Future of the United States Transportation System

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Overview

• The United States Transportation System

• Challenges

• Meeting the Challenges
## United States Transportation Network Today

<table>
<thead>
<tr>
<th>US Transportation System</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway</td>
<td>4,067,077</td>
</tr>
<tr>
<td>Freight Rail</td>
<td>95,700</td>
</tr>
<tr>
<td>Passenger Rail</td>
<td>21,178</td>
</tr>
<tr>
<td>Transit</td>
<td>9,578</td>
</tr>
<tr>
<td>Navigable Channels</td>
<td>25,320</td>
</tr>
<tr>
<td>Oil Pipeline</td>
<td>176,271</td>
</tr>
<tr>
<td>Gas Pipeline</td>
<td>1,545,983</td>
</tr>
</tbody>
</table>
Transportation Statistics

• As of 2010, 242.1 million vehicles were registered in the United States – nearly four times the 65.1 million registered in 1956, the first year of the Eisenhower Interstate Highway System.

• There are 210 million licensed drivers or 681 drivers for every 1,000 residents in the United States.

• In the United States there are over 600,000 bridges.

• Although the Interstate System accounts for about 1.2 percent of the Nation's total public road mileage, it carries 24 percent of all highway travel.
Challenges

- US Population - projected to grow nearly 1% per year.
- US Freight - tonnage transported projected to grow 1.6% per year.
- Crashes - killed 32,885 people in 2010, a rate of 1.09 per 100 million miles traveled.
- Congestion – Route miles of highways increased 5.4% while vehicle miles of travel increased 96% from 1980 to 2009.
Number of Vehicles Operating on Our Highways

Annual Average Daily Traffic (AADT)

2007

2040
Meeting the Challenges

- Strengthening Infrastructure Investment
  - American Jobs Act of 2011
  - Moving Ahead for Progress in the 21st Century (MAP-21)
- Working Smarter - Every Day Counts Initiative
  - Shortening Project Delivery
  - Accelerating Innovation
Future of the United States Transportation System

President Obama speaking on the United States infrastructure:

“We’re not going to reduce the deficit by sacrificing investments in our infrastructure.”

“Ask yourselves -- where would we be right now if the people who sat here before us decided not to build our highways, not to build our bridges, our dams, our airports? ”
Strengthening Infrastructure Investment

Moving Ahead for Progress in the 21st Century (MAP-21)

• Strengthens America’s highway and public transportation systems

• Creates jobs and supports economic growth

• Supports the Department’s aggressive safety agenda

• Simplifies and focuses the Federal program

• Accelerates project delivery and promotes innovation

• Establishes a performance-based Federal program
$37.7 billion/year in formula funding

- National Highway Performance Program ($21.8)
- Surface Transportation Program ($10.0)
- Highway Safety Improvements ($2.2)
- Congestion Mitigation/ Air Quality ($2.2)
- Transportation Alternatives ($0.8)
- Railway-Highway Crossing ($0.2)
- Metro Planning ($0.3)
Stable funding

- Program authorized through FY14
  - Current law through end of FY12
  - Most new provisions go into effect on October 1\textsuperscript{st}
- Avg. annual funding at FY12 levels (plus minor inflation)
- Extends Highway Trust Fund taxes and ensures 2 years of solvency for Highway Trust Fund (HTF)
- Substantial programmatic consolidation
  - No earmarks
  - Most discretionary programs eliminated
Working Smarter - Every Day Counts Initiative

- Launched in November 2009
- Driven by state, local, and industry partners’ need to work more efficiently and be more accountable to the public.
- Identifies & deploys innovation to shorten project delivery, enhance safety and protects the environment.
- Better, faster, smarter approach
Shortening Project Delivery

- Average of 13 years to deliver a major highway project
- Frequently cited problem areas identified
- FHWA Leadership role helping States, Metropolitan Planning Organizations, contractors
- Toolkit of approaches to reduce delivery times
  - Planning and Environmental Linkages
  - Use of Existing Regulatory Flexibilities
  - Contracting Innovations
Contracting Innovations

State of Utah

• Employed 2 accelerated project delivery methods
  • Construction Manager/General Contractor (CM/GC)
  • Design –Build

• Contractor and designer worked together during design to identify and minimize future construction risks.

• The design and construction phases often overlap, leading to faster project completion.

• Resulted in savings of $25 million on a $140 million project with 14 bridges
Accelerating Technology Innovation

• Use National Leadership to leverage 21st century proven, market-ready technologies
• Work with the transportation community to achieve widespread use of technologies, such as
  • Warm mix asphalt
  • Adaptive Signal Control
  • Pre-fabricated Bridge Elements
Pre-fabricated Bridge Elements

- Major Time Savings
- Cost Savings
- Safety Advantages
- Convenience for Travelers
- Solving Constructability Challenges
- Revolutionizing Bridge Construction in U.S.
Graves Bridge in Florida
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