federal agencies.

Funding under this program would be available under three tracks, each of which would be designed to support a distinct phase of the project life cycle: demonstration, project planning, and capital construction. Applicants could apply for all tracks or for individual tracks.

Applicants selected for award under the transformative projects program would enter into a partnership agreement with the Federal Government, which would specify the terms and conditions of the award, major milestones, and other key metrics to assess performance.

Technologies to Speed Project Delivery

Private firms are developing technologies that can significantly speed up the process by which infrastructure is built. In recent years, prefabricated, modular infrastructure technology has allowed governments in Europe and Asia to build new roads, bridges, and tunnels at dramatically reduced times—even beginning and completing a tunnel or bridge project within the course of one weekend. Several companies around the globe have recognized tunnel boring, which is currently prohibitively slow and costly for most municipalities to take on, as a technology that is ripe for innovation.

Infrastructure Initiative Proposal: Establish a Transformative Projects Program

The Administration proposes the establishment of a \$20 billion Transformative Projects Program. Under this program, Federal grant funding and technical assistance will be made available on a competitive basis for commercially viable projects that, with Federal support, are capable of generating revenue, provide net public benefits, and have a significant impact on the Nation, a region, State, or metropolitan area. The program will provide funding to ambitious, groundbreaking projects that will fundamentally transform the way infrastructure is delivered or operated.

Innovative Financing to Stimulate Investment

Federal lending programs are critical to supporting innovative and efficient approaches to delivering infrastructure projects; they provide incentives for State and local agencies, as well as the private sector, to support projects. Lending programs promote projects that provide public benefits and can be delivered efficiently.

The Administration proposes to expand existing Federal credit programs to address a broader range of infrastructure needs, giving State and local governments increased opportunity to finance major, complex infrastructure projects with innovative financial structures.

The U.S. DOT plays an important role in supporting innovative financing for a wide range of transportation projects across the country through programs such as: the Transportation Infrastructure Finance and Innovation Act (TIFIA); Railroad Rehabilitation and Improvement Financing (RRIF); and tax-exempt qualified PABs.

The Administration proposes dedicating \$20 billion to increase the capacity of existing Federal credit programs and broaden the use of PABs.

These finance programs help to advance major, complex infrastructure projects by giving State and local governments increased opportunity to finance large-scale infrastructure projects under terms that are more advantageous than in the financial market. Additionally, the Administration proposes to expand the use of PABs. These provisions will provide tools and mechanisms for market participants to invest in public infrastructure, thereby improving core infrastructure.

Infrastructure Initiative Proposal: Federal Credit Assistance

The Administration's Initiative will provide additional budget authority for credit assistance provided through TIFIA. The TIFIA program, administered by the U.S. DOT Build America Bureau, provides Federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to partially finance surface transportation projects at low interest rates. Highway, bridge, public transportation, intercity passenger bus and rail, intermodal connector, transit-oriented development, and intermodal freight facility projects are all eligible for TIFIA assistance. Loans are repaid by revenues generated

by the projects or committed to the project by sponsor agencies. TIFIA financing is an attractive option for project sponsors because funds are provided at the low, fixed Treasury rate and the loans are long-term with repayment deferment available and flexible amortization terms.

The TIFIA program is essential to leveraging private equity to finance public-private partnerships. Loans provided by U.S. DOT through the TIFIA program have supported more than 20 transportation public-private partnership concession projects to-date, representing over \$30 billion in total project costs, nearly \$9 billion in TIFIA loan value, and over \$4 billion in equity investment. The TIFIA program has attracted an average of \$277 million in private debt and/or equity for projects that would otherwise be delayed or deferred due to lack of funding.⁵²

• Expand TIFIA to ports and airports.

TIFIA is a critically important Federal program for supporting surface transportation public-private partnerships. However, under current Federal law, airports and non-Federal maritime ports are not eligible for TIFIA credit assistance. This makes it more difficult for project sponsors to pursue alternative project delivery and to implement critical port and airport infrastructure improvements.

The project eligibility in the TIFIA statute (23 U.S.C. 601) will need to be amended to enable TIFIA to offer loans and other credit assistance to non-Federal maritime ports and airport projects, such as renovated or new passenger terminals and related facilities, and to prioritize port and airport projects carried out through performance-based infrastructure delivery. This will incentivize the use of public-private partnerships for airports and ports and will accelerate overall improvements in airport and seaport infrastructure.

Infrastructure Initiative Proposal: Railroad Rehabilitation and Improvement Financing Program

The Administration's Initiative will provide additional budget authority for credit assistance provided through RRIF. The RRIF program, like the TIFIA program, is administered by the U.S. DOT Build America Bureau. It provides direct loans and loan guarantees for up to 100 percent of a project's cost for a maximum term of 35 years. One-fifth of authorized funds are reserved for freight projects that benefit non-Class I railroads, which

TIFIA Financing Project Benefits

- Leverage \$1 of TIFIA funds to support a \$14 loan, resulting in infrastructure investment of up to \$40.
- Encourage new revenue streams for private sector co-investment and debt enhancement.
- Use TIFIA's attractive interest rates and repayment terms to save significant financing costs.
- Accelerate delivery of significant transportation projects by an average of 13 years.



Source: TIFIA 2016 Report to Congress

promote rural connectivity. Eligible RRIF applicants include State and local governments, government-sponsored authorities and corporations, railroads, joint ventures of at least one of the other entities listed, freight rail shippers seeking to connect to a second railroad, and interstate compacts.

RRIF finances projects that purchase or improve rail facilities and equipment, build new rail or intermodal facilities, and/or develop commercial and residential property near a train station. RRIF will also refinance debt used to purchase or improve rail facilities and equipment in a previous project. Through 2017, there have been 36 RRIF loan agreements totaling \$5.1 billion.

Currently, RRIF law does not provide Federal subsidies or incentives for the credit risk premium, which covers the risk to the government in making the loan, so the project sponsor is always required to pay that amount upfront.

- **Subsidize credit risk premium payments for RRIF loans for short-line freight and passenger rail.**

Under the current RRIF law (45 U.S.C. 822), project sponsors are required to pay a credit risk premium at the time of disbursement. The cost of the credit risk premium is often cited as one of the reasons that project sponsors are reluctant to pursue RRIF financing. A Federal subsidy to cover the RRIF credit risk premium will incentivize more project sponsors to pursue RRIF credit assistance. This, in turn, will support more rail infrastructure development.

Infrastructure Initiative Proposal: Private Activity Bonds

PABs allow private investors in infrastructure to take advantage of tax-free financing, thereby reducing the costs of privately financing public infrastructure. The U.S. DOT is responsible for making PAB allocations to qualified transportation projects. As of late 2017, more than \$10 billion had been issued or allocated to support transportation projects involving private investment. The Administration proposes to create flexibility and broaden eligibility to facilitate the use of PABs. These provisions will assist project sponsors seeking to leverage private financing to advance public-purpose infrastructure projects.

- **Require public attributes for public infrastructure projects.**

PABs extend tax exemptions to private enterprises for public purpose infrastructure projects. Projects that do not provide benefits to the public should not receive these such tax benefits. Requiring public infrastructure projects to have the following public attributes would ensure the public nature of eligible infrastructure:

- Either State or local governmental ownership or private ownership under arrangements in which rates charged for services or use of projects are subject to State or local governmental regulatory or contractual control or approval; and
- Availability of projects for general public use (e.g., public roads) or provision of services to the general public (e.g., water service).

- For purposes of the governmental ownership alternative under the public attributes requirement, a new safe harbor would treat a project as governmentally owned when a State or local governmental unit leases the project to a private business provided that (1) the term of the private lease is no longer than 95 percent (rather than 80 percent under the existing safe harbor) of the reasonably expected economic life of the project; (2) the private lessee irrevocably agrees not to take depreciation or investment tax credit with respect to the project; and (3) the private lessee has no option to purchase the project other than at fair market value.
- **Broaden project eligibility for PABs.**
Current Federal law includes a limited list of facilities eligible to be financed with tax-exempt bonds that are still subject to varying requirements, which restricts their usefulness. The definition of ‘public purpose’ projects eligible for PABs will be broadened to allow for a wide range of infrastructure projects including rural broadband service, flood control and storm water facilities, hydroelectric facilities, and environmental remediation on brownfield and Superfund sites. Types of transportation facilities eligible for PABs will include: airports, docks, wharves, maritime and inland waterway ports, waterway infrastructure, mass commuting facilities, roads, bridges, tunnels, passenger railroads, and surface freight transfer facilities.
- **Eliminate the Alternative Minimum Tax provision.**
The Alternative Minimum Tax (AMT) provision on PABs raises the costs of borrowing relative to traditional governmental municipal bonds. This creates inconsistent premiums for service providers and disincentives for borrowers to use these financing mechanisms. Eliminating the AMT will increase the utilization of PABs.
- **Remove the cap on Transportation PABs.**
The aggregate amount allocated to Transportation PABs cannot exceed \$15 billion under current law. This cap creates a barrier to the overall impact of PABs, as projects require long lead times to develop and no additional PABs may be issued once the cap has been exhausted. To provide certainty that PABs will be available to potential project sponsors, the Administration proposes lifting this cap and expanding eligibility of the transportation set aside to maritime and inland waterway ports and airports.
- **Provide change-of-use provisions to preserve the tax-exempt status of governmental bonds.**
Currently, when a public project is purchased by a private service provider, the tax-exempt status is eliminated when the private use limits on those bonds are exceeded. This creates a structural barrier to the private sector because that cost premium must be funded at closing. Adding change-of-use curative provisions to protect the tax-exempt status of governmental bonds in transactions involving private business use of projects financed with governmental bonds that otherwise would violate private business use limits on those bonds (e.g., private leases) would eliminate this private sector barrier. One curative action would allow alternative use of the project in a manner that would qualify as an infrastructure project eligible for a new issuance of PABs under the proposal. Another curative action would allow recycling of an amount equal to the total present value of a private lease of any project financed with governmental bonds into expenditures for governmental use within two years of the lease.
- **Provide change-of-use cures for private leasing of projects to ensure preservation of tax exemption for infrastructure projects.**
Currently, U.S. Treasury regulations allow certain change-of-use remedial actions to preserve the tax exemption for the tax-exempt governmental bonds upon a violation of private business use restrictions. Existing remedial actions include: defeasance of the outstanding bonds, “recycling” amounts received to qualifying government uses within two years, or alternative use of a project in a way that would qualify for tax-exempt bonds (including PABs) if retested at the time of use. These change-of-use cures do not include private leasing as a remedial action that would preserve tax-exempt status of the bonds. Therefore, the private sector market participants are not able to access the tax-exempt debt market for public infrastructure. Providing for tailored change-of-use remedial actions that preserve the tax exemption status upon private leasing of projects subject to outstanding tax-exempt government bonds or allowing “recycling” the total present value of the private lease payments into public and governmental uses within two years would ensure the assets retain the tax-exempt status of the associated debt obligations.

Infrastructure Initiative Proposal: State Infrastructure Banks

State infrastructure banks (SIBs) are revolving infrastructure investment funds for surface transportation that are established and administered by States. A SIB, much like a private bank, can offer a range of loans and credit assistance enhancement products to public and private sponsors of surface transportation projects. SIBs give States the capacity to leverage Federal resources by attracting non-Federal public and private investment. Despite their value as a tool for financing transportation projects, SIBs are underutilized. Currently only about a dozen States have very active SIB programs. This is due, in part, to the perpetual federalization requirements on the Federal funds typically used to capitalize SIBs.

- **Expand qualified credit assistance and other capabilities for SIBs.**

Providing additional incentives, such as reducing federalization requirements on funds lent to SIBs that are deployed locally, could encourage the use of SIBs. Expanding the legal capabilities of SIBs will provide States an important tool to leverage Federal funding, particularly for small, local, and rural projects.

Conclusion

Making wise investments in our infrastructure will allow us to attract private investment to support the public good and to target the areas of the country in greatest need of infrastructure revitalization. Fostering economic growth and prosperity in rural America cannot be accomplished through transportation infrastructure alone. Federal agencies across sectors need to align their direction and work with State and local partners to develop a multifaceted, coordinated approach to identify long-term solutions to the infrastructure challenges that face our country. The strategies outlined in this plan, combined with measures that improve the efficiency of government, will lead to a stronger future for all Americans.

Part III. Provisions for Infrastructure Improvements



The Administration's Infrastructure Initiative includes a number of specific reform proposals to reduce regulatory burdens and ensure the efficient use of Federal transportation funding. These common sense proposals will accelerate the delivery of much-needed infrastructure projects and eliminate barriers to innovation and investment. The proposals cover each of the transportation modes including highways, transit, rail, and aviation.

Multimodal

One proposal that will improve the efficiency of projects across all of the transportation modes is to:

- **Amend Titles 23 and 49 to provide targeted flexibility pertaining to the application of Federal requirements if the Federal share of a project is minimal.**

Under current law, even when a State or private sector project proponent provides the majority of the funding for a project, they still must seek review and approval under the laws of any Federal agency with jurisdiction. The additional procedures, costs, and

time delays associated with Federal requirements discourages infrastructure investments by State and local entities and private investors. It also contributes to delays in delivering needed projects even when the Federal interest is small. To address these challenges, the Administration proposes to eliminate Federal requirements where the project funding is primarily non-Federal and the Federal share is minimal. This reform will streamline the delivery of projects across all transportation modes.

Highways

Certain complex and unwieldy Federal regulations can sometimes slow the delivery of federally funded highway projects, raise their costs, and limit the use of innovative approaches to project delivery. In addition to the delays that sometimes occur, a perception problem has also developed about cumbersome Federal procedures, undermining confidence in our ability to deliver projects. To streamline the delivery of highway projects and demonstrate our commitment to project delivery, the Administration proposes the following reforms:

- **Authorize utility relocation to take place prior to National Environmental Policy Act (NEPA) completion.**

Most projects with pre-construction activities include utility relocation. Currently, Federal law requires any utility relocation to occur after completion of the NEPA process. This requirement can cause delays and cost escalation. The current law will need to be amended to allow utility relocation to take place prior to completion of NEPA with appropriate limitations to ensure the integrity of the NEPA process.

- **Raise the cost threshold for major project requirements to \$1 billion.**

Current law requires project sponsors to submit financial plans and project management plans to FHWA for all projects with estimated costs of \$500 million or more. For projects that are routinely managed by FHWA and State DOTs, these requirements do very little to ensure the success of the project. Amending 23 U.S.C. 106(h)(1) to raise the threshold for Major Projects from \$500 million to \$1 billion will remove unnecessary oversight requirements from smaller, less-complex projects that are routinely managed by FHWA and State DOTs.

- **Authorize Federal land management agencies (FLMAs) to use all of the contracting methods available under Title 23, when using Title 23 funds.**

Title 23 authorizes State DOTs and local governments to use a range of project delivery methods, such as electronic bidding, project bundling, and construction manager-general contractor, but at present, FLMAs are not authorized to take advantage of the efficiencies brought about by these methods. This proposal will allow FLMAs to take advantage of the efficiencies introduced by using these contracting methods.

- **Refund of Federal investment to eliminate perpetual application of Federal requirements.**

The use of Federal-aid highway funds in the construction of a highway or bridge involves the application of Federal requirements to the facility. Many of these requirements continue to apply to the facility after the project is complete. These requirements include restrictions on tolling; requirements pertaining to the location of a commercial plaza within the right-of-way of an interstate highway; restrictions on interstate access; and compliance with size and weight standards, highway beautification standards, and high-occupancy vehicle lane operation standards.

These perpetual Federal requirements can inhibit a State's ability to obtain value from the facility and flexibility with respect to its future operations and maintenance. In the past, whenever a State wished to be released from the application of these requirements, Congress enacted a specific statutory provision that permitted the State to refund the Federal investment in that facility. Upon repayment of Federal funds, the State was relieved of compliance with the Federal requirements that attached to the facility.

Amending the law to provide general authority for States to repay the Federal investment in a facility will provide States with the ability to obtain value from their assets and flexibility in how their highways and bridges are otherwise operated and maintained. The repayment of Federal funds invested in a facility will be the actual amount of Federal investment, unadjusted for inflation. Any repayment of Federal funds will be credited to the State's unobligated balances and available for reobligation under the Surface Transportation Block Grant Program.

- **Provide small highway projects outside of highway right-of-way with relief from Federal requirements.**

Currently, some projects funded under the Surface Transportation Block Grant Program must be treated as major highway projects, even if they are not located within the right-of-way of a Federal-aid highway. This means that small, simple projects, such as those typically eligible as transportation alternatives, are often delayed by lengthy procurement procedures and Federal requirements that are more appropriate for large, complex projects.

Amending this requirement for smaller projects that predominantly are outside the Federal-aid highway right-of-way will eliminate Federal procurement requirements for these infrastructure projects. This will allow States to use their own flexible and expedited procedures to implement these projects and will facilitate the employment of youth programs and volunteers on these projects.

- **Provide States flexibility to toll on interstates and reinvest toll revenues in infrastructure.**

Eliminating prohibitions on tolling will give States a cost-effective tool to improve travel time reliability while generating revenues that could be used to finance investments in transportation infrastructure and leverage private sector resources. While the requirements that currently exist to reinvest toll revenues in infrastructure will continue to apply,

surplus toll revenues could be used to massively upgrade our interstate system, as well as to support congestion management measures, such as transit investments, along interstate corridors. To this end, restrictions on the use of toll revenues for toll facilities that received Federal approval under the Surface Transportation and Uniform Relocation Assistance Act of 1987 will need to be lifted to allow the use of toll revenues on Title 23 projects similar to other toll facilities.

- **Allow for commercialization of interstate rest areas.**

In addition to reducing restrictions on tolling, current Federal law would be changed to allow States to generate additional transportation revenue through commercialization of interstate rest areas and rights-of-way. Allowing States to increase commercial activities at rest areas and requiring the revenues to be reinvested in the corridor in which they are generated will support new infrastructure investment and provide information on the actual impacts of commercialization. This approach will include a prohibition on charging fees for essential services, such as for access to restrooms or water.

Transit

The Federal Government provides approximately \$12 billion annually in funding for transit systems, accounting for 25 percent of total public funding for transit and 42 percent of capital funding.⁵³ To improve efficiency, increase local transit funding, and reduce dependence on Federal funding, transit agencies will be encouraged to use innovative approaches to project financing and delivery. Federal programs supporting transit will be designed use Federal funds to stimulate the use of sustainable local revenue sources and to encourage performance-based planning. To achieve these objectives, the following reforms to Federal transit laws and programs are proposed:

- **Require the use of value capture financing as a condition for receipt of transit funds for major capital projects (Capital Investment Grants).**

Transit agencies will be required to use sustainable revenue sources to fund capital projects, excluding Small Starts. Value capture can include joint development, land value taxes (LVT), tax increment financing (TIF), special assessment districts, transportation utility fees, development impact fees, negotiated extractions, air rights, etc. The FAST Act includes a broad definition of value capture to



mean "recovering the increased property value to property located near public transportation resulting from investments in public transportation" (49 U.S.C. 5302(24)). Using strategies such as TIF as a non-Federal match for grant programs allows future property tax revenues from development projects to be dedicated and utilized to support the project. In the TIF example, local jurisdictions create TIF districts and then raise funds from properties within those districts. Tax revenue from properties in the district is frozen at a certain level, and all revenue over the frozen amount is directed into the TIF fund. In recent years, several major transit projects, including Denver's Union Station, San Francisco's Transbay Transit Center, and the Dallas Area Rapid Transit (DART) light rail corridor, have used TIF districts to generate revenue.

Through amendments to 49 U.S.C. Chapter 53, transit agencies will be required to use value capture strategies as a prerequisite for Capital Investment Grants, excluding Small Starts projects. This will increase resources available for transit capital projects and decrease dependence on Federal grant programs for continued development.



Rail

Demand for moving goods by rail (tons) is projected to increase 24 percent by 2045.⁵⁴ In 2015, the private companies that own and operate the majority of the country's rail network invested \$17.4 billion in improvements to modernize and expand the capacity of the rail network and purchase equipment.⁵⁵

Projects include upgrades to bridges, tunnels, and tracks to accommodate double-stacked containers. Expanding rail capacity is a key strategy for improving our Nation's economic competitiveness and shifting freight movement from our Nation's highways to safer and more energy-efficient rail networks. The Administration believes that it is critical through reforms to target sources of delay and speed the process for putting these critical projects on the ground.

- **Apply FAST Act streamlining provisions to rail projects and shorten the statute of limitations to 150 days.**

The FAST Act directed the U.S. DOT to review all previously enacted highway permit reforms and project streamlining procedures under Title 23 of the U.S. Code and to apply them to railroad projects under jurisdiction of the U.S. DOT. This raises two concerns that need to be addressed.

First, the Act provides that the statute of limitations on claims against rail projects is two years instead of the 150 days provided to highway projects. Rail projects will need to be synchronized with highway projects and set at 150 days as well.

Second, some large railroad projects are administered by agencies outside of the jurisdiction of the U.S. DOT. These agencies and the railroad projects they approve are NOT subject to the FAST Act streamlining provisions under Title 23. All rail projects, regardless of lead agency, will be eligible to use FAST Act streamlining provisions.

Revising Title 49 to clarify that rail projects can take advantage of FAST Act streamlining provisions will help expedite rail project delivery. Amending the statute of limitations to 150 days will make the time frame for legal challenges on rail projects consistent with those for transit and highway projects. This is discussed further in Section IV.

Aviation

With nearly 20,000 airports and over 5.2 million square miles of domestic airspace, the United States leads the world in size and scope of its aviation infrastructure. Despite this, our airports have been neglected and our Nation's airspace has become a dizzying maze of outdated procedures supported by obsolete equipment. By allowing State and local governments greater access and flexibility to use Airport Improvement Program and Passenger Facilities Charge funds, as well as reforming our Nation's air traffic control system, the United States will once again lead the world in aviation technology and efficiency.

Reform AIP and PFC Policies and Processes

The FAA supports airport improvements through the Airport Improvement Program (AIP), which is funded



through the Airport and Airways Trust Fund (AATF). The AIP provides Federal grants for airport capital improvements that improve the safety, capacity, or sustainability of aircraft operations. Passenger facility charges (PFCs), a local fee imposed by airports on each boarding passenger, provide a source of non-Federal funds intended to complement AIP grants. PFCs can be used for a wider range of projects than AIP funding. PFCs can be applied to FAA-approved projects and can be used as a match for AIP grants or to finance debt on approved projects. PFCs are capped at \$4.50 per boarded passenger, with a maximum charge of \$18 per round-trip flight.⁵⁶ About \$3.3 billion in PFCs was collected by airlines on behalf of airports in 2017.⁵⁷

Under current Federal law, airports must apply to FAA for the authority to collect PFCs for use on approved projects, and if approved by FAA, airlines are required to collect PFCs and remit them to appropriate airport recipients. Each airport's application must list specific eligible projects that PFCs will fund and the total amount to be collected.

- **Extend streamlined PFC process from non-hub airports to small hub sizes.**

At present, small hub airports must provide extensive documentation in PFC applications to demonstrate the eligibility, justification, objective, project costs, significant contribution (large and medium hubs), and other requirements. For non-hub airports, the process is streamlined, requiring less information relating to project descriptions and costs. This simplified system will be extended to small hub airports, greatly reducing the burden of filing a PFC application.

- **Clarify the authority for incentive payments under the AIP.**

Currently, the AIP does not allow incentive payments for accelerated construction. This adds time to AIP projects, since they cannot pay for accelerated completion. Clarifying the authority under the AIP (49 U.S.C. 47110) to permit additional financial incentives, along with profit margin, for contractors will increase work efficiency and reduce project completion times.

- **Move oversight of AIP funds to post-expenditure audits.**

Current law (49 U.S.C. 47104-47106) requires FAA to review and approve grant applications under the AIP. This oversight sometimes causes delays in sponsors receiving funds assigned to their airports. Revising the statutory requirements for AIP to shift FAA oversight from grant applications to post-expenditure audits will expedite conveyance of funds to sponsors.

- **Create more efficient FAA oversight of non-aviation development activities at airports.**

FAA has conducted long-standing reviews of projects other than critical airfield infrastructure (including terminals, access and service roads, hangars, and other types of facilities) based on statutory requirements set forth in 49 U.S.C. Chapter 471, particularly Sections 47102-47113, as well as elsewhere including Section 50101. This results in a burden on FAA to review projects other than critical airfield infrastructure, and as a result slows project delivery. This proposal will amend the law (49 U.S.C. 47107) to clarify limitations on statutory requirements for FAA approval and oversight of non-aviation development activities at airports.

PART IV. Permitting Reform



Inefficiencies in the current environmental review and permitting processes can delay infrastructure investments, increase project costs, and prevent the American people from enjoying improved infrastructure in a timely manner. By enhancing the efficiency of the environmental review and permitting process, this Administration can transform our economy and improve the quality of life for its citizens, while ensuring robust protection of the environment.

At present, the environmental review and permitting process is complex, and it can be difficult for project proponents to understand which requirements apply to their projects. A variety of agencies hold responsibility for the implementation of different laws and regulations, meaning that project proponents and State agencies must potentially work with a large number of Federal agencies and complete multiple environmental documents to advance a single project. Examples of laws requiring coordination for transportation projects include the Endangered Species Act which both the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service administer, and Section 309 of the Clean Air Act, which the Environmental Protection Agency oversees. Moreover, the application of environmental regulations to infrastructure projects can be inconsistent and unpredictable across regions and time frames.

According to a 2014 GAO report, environmental impact statements (EISs) completed in 2012 had average preparation time of 4.6 years;⁵⁸ for EISs completed in 2016, the National Association of Environmental Professionals (NAEP) reports a completion time of 5.1 years.⁵⁹ These figures do not account for any planning or other preapplication activities occurring before the publication of a notice of intent or the environmental review and permitting activities by other Federal agencies that occur after the record of decision (ROD), meaning actual project construction might occur several additional years beyond the reported timelines. For complicated projects, the full process can take 10 or more years.⁶⁰

A key component of the Administration's Infrastructure Initiative is a set of reforms to the environmental review process that would protect the environment while at the same time delivering projects in a less costly and more time effective manner by:

- Creating a new, expedited structure for environmental reviews;
- Delegating more decision-making to States and enhancing coordination between State and Federal reviews; and
- Authorizing pilot programs through which agencies may experiment with innovative approaches to environmental reviews while enhancing environmental protections.

On August 15, 2017, the President signed Executive Order (EO) 13807 Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects (published on August 24, 2017). The EO charges the Federal Government to, as a whole, change the way it processes environmental reviews and authorization decisions to improve efficiency and effectiveness.

The EO requires that it be the policy of the Federal Government to:

- Safeguard our communities and maintain a healthy environment;
- Ensure that Federal authorities make informed decisions concerning the environmental impacts of infrastructure projects;
- Develop infrastructure projects in an environmentally sensitive manner;
- Provide transparency and accountability to the public regarding environmental review and authorization decisions;
- Be good stewards of public funds, including those used to develop infrastructure projects, and avoid duplicative and wasteful processes;
- Conduct environmental reviews and authorization processes in a coordinated, consistent, predictable manner in order to give public and private investors the confidence necessary to make funding decisions for new infrastructure projects;
- Speak with a coordinated voice when conducting environmental reviews and making authorization decisions; and
- Make timely decisions with the goal of completing all Federal environmental reviews and authorizations for major infrastructure projects within two years.

On September 14, 2017, the White House Council on Environmental Quality (CEQ) published a notice in the Federal Register that announced an initial list of actions it will take along with agencies to implement and respond to the EO. These strategies, as well as complementary best practices, are outlined in the sections that follow.

Existing Best Practices

At present, project proponents have a variety of tools at their disposal to streamline environmental reviews while protecting the environment, but the impact and utilization of these tools have fallen short. The following sections describe several of the most broad ranging and effective tools: planning and environmental linkages, use of funded positions, programmatic approaches, mitigation banking, and the Infrastructure Permitting Improvement Center. Expanding and institutionalizing the use of tools in combination with the implementation of the EO and the reforms described herein, will help ensure that Federal infrastructure decisions are made as efficiently and effectively as possible, while protecting public safety and the environment.

Planning and Environmental Linkages

Planning and environmental linkages (PEL) is an approach to transportation decision-making that: 1) considers environmental, community, and economic goals early in the transportation planning process; and 2) uses the decisions, information, analysis, and products developed during planning to inform the environmental review process. A PEL approach can improve project delivery time frames by minimizing potential duplication of planning and NEPA processes and creating one cohesive flow of information. PEL can also improve relationships between agencies and encourage resource and regulatory agencies to get involved in the early stages of planning, affording them an opportunity to help shape transportation projects. In addition, improvements to interagency relationships may help to resolve differences on key issues as transportation programs and projects move from planning to design and implementation, leading to a smoother environmental review process. Utilizing this approach will allow projects proponents to reduce the amount of time spent in NEPA, and reach some key agreements during the planning process.

To facilitate stronger linkages between planning and environmental review processes, the Administration proposes to eliminate requirements that cooperating agencies whose planning documents are incorporated into NEPA decisions must concur with their inclusion (23 U.S.C. 168(d)). Eliminating the requirement for concurrence by a cooperating agency would reduce duplication and delay and facilitate the integration of the NEPA process with the transportation planning process.



Funded Positions

Statutory authorities allow some regulatory and resource agencies to enter into funding agreements to support transportation agencies in activities that may help these agencies process projects in a more timely manner. Primarily, funds accepted under these authorities are used to hire additional personnel that serve as dedicated transportation liaisons—a primary point of contact within the regulatory or resource agency for the transportation agency. Liaisons can help to streamline environmental reviews since unlike many other staff at resource agencies they have the time and capacity to participate in early coordination on transportation projects and to dedicate time to other streamlining efforts, such as establishing programmatic agreements.

Moving forward, the Administration supports expanding the use of funded positions and similar tools. The new Infrastructure for Rebuilding America (INFRA) grant program sets up a framework to identify agency liaisons for projects selected to participate in the innovation and performance area of the program with an emphasis on environmental review and permitting. For INFRA award recipients that choose to participate in this approach, liaisons within each relevant resource agency will work closely and collaboratively with each other, project sponsors, and local field offices to steward projects participating in the effort through the environmental review process in a timely manner. The liaisons will help streamline the environmental permitting process by making consistent and timely permit determinations,

while ensuring compliance with the purposes and procedures of environmental permitting and review statutes.

Currently, some legal authority exists for project proponents to contribute funds to Federal agencies to support such reviews and decisions. However, there is no universal authority to accept funding from non-Federal entities for infrastructure projects generally. This limits the ability of Federal agencies to obtain additional resources to help with the permitting and review process, thus causing further delays in project development.

The Administration proposes to amend the law to provide broader authority for Federal agencies to accept funds from non-Federal entities to support review of permit applications and other environmental documents. This provision will provide additional resources to streamline project delivery and will help defray the costs of the environmental review. It will also include appropriate controls for potential conflicts of interest and will maintain the Federal agency's responsibility to conduct its review independently. Streamlining and expediting the hiring of professionals to plan, design, manage, and deliver infrastructure projects will contribute to meeting project delivery expectations and improving timelines and performance.

Programmatic Approaches

The vast majority of infrastructure actions proposed by a transportation agency are routine actions with generally predictable minor impacts to resources. Programmatic approaches (PAs) encompass a suite of techniques that allow regulatory and infrastructure agencies to set boundaries or thresholds for routine activities.

This results in an allowance for an abbreviated review process for either a “batch review” of multiple activities or a simple expedited review process for individual projects that fall within established parameters. With PAs, efficiency is increased by considering repetitive actions at a program level rather than by individual projects, and appropriate consideration for the environment is maintained. PAs help to standardize approaches among regional offices of regulatory agencies nationwide, improving predictability for project proponents. Programmatic agreements may be developed on a watershed, ecosystem, State, regional, or national scale.

The Administration proposes expanding the use of PAs and allowing Federal agencies to use nationwide permits (NWP) to comply with Section 404 of the Clean Water Act without involvement of the U.S. Army Corps of Engineers (USACE). Currently, Federal agencies are required to submit 404 applications to the USACE for projects that meet NWP requirements. The USACE then verifies that the NWP criteria is met, which can take several months and delay the advertisement and award

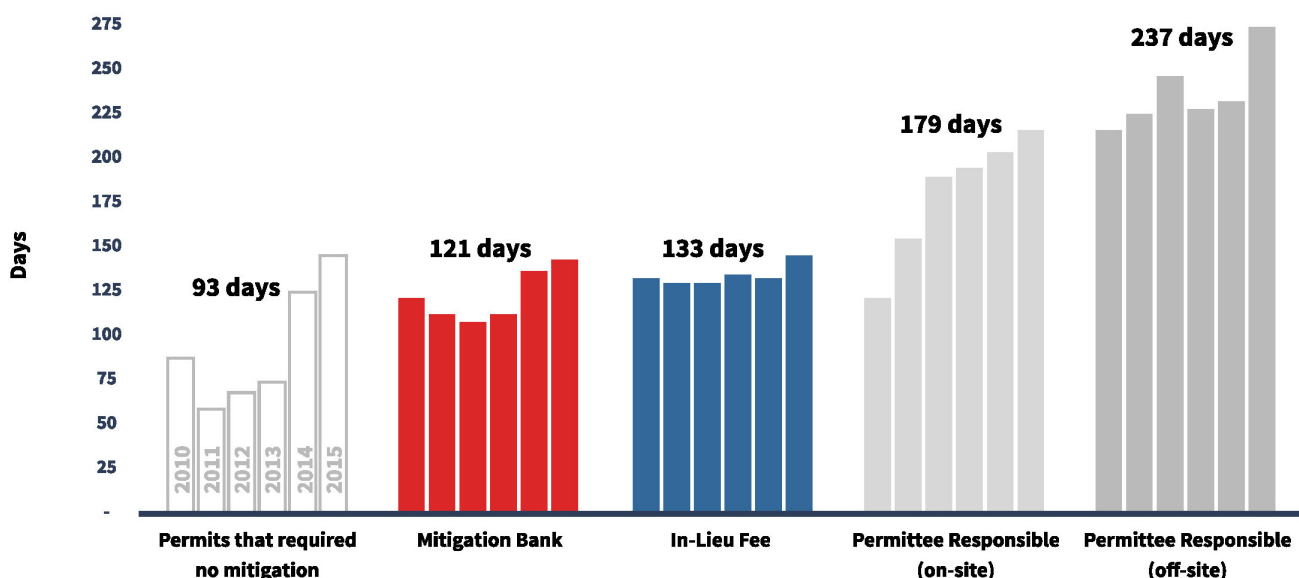
of a project. Eliminating the USACE verification process and allowing Federal agencies to rely on environmental experts within their own agencies to make decisions on NWPs will streamline the process and speed project delivery, without reducing the quality of Federal oversight.

Mitigation Banking

Mitigation banking is a private or public sector tool that can help real estate and public infrastructure developers to quickly navigate the compensatory mitigation process. A mitigation bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or, in certain circumstances, preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 of the Clean Water Act or a similar State or local wetland regulation.⁶¹ Mitigation banks are often established with private capital, and are utilized for both public and private projects.

A similar approach to mitigation banking is conservation banking, which involves conserving and permanently managing lands for species that are endangered or threatened, candidates for listing as endangered or threatened, or are otherwise species-at-risk. Under the Endangered Species Act, conservation banks can offset adverse impacts to these species that occurred elsewhere. Similar to mitigation banking, in exchange for permanently protecting the land and managing it for endangered or at-risk species, the FWS approves a

Time-to-Permit (average days) by Mitigation Method, All Permits



Source: Ecological Restoration Business Association



specified number of habitat or species credits that bank owners may sell.

Mitigation and conservation banking provide numerous benefits to project proponents and the environment. Compared to traditional permittee-responsible mitigation, mitigation banking can reduce permit processing times and provide more cost-effective compensatory mitigation opportunities. According to the Ecological Restoration Business Association, developers who elect to purchase mitigation credits through a mitigation bank rather than pursue their own compensatory mitigation cut their permitting times in half, from 237 days to 121 days.⁶² Mitigation banking also assembles and applies extensive financial resources, planning, and scientific expertise not always available to many permittee-responsible compensatory mitigation proposals. Finally, because of consolidation, mitigation banking enables the efficient use of limited agency resources in the review and compliance monitoring of compensatory mitigation projects.

To facilitate the expedient use of mitigation banks the Administration proposes to streamline the approval process for their use. Currently the process requires a public and agency review as well as a second review by an interagency review team. The Administration proposes to reduce delays by eliminating this second review process. Members of the interagency review team would still have an opportunity to review and comment through the public participation process.

Use of the U.S. DOT Infrastructure Permitting Improvement Center (IPIC)

The Infrastructure Permitting Improvement Center (IPIC) advances reforms to expedite permitting and environmental review of major infrastructure projects, while achieving improved community and environmental outcomes and increasing interagency coordination.

Housed within the U.S. DOT Office of the Secretary's Office of Policy Development, Strategic Planning, and Performance, IPIC is the central resource for accelerating delivery of all U.S. DOT projects. IPIC seeks to remove barriers to efficient and effective project permitting and environmental review, support formulation of environmental solutions for multimodal, complex, or otherwise challenging projects, and promote and share best practices across the Department to improve consistency and effectiveness in project delivery.

IPIC also provides direction and support to the Department's Operating Administrations (OAs) and the Build America Bureau in helping projects navigate permitting and environmental issues with the help of environmental specialists, data analysts, and conflict-resolution experts.

In collaboration with the Federal Permitting Improvement Steering Council (FPISC) established under Title 41 of the FAST Act (FAST-41), IPIC coordinates U.S. DOT efforts with permitting reform efforts across other Federal agencies. IPIC's staff manages the Federal

The Permitting Dashboard lists 57 possible reviews/permits that a project proponent may have to navigate.

Permit/Review	Responsible Agency
• Aeronautic Study Determination	Federal Aviation Administration
• Authorization for Liquefied Natural Gas Terminal Facilities, Onshore or in State Waters	Federal Energy Regulatory Commission
• Authorization and Certification	National Oceanic and Atmospheric Administration
• Bald and Golden Eagle Protection Permit	Fish and Wildlife Service
• Business Resource Lease	Bureau of Indian Affairs
• Certification of Public Convenience and Necessity for Interstate Natural Gas Pipelines	Federal Energy Regulatory Commission
• Clean Water Act Section 404 Permit	U.S. Army Corps of Engineers
• Commercial Use Permit	Bureau of Land Management
• Conditional Letter of Map Revision	Federal Emergency Management Agency
• Construction and Operations Plan	Bureau of Ocean Energy Management
• Consultation to Protect Essential Fish Habitat	National Oceanic and Atmospheric Administration
• Consultation to Protect National Marine Sanctuaries	National Oceanic and Atmospheric Administration
• Development and Production Plan	Bureau of Ocean Energy Management
• DOD Military Mission Impact Process	Department of Defense
• Endangered Species Act Consultation - FWS	Fish and Wildlife Service
• Endangered Species Act Consultation - NOAA-NMFS	National Oceanic and Atmospheric Administration
• Fish and Wildlife Coordination Act Review	Fish and Wildlife Service
• Floodplain or Wetland Assessment	All
• Form 3200-9, Notice of Intent to Conduct Geothermal Resources Exploration Operations	Bureau of Land Management
• Geothermal Drilling Permit (GDP)	Bureau of Land Management
• Geothermal Exploration Bond	Bureau of Land Management
• Geothermal Lease	Bureau of Land Management
• Geothermal Project Utilization Plan, Facility Construction Permit, and Site License	Bureau of Land Management
• Geothermal Sundry Notice	Bureau of Land Management
• Lease of Power Privilege (Dams)	Bureau of Reclamation
• Loan Guarantee Program, Title XVII of EP Act 2005	Department of Energy
• Loan Program, Advanced Technology Vehicle Manufacturing	Department of Energy
• Marine Mammal Protection Act Incidental Take Authorization	National Oceanic and Atmospheric Administration
• Migratory Bird Treaty Act Permits	Fish and Wildlife Service
• Native American Graves Protection Act Compliance	All
• Natural Gas Export Authorization	Department of Energy
• NEPA Compliance	All
• Non-Federal Hydropower Licenses	Federal Energy Regulatory Commission
• Non-Impairment Determination (separate from NPS Permit)	National Park Service
• Notice of Proposed Construction - Form 7460	Federal Aviation Administration
• NPS Permit	National Park Service
• Nuclear Power Plant - Combined (Construction and Operating) License	Nuclear Regulatory Commission
• Nuclear Power Plant - Construction Permit	Nuclear Regulatory Commission
• Ocean Dumping Permit - Dredged Material	U.S. Army Corps of Engineers
• Oil and Gas Sundry Notice for Surfacing Disturbing Activity	Bureau of Land Management
• Operations Plan / Surface Use Plan	Bureau of Land Management
• Right-of-Way Authorization (BOR)	Bureau of Reclamation
• Right-of-Way Authorization (DOI-BIA)	Bureau of Indian Affairs
• Right-of-Way Authorization (DOI-BLM)	Bureau of Land Management
• Right-of-Way Authorization (DOI-FWS)	Fish and Wildlife Service
• Section 10 Permit	U.S. Army Corps of Engineers
• Section 106 Review	Advisory Council on Historic Preservation
• Section 1222 Project	Department of Energy
• Section 408 Permit	U.S. Army Corps of Engineers
• Service Line Agreement	Bureau of Indian Affairs
• Site License	Bureau of Land Management
• Special Use Permit (BLM)	Bureau of Land Management
• Special Use Permit (FS)	U.S. Forest Service
• Special Use Permit (NOAA)	National Oceanic and Atmospheric Administration
• USCG Bridge Permit	U.S. Coast Guard
• Wild Scenic Rivers Act Determination/Coordination	Bureau of Land Management
• Wind Energy Evaluation Lease - Indian Lands	Bureau of Indian Affairs

Permitting Dashboard and analyzes data to develop policy recommendations for advancing project delivery and fostering improved community and environmental outcomes.

IPIC reviews and advises Department officials on environmental legislation, rulemaking, and guidance that have project delivery implications. IPIC acts as the Department's liaison to the CEQ on issues related to permitting and project delivery and as the co-chair for the interagency Transportation Rapid Response Team (TRRT), a working group comprised of Federal permitting and land management agencies, to address project delivery issues and interagency coordination for U.S. DOT project delivery rulemaking. IPIC serves as the key entity within U.S. DOT to carry out the permitting reforms identified through this plan, and will work to develop innovative new approaches to ensure that environmental review and permitting work in coordination with, and not in opposition to, infrastructure projects.

Enhance the Environmental Review and Permitting Process

Through the EO and proposals contained in the Legislative Outline for Rebuilding Infrastructure in America, the Administration will set into motion a plan to implement fundamental policy changes in environmental review and permitting, while protecting the human and natural environment.

Reducing Project Timelines

The environmental review process includes a large number of Federal laws and regulations, often requiring determinations from multiple agencies. In order for a project to complete the process, a proponent or action agency must try to determine which environmental laws and regulations are applicable, and work with several different agencies. Even for experienced project sponsors this can be a challenging endeavor.

Each permit or review has its own decision points and pathways. If a delay occurs on any one of these processes, there are significant cost and timing implications, which may be magnified when a delay occurs across multiple processes. A compounding factor is that many States perform the different components of environmental review and permitting in succession, rather than concurrently. This can lead to performing

Approximate costs of delay in rebuilding roads and bridges:

Congestion costs of delay: 45 percent x \$101 billion x 6 years

= \$270 billion

Environmental losses: 19 million tons of CO₂ x 45 percent x 6 years x \$116

= \$6 billion

Increase in rebuilding costs from 6-year delay: \$385 billion (roads) + \$121 billion (bridges) x 30 percent

= \$151.8 billion

Total costs of 6-year delay in rebuilding roads and bridges:

\$427.8 billion



Source: Common Good, "Two Years, Not Ten Years: Redesigning Infrastructure Approvals"

similar analysis, multiple times, as each individual process may require reexamination of past effort, and re-initiation of certain processes.

Under the "One Federal Decision" policy established in the EO, a key goal of the Administration is to reduce the time that it takes to complete environmental reviews and permitting to less than two years, from the Notice of Intent to the joint issuance of a single ROD, which covers all individual agency decisions related to a project. A related goal is to ensure that all necessary permits or authorizations are completed within three months from the lead agency's ROD. The Office of Management and Budget (OMB) and CEQ will issue a framework under which Federal agencies will implement "One Federal Decision."

One Federal Decision

Historically, environmental permitting has been managed on an agency-by-agency basis. For this reason, there is no single voice among Federal Government agencies regarding environmental review and permitting. Project proponents or agencies must work with a potentially large number of Federal agencies—without a clear roadmap—to complete a single project. Additionally, when agencies are not in agreement with each other, efforts to resolve issues often take time or are not successful without high-level intervention. Project sponsors may find themselves in situations where opposing decisions have been made, and thus be forced to mediate the situation with multiple agencies. These undue burdens placed on local and State governments, as well as private applicants, must be addressed in order to create a truly streamlined process. In response to these challenges, the Administration has developed through its EO a “One Federal Decision” framework that is consistent with other model processes established to streamline NEPA.⁶³ The framework is consistent with the model processes established under FAST-41, 23 U.S.C. 139, 33 U.S.C. 2348, the 2015 Red Book, and CEQ guidance on efficient and timely environmental reviews. The framework itself will include guidance on the development of permitting timetables, as well as guidance for applying the “One Federal Decision” when the lead agency is a State, Tribal, or local agency that holds NEPA delegation. Key aspects of the “One Federal Decision” framework include:

- Requiring the lead Federal agency to develop a single Federal environmental review document to be utilized by all agencies, and a single ROD to be signed by the lead Federal agency and all cooperating agencies.
- Confirming that the lead Federal agency has final authority for determining the purpose and need and developing a single purpose and need to be used by cooperating and permitting agencies.
- Assigning responsibility to the lead Federal agency to determine the range of alternatives to be used by cooperating agencies.

The Administration's Initiative builds upon “One Federal Decision” with “One Agency, One Decision,” which sets timelines for completing environmental reviews and permitting decisions, and establishes appropriate enforcement mechanisms regarding the issuance of permitting decisions.

Reducing Inefficiencies in Environmental Reviews

There are opportunities to better align, or synchronize, environmental review and permitting processes. A synchronized Federal review process involves, to the extent possible, concurrently performing the various required environmental review and permitting procedures or consultation activities. Synchronized reviews have the potential to reduce project delivery timelines by improving coordination and communication among agencies with jurisdiction over the environmental review or permits for a particular project, providing a forum for issues to be resolved early in the environmental review process, and ensuring that information needed by resource agencies for permits is included in environmental documents.

Under the “One Federal Decision” framework, each major infrastructure project will have a lead Federal agency that is responsible for navigating the project through the Federal environmental review and authorization process. All Federal cooperating and participating agencies must identify points of contact for each project, cooperate with the lead Federal agency point of contact, and respond to all reasonable requests for information from the lead Federal agency in a timely manner. The Federal lead, cooperating, and participating agencies for each major infrastructure project will record any individual agency decision in one ROD that the lead Federal agency coordinates. Finally, the Federal lead, cooperating, and participating agencies will agree to a permitting timetable that includes the completion dates for the ROD and the federally required authorizations for the project. CEQ and OMB, in consultation with the Permitting Council, will refine the framework for implementing the “One Agency, One Decision.”

Improving Environmental Performance and Accountability

All Federal agencies need to follow transparent and coordinated processes when conducting environmental reviews and making authorizations, but historically, many have fallen short of this goal. The Administration has set performance goals for environmental reviews, and tracking and measuring agency performance to increase accountability and transparency to the public via several mechanisms. First, the Administration established a requirement to set a Cross-Agency Priority Goal (CAP Goal) to achieve this objective. Second, OMB will set up an accountability tracking system for major infrastructure projects which will be used in coordination with the Federal Permitting Dashboard.

Approximate costs of delay in rebuilding rail infrastructure:

Congestion costs of delay: \$200 billion x 6 years

= \$1.2 trillion

Environmental losses:
not readily calculable

Increase in rebuilding costs from 6-year delay: \$75 billion x 30 percent

= \$22.5 billion

Total costs of 6-year delay in rebuilding rail infrastructure:

\$1.22 trillion



Source: Common Good, "Two Years, Not Ten Years: Redesigning Infrastructure Approvals"

The tracking system will track whether infrastructure projects are processed using the "One Federal Decision" mechanism; whether major infrastructure projects have a permitting timetable and whether they are meeting timelines established in the permitting timetable; the time it takes to complete the processing of environmental reviews and authorizations for each major infrastructure project; and the costs of the environmental reviews and authorizations for each major infrastructure project.

Agencies will submit this information to the OMB, which will be able to produce a scorecard of agency performance and overall progress toward meeting

agency and government-wide performance goals. Where the project timeline is significantly delayed, agencies will submit an estimate of the delay's costs to the project, based on OMB guidance.

Enhance the Permitting Dashboard

The Permitting Dashboard is part of a government-wide effort to improve coordination, transparency, and accountability.⁶⁴ The Permitting Dashboard was established in 2011 and codified into law in FAST-41.

Starting in January 2016, Federal agencies were required to report performance schedules to the Permitting Dashboard for all projects subject to FAST-41, and under U.S. DOT policy the same is required for all U.S. DOT-led surface transportation projects subject to an EIS or an Environmental Assessment (EA) associated with the construction of transportation infrastructure.⁶⁵ For covered tracked projects that began the formal Federal process after October 12, 2015, and completed review after June 1, 2016, agencies are also encouraged to post a description of improved environmental and community outcomes that resulted from the permitting and review processes.

The Administration seeks to enhance the Permitting Dashboard, as it improves accountability and transparency by displaying project timelines on a forum easily accessible to the public, project sponsors, and Government agencies. In addition, as a data source for environmental review and authorization timelines, the Dashboard provides consistent data that Federal agencies can use to analyze permit and review practices and identify ways to further improve the effectiveness and efficiency of these processes. Full utilization of the Permitting Dashboard and associated requirements will also help ensure timely and thorough collaboration and interaction between agencies early and throughout the environmental review and permitting processes. Further, the Dashboard will be able to flag when a milestone is missed or extended.

While agencies are already inputting data, the Permitting Dashboard is still growing, and once more data is available, baselines can be established to serve as an anchor for measuring progress toward streamlined permitting timelines.

Expand the Use of Negotiated Mitigation

The Administration proposes instituting a pilot program to experiment with the negotiation of mitigation and address environmental impacts of transportation

projects. While existing regulations allow infrastructure agencies and project sponsors to use negotiated mitigation, the use of this strategy is inconsistently applied across the country. A negotiated mitigation pilot program will permit the U.S. DOT (or other infrastructure agencies) to establish an alternative decision-making process based on negotiated mitigation agreements and supporting mitigation markets that address anticipated project impacts for a specific set of projects, such as identified high-priority transportation projects. Negotiated mitigation strategies could include purchase of offsets dedicated to an advanced mitigation fund, avoidance of anticipated impacts, and/or fee-in-lieu programs. Projects unable to successfully conclude the alternative process will continue to proceed to a decision under otherwise applicable Federal environmental processes.

Federal Permitting Improvement Steering Council

U.S. DOT participates in the FPISC, which was established by FAST-41. The Permitting Council is composed of agency Deputy Secretary-level members and chaired by an Executive Director appointed by the President. The Permitting Council helps to streamline environmental reviews by facilitating a dialogue and coordinating on project-specific issues between all of the agencies involved in environmental reviews and permitting decisions. This helps to ensure that the process for resolving disputes is more transparent, and that project proponents do not have to navigate through several agencies that may not be communicating with each other.

One role of the Permitting Council as outlined in FAST-41 is to develop recommended performance schedules, including intermediate and final completion dates, for environmental reviews and authorizations most commonly required for each category of covered projects. The performance schedules need to reflect the use of efficient processes, including the alignment of Federal reviews and other strategies to reduce permitting and project delivery time, and should not exceed the average time based on two years of data. In 2016, the Permitting Council developed a generic model permitting timetable. The Permitting Council is currently working with relevant agencies and the Permitting Dashboard team at U.S. DOT to gather two years of project-specific data on permitting timetables and establish recommended performance schedules. These permitting timelines along with the information posted on the Permitting Dashboard will allow the public

Regulatory red tape slows the process.

With regulatory red tape to navigate, major infrastructure projects are held up for years at significant cost to our economy.

According to GAO and NAEP, the average time frame to complete an EIS is **4.6 or 5.1 years**, respectively.

Source: GAO and NAEP

and project proponents to gain insight into the status of environmental reviews and to track review timelines. This increased transparency and accountability will likely motivate agencies to speed review timelines and identify opportunities for streamlining.

Pilot Innovative Solutions

Agency experience in developing infrastructure projects and implementing environmental laws gives agencies a unique window to identify requirements that impede the effective and efficient delivery of their projects or programs, and to test improvements. The Administration is in the process of establishing a series of pilot programs that will allow Federal infrastructure and environmental agencies to test modifications to their own statutory or regulatory requirements in order to develop innovative practices to streamline project delivery, achieve better environmental outcomes, and ensure that resources are protected.

The Administration proposes establishing two new pilot programs to experiment with new ways to address environmental impacts while delivering projects in a more timely and predictable way. One is the Negotiated Mitigation Pilot Program described previously. The second is the Performance-Based Pilot Program. Under this program, project sponsors will experiment with using environmental performance measures instead of an environmental review process to address environmental impacts of an infrastructure project. For projects in the Pilot, the project sponsor for a selected project will agree to design its project to meet performance standards and permitting parameters established by the lead Federal agency. The lead Federal agency will develop these standards with public input and in coordination with other cooperating Federal agencies. The project sponsor's agreement to meet the

performance standards and permitting parameters will be in lieu of complying with NEPA and relevant permits or other authorizations. The performance standards will result in design elements and enhanced mitigation that address the impacts of the project and meet permit requirements. The pilot will support the goals and objectives of NEPA and meet permit obligations without being constrained by its procedural requirements.

Unnecessary Approvals

A variety of triggers make a project subject to Federal-level environmental review and permitting, including circumstances where a Federal agency funds, authorizes, or carries out the program or project, or activities that require a permit by law, such as Section 404 of the Clean Water Act in which any project that will dredge or fill material into Waters of the United States must seek a permit. As a result of this broad definition, many projects that are not fundamentally Federal in nature are required to comply with not just State but Federal environmental laws and regulations.

Additionally, at present a State must obtain U.S. DOT's authorization to proceed before beginning work on any Federal-aid project. FHWA can provide this authorization for a project or a group of projects through or after the execution of a formal project agreement with the State, but only after FHWA determines that all applicable Federal requirements have been met.

The Administration seeks to address this challenge through the expansion and simplification of programs that allow U.S. DOT to delegate its authorities to State agencies.

Simplify and Clarify the Existing Delegation Programs

Section 6005 of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) created the Surface Transportation Project Delivery Pilot Program, which allowed a limited number of States to apply to assume the Secretary of Transportation's responsibilities under NEPA for one or more highway, railroad, public transportation, or multimodal projects. This program was later replaced in MAP-21, further modified under the FAST Act, and codified in 23 U.S.C. 327 by the full Surface Transportation Project Delivery Program, under which the Secretary of Transportation could assign this responsibility to any State that wishes to participate. To date, such assignments have only occurred in the FHWA program, although other stakeholders are exploring the possibilities of NEPA

assignment: the high-speed rail program in California is one example. The U.S. DOT has generally been supportive of States seeking to assume the Federal role in the NEPA process since it can translate into more effective and efficient use of Federal funds and accelerate project delivery. However, the extent of responsibilities a State may assume under the program is limited, which acts as a disincentive for additional States to enter the program and leads to delays in project delivery.

Expand Delegated Programs

Based on the success and popularity of existing delegation programs, the Administration anticipates that by broadening the span of such programs, additional time and resources will be saved, and will further separate the Federal Government from inherently State and local projects. Expansion will include opportunities outside of U.S. DOT, as well as broadening of U.S. DOT programs.

The Administration proposes expanding NEPA delegation to other infrastructure agencies. Extending the authority to other infrastructure agencies, and leveraging the positive experiences of the U.S. DOT program, will extend the benefits of this program to other sectors. Additionally, the Administration believes that there are other U.S. DOT authorities that could be delegated to States, thereby reducing approvals and streamlining the Federal role. This could include allowing States to assume some or all of FHWA's responsibilities for right-of-way acquisitions. By examining this and other easily delegated authorities, such as air quality conformity, and noise and flood plain determinations, which occur during the environmental review and permitting process, State and local governments could play a broader role in their own projects, and Federal staff could focus on inherently Federal projects.

Institute Section 4(f) and Section 106 Reforms

The relationship between the application of Section 4(f) (49 U.S.C. 303/23 U.S.C. 138) and Section 106 of the National Historic Preservation Act is a frequent source of confusion for project sponsors and agencies. Section 106 requires the consideration of the effects of their undertakings on historic sites that are on or eligible for the National Register of Historic Places. Section 4(f) requires determination that there are no other feasible and prudent alternatives to the use of park and recreation lands, wildlife and waterfowl refuges, and historic sites for a transportation project. Unlike Section 106, which establishes a process to consider



impacts on an historic site before proceeding, Section 4(f) imposes an outright prohibition on the use of an historic site unless there is no prudent or feasible alternative. The relationship between the two provisions sometimes causes confusion, and considerations in both determinations may overlap. Therefore, reforms are needed to eliminate duplication, maintain the protection of these valuable resources, and reduce duplication and delay.

To accomplish this, the Administration proposes simplified language allowing U.S. DOT to use the Section 106 process to also meet its obligations under Section 4(f) for certain historic sites. These changes will maintain critical protections for our Nation's historic and cultural resources.

Reform of Judicial Review

Agencies review environmental documents for legal sufficiency in addition to ensuring that the decision is sound and sensible. The prospect of litigation may impact the scope of that review. The Administration believes that the resources of the Federal and State Governments are better spent preserving and enhancing the natural environment rather than on extensive litigation regarding environmental documents.

To address this issue, the Administration proposes a set of activities that will enable faster dispute resolution, reduce delays due to legal activities, and narrow the scope of judicial review to commence once all pertinent agency approvals have been granted.

In other cases, the statute of limitations extends up to six years. To harmonize the treatment of infrastructure projects, the Administration proposes Congressional action to standardize the statute of limitations to 150 days for challenges to decisions and permits for infrastructure projects.

The Administration believes it is critical to enact judicial reform to reduce delay due to legal challenges related to the environmental review and permitting of infrastructure projects. One way to accomplish this would be to limit injunctive relief to exceptional circumstances so as to avoid unduly delaying needed infrastructure projects. Instead, such concerns could be addressed concurrently to the project.

Further, the Administration proposes establishing guidelines to clarify when new studies or data are required. The Administration proposes providing agencies deference on claims based on the use of current data in environmental review and permitting decisions. Project sponsors and Federal agencies are expected to use current data in conducting their environmental and permitting reviews. However, with projects spanning several years, a project sponsor may need to conduct multiple studies to generate current data on an issue. While using complete and up-to-date data is necessary to make an informed decision, litigation risk should not be the primary driver in deciding whether to do a new study. Requiring Federal agencies to establish guidelines on when new studies and data are required will clarify requirements and create more certainty in the NEPA process. Courts will grant agencies judicial deference on whether the data was current, provided agencies were in compliance with agency guidelines.



Proposals Led by Agencies Other Than U.S. DOT

In addition to the proposals described previously, a number of proposals spearheaded by agencies other than the U.S. DOT are also intended to achieve the Administration's environmental streamlining goals. One example is the Administration's proposal to extend the authority that MAP-21 gave to surface transportation projects to combine the Final EIS and ROD documents to all infrastructure projects. The provision in MAP-21 has been shown to save two to three months for surface transportation projects. Similarly, the Administration proposes that clarification be made that agencies should not expend time and resources analyzing and considering project alternatives that cannot be implemented. Agencies will instead focus their resources and analyses only on those alternatives that are legal and technically and economically feasible. These changes, along with revisions to CEQ's NEPA regulations and guidance more generally, will increase efficiency, predictability and transparency in environmental reviews.

There are also proposals specific to laws under the NEPA umbrella, such as the Clean Air Act, Clean Water Act, and Endangered Species Act, that non-DOT agencies are advancing which will help to accelerate the efficient delivery of transportation projects. Regarding protecting clean air, for example, the Clean Air Act currently requires EPA to establish National Ambient Air Quality Standards (NAAQS) for certain pollutants. It also requires EPA to periodically review and, if necessary, update these standards. This creates a problem every time EPA promulgates new updated NAAQS before prior standards

are revoked. Transportation and planning agencies may be required to demonstrate conformity to both the old and new standards for the same pollutant, creating redundancy and uncertainty, and causing State DOTs and metropolitan planning organizations to spend their limited resources unnecessarily. Amending the Clean Air Act to clarify that conformity requirements only apply to the latest NAAQS for the same pollutant will avoid this confusion and reduce legal challenges.

These are only a brief cross-section of the Administration's proposed improvements to the environmental permitting process. They, along with other enhancements, will provide for a quicker and more balanced assessment of environmental protections during the environmental review and permitting processes.

Conclusion

The environmental review and permitting processes are time-tested mechanisms to protect the environment, but not all components have evolved with the pace of development and technology. By capitalizing on and expanding existing best practices and piloting new approaches we have the opportunity to streamline these processes without compromising their intended purpose. This Administration will reduce permitting times, improve interagency coordination, and find ways to add flexibility to processes to ensure that development, conservation, and mitigation are all successful endeavors.

Part V. The Path Forward



America deserves a world-class infrastructure system that creates opportunities for all its people. The Administration's Infrastructure Initiative provides a vision for delivering that system in a timely and efficient manner.

By refocusing the Federal role on projects of regional and national significance, the Administration can more effectively leverage Federal dollars. The incentive grants offered in the Infrastructure Initiative will assist communities in moving toward this model, and ensure that projects are produced at the appropriate level.

The Administration has placed a keen focus on addressing the needs of rural Americans who are all too often left behind on major Federal investments. The plan sets forward a clear path to rectify this issue, bringing an improved quality of life through economic development and improved access to essential services. Target investment via major funding programs will allow rural areas to make much-needed infrastructure improvements and capitalize upon the important resources in their regions.

Our Nation is facing major barriers in terms of improving congestion, safety, and addressing urgent repair. The development and deployment of transformative technologies will bring about new solutions that will

improve performance and save lives. Through innovative partnerships with the private sector the Federal Government can jointly bring these new technologies to market.

The Administration seeks to identify new funding streams. Leveraging private sector investment and engagement in major infrastructure projects brings a new, and often times more flexible, source of funding to the table.

Lastly, the Administration recognizes that projects need to be completed quickly and efficiently in order for our Nation to realize the maximum benefit. To make this happen, the plan resolves many of the complexities and inconsistencies in the environmental review and permitting processes that lead to delay and increased cost.

This vision for our Nation's infrastructure future provides us with the opportunity to make greatly needed repairs to our aging system, while capitalizing on new opportunities to stimulate economic growth, and ensure that all of America's citizens have equal access to the resources that make this a great Nation.

Endnotes

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- ⁷ Data supporting these findings are on pages 26-27.
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airlines competing for contracts to partner with major airlines.

The President's Initiative for Rebuilding Infrastructure in America

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