The following summary is intended to highlight the highway and research titles of MAP-21. It does not include the transit or motor carrier safety provisions of the bill.

Overview

- **Summary.** MAP-21 funds the surface transportation programs at roughly current levels through September 30, 2014. The bill includes an extension of existing law through the end of FY 2012, with the programmatic and structural changes coming into effect for fiscal years 2013 and 2014. MAP-21 continues the ban on Congressional earmarks.

- **Provisions Not Included.** The bill does not include any federal mandates on pavement design methods there were proposed in the House of Representatives and US Senate. The bill does not include the Senate’s rail title. The House-passed Keystone XL Pipeline authorization and provisions related to coal ash were also not included.

- **Programs Authorized.** The bill authorizes funds for highway, transit, highway safety, motor carrier safety, and research programs. For Federal-aid highway programs, the bill authorizes $40.56 billion in FY 2013 and $40.625 billion in FY 2014. The bill also included extensions of the Secure Rural Schools and Payments in Lieu of Taxes program.

- **Funding Levels.** Current Federal-aid highway program funding in FY 2012 is $39.144 billion. The bill provides:
  - $39.699 billion in FY 2013
  - $40.256 billion in FY 2014
• **Funding Sources.** In addition to extending federal fuel excise taxes through September 30, 2016, the bill utilizes a number of new funding sources, including pension reforms and a transfer of the portion of the gasoline tax that currently goes into the Leaking Underground Storage Tank Trust Fund into the Highway Trust Fund (HTF). The bill does not include any long-term fixes for the solvency of the Highway Trust Fund. The Congressional Budget Office predicts that under the conference report, the HTF will be insolvent in both the Highway Account and the Mass Transit Account by FY 2015.

**Core Highway Programs**

• **National Highway Performance Program.** The new NHPP program combines three former programs: Interstate Maintenance, National Highway System, and Bridge. The program aims to improve conditions and performance on the 161,000 mile National Highway System, with a focus on state-of-good repair activities and a requirement that States develop a risk-based asset management plan.
  o The Secretary is directed to conduct a rulemaking to establish performance standards for the minimum condition of pavement and bridges on the NHS. For pavements, the Secretary shall establish minimum standards for operating pavement management systems, minimum levels for the condition of the pavements, and the data elements necessary to collect and maintains standardized data to carry out the performance-based approach. States failing to meet these targets over time will be required to spend a portion of both their NHPP funds, and their Surface Transportation Program funds, to address their shortfalls. The rulemaking must be complete within 18 months.

• **Surface Transportation Program.** The STP program is similar to prior iterations, providing very broad eligibility for States and local governments. MAP-21 removes the requirement that 10 percent of funds be spent on transportation enhancements. The bill continues to require sub-allocation to areas based on population, but lowers the percent from 62.5 percent to 50 percent. This lower percentage for local governments is offset by the removal of the 10 percent off-the-top transportation enhancements funding. The program also includes the off-system bridge set-aside, requiring States to spend money equivalent to what they spent in FY 2009 on bridges not on the federal-aid system.
• **Highway Safety Improvement Program.** The HSIP program continues to fund infrastructure-based safety projects. States will be required to meet safety performance targets over time and will be required to spend a portion of their funds to address any shortfalls. The high-risk rural road program is altered, and States that see their rural roadway fatalities rise over a two-year period will be required to use a portion of their funds to address this problem. States that do not have an increase in rural road fatalities will not be subject to this requirement.

• **Congestion Mitigation and Air Quality Program.** CMAQ funds will continue to support projects to reduce emissions in maintenance and non-attainment areas. The Senate proposal to sub-allocate this program down to the local level was not retained in the conference report. The prohibition on spending CMAQ funds on single-occupancy vehicle capacity was retained. The bill modifies the diesel retrofit priority to require, that in PM2.5 nonattainment areas, States prioritize projects proven to reduce PM2.5, including diesel retrofits. States may also elect to fund retrofits for construction equipment, but this is not a requirement.

• **National Freight Policy.** MAP-21 does not direct funding to a new freight grant program as proposed in the initial Senate bill. Instead, the bill provides an increased federal share for freight projects—95 percent for projects on the Interstate system, and 90 percent for other projects. The Secretary is directed to designate a new national freight network, to include up to 27,000 miles of highways that are critical to the movement of freight, and a national freight plan will be developed. The bill also encourages the creation of State freight plans and advisory committees.

**Project Expediting**

• **Early ROW Acquisition.** Right-of-way can be acquired prior to the completion of NEPA, provided that it does not have an adverse environmental impact, limit the choice of alternatives, or prevent the lead agency from making impartial decisions. The land cannot be developed prior to the completion of NEPA, and if the land is purchased with federal funds and is not used for a federal transportation projects, the State will refund FHWA from its apportionments.

• **Contracting Efficiency.** State DOTs can award a two-phase contract to a construction manager or general contractor for preconstruction and construction services, and this may be done prior to the completion of NEPA.
• **Innovative Project Delivery.** For projects funded under the National Highway Performance Program, the Surface Transportation Program, and the Metropolitan Planning Program, the State may choose a 100 percent federal share for projects, programs, or activities that 1) improve work zone safety, 2) decrease long-term costs of maintaining highways, 3) accelerates project delivery, or 4) reduces congestion. Examples include in-place recycling, intelligent compaction equipment, innovative contracting methods, or early completion incentives for contractors.

• **Accelerated Decisionmaking.** The bill includes new environmental dispute resolution authority for the Secretary. It also includes financial penalties for any agency that does not approve permits or licenses within a certain period of time.

• **Limitations on Claims.** The bill shortens the window when legal disputes may be brought against a project from 180 days to 150 days.

• **Acceleration of Completion of Complex Projects.** The bill requires the Secretary to complete complex projects within four years, and includes financial penalties for a failure to meet this deadline.

• **NEPA Delegation.** The bill makes permanent the ability of the Secretary to delegate NEPA authority to States, and removes the limitation that only five States may receive this authority. This authority is expanded to transit, rail, and multi-modal projects, but provides the option for transit agencies to request a waiver to the Secretary. The bill does not allow for reciprocity between NEPA and State environmental processes.

• **State and Federal Environmental Law Reciprocity.** The bill does not establish a pilot program to allow for State environmental laws to be substituted for federal laws, provided that the laws are substantially similar. Instead the Government Accountability Office is required to complete a two-year study on the issue.

• **Categorical Exclusions for Projects.** The bill would categorically exclude from NEPA a number of types of projects, including: projects within the operational right-of-way, those impacted by emergencies and disasters, projects with less than $5 million in federal funds, and projects with total costs of less than $30 million and have less than 15 percent federally share.
• **Survey of Categorical Exclusions.** The Secretary is directed to consult with transportation and transit agencies at all levels to make recommendations on new activities to be categorically excluded.

**Other Programs and Issues**

- **PNRS/“Mega-Projects”**. The bill authorizes $500 million for FY 2013 (subject to General Fund appropriations) for the Projects of National and Regional Significance Program to fund high-cost surface transportation projects. The bill uses the PNRS program structure first authorized in SAFETEA-LU, which established a rigorous Full Funding Grant Agreement (FFGA) process similar to the transit New Starts program. This FFGA process was not used in the prior bill through because all PNRS funding had been earmarked. States, tribes, and transit agencies would be eligible applicants.

- **TIFIA**. The bill includes a substantial increase in the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, increasing it from $122 million in FY 2012 to $750 million in FY 2013 and to $1 billion in FY 2014. The bill would increase the Federal share of TIFIA projects from 33 to 49 percent, and would allow support for programs of related projects.

- **Tolling**. The bill would expand the ability of states to use tolls on federal-aid highway capacity projects, provided the number of toll-free lanes remains the same as before construction. The bill does not include a Senate provision that would have reduced federal formula funding to states that sell or lease existing highways to the private sector.

- **Bicycle and Pedestrian Provisions**. The bill removes the dedicated Safe Routes to School, Recreational Trails, and Transportation Enhancements program. It creates a new program called Transportation Alternatives that is funded through a 2 percent takedown of the core highway programs. In addition to bicycle and pedestrian projects, these funds can be used for building roads or costly environmental mitigation. Half of the funds are sub-allocated to local areas. The States’ half of the funds can be flexed away to other types of highway projects not included in the Transportation Alternatives program. The bill also sets aside a portion of the funds for Recreational Trails; however, State can opt out if they so choose.

- **Truck Size and Weight**. The bill included a two-year study to examine the issues related to increased truck size and weight.
• **Veterans’ Preference.** Contractors working on Federal-aid highway projects are encouraged to make a best faith effort in the hiring of veterans who have the requisite skills and abilities to perform the construction work.

**Research and Education**

• **Overview.** The bill authorizes $115 million annually in FY 2013 and FY 2014 for the Highway Research and Development Program. The bill authorizes and additional $62.5 million annually in FY 2013 and FY 2014 for Technology and Innovation Deployment Program. Funding for research programs will be available until expended and the cost share of a project is 80% federal unless otherwise determined by the Secretary.

• **Prize Competitions.** The Secretary may use up to 1 percent of the funds made available under section 51001 of the Transportation Research and Innovative Technology Act of 2012 to carry out a program to competitively award cash prizes to stimulate innovation in basic and applied research and technology development that has the potential for application to the national transportation system.

• **Research and Technology Development and Deployment.** The Secretary must carry out research, development, and deployment activities that encompass the entire innovation lifecycle. The term “innovation lifecycle” means the process of innovating through:
  - the identification of a need;
  - the establishment of the scope of research to address that need;
  - setting an agenda;
  - carrying out research, development, deployment, and testing of the resulting technology or innovation; and
  - carrying out an evaluation of the costs and benefits of the resulting technology or innovation.
- **Improving Infrastructure Integrity.** The Secretary must carry out and facilitate highway and bridge infrastructure research and development activities that include the following activities and content:
  - to increase the reliability of lifecycle performance predictions used in infrastructure design, construction, and management;
  - to improve the ability of transportation agencies to deliver projects that meet expectations for timeliness, quality, and cost;
  - to reduce user delay attributable to infrastructure system performance, maintenance, rehabilitation, and construction;
  - to improve highway condition and performance through increased use of design, materials, construction, and maintenance innovations;
  - to reduce the environmental impacts of highway infrastructure through innovations in design, construction, operation, preservation, and maintenance;
  - research to develop more durable infrastructure materials and systems;
  - advanced infrastructure design methods;
  - accelerated highway and bridge construction;
  - performance-based specifications;
  - construction and materials quality assurance;
  - comprehensive and integrated infrastructure asset management;
  - sustainable infrastructure design and construction;
  - hydraulic, geotechnical, and aerodynamic aspects of infrastructure;
  - improved tools, technologies, and models for infrastructure management, including assessment and monitoring of infrastructure condition;
  - studies on the effectiveness of fiber-based additives to improve the durability of surface transportation materials in various geographic regions;
  - technology transfer and adoption of permeable, pervious, or porous paving materials, practices, and systems that are designed to minimize environmental impacts, stormwater runoff, and flooding and to treat or remove pollutants by allowing stormwater to infiltrate through the pavement in a manner similar to predevelopment hydrologic conditions.
• **Lifecycle Cost Analysis Study.** The General Accountability Office (GAO) must conduct a study and issue a report within one year of the best practices for calculating lifecycle costs and benefits for federally funded highway projects, which shall include, at a minimum, a thorough literature review and a survey of current lifecycle cost practices of State departments of transportation. The report shall contain a summary of the latest research on lifecycle cost analysis; and recommendations on the appropriate period of analysis, design period; discount rates; and use of actual material life and maintenance cost data. In carrying out the study, the GAO shall consult with the American Association of State Highway and Transportation Officials, appropriate experts in the field of lifecycle cost analysis, and appropriate industry experts and research centers.

• **Strengthening Transportation Planning and Environmental Decisionmaking.** The Secretary must carry out research to minimize the cost of transportation planning and environmental decisionmaking that includes the following activities and content:
  - to reduce the potential impact of highway infrastructure and operations on the environment;
  - to accelerate construction to reduce congestion and related emissions;
  - to reduce the impact of highway runoff on the environment; and
  - creation of models and tools for evaluating transportation measures and transportation system designs, including the costs and benefits.

• **Technology and Innovation Deployment Program.** The Secretary must carry out a technology and innovation program relating to all aspects of highway transportation including pavements, environment, and construction with the goals of significantly accelerating the adoption of innovative technologies, providing leadership and incentives to demonstrate state-of-the-art technologies, constructing longer-lasting highways and improving sustainability. The Secretary shall carry out demonstration programs, provide technical assistance and training, and develop tools and methods to adapt proven practices and technologies as standard practice.
• **Accelerated Implementation and Deployment of Pavement Technologies.** The Secretary shall establish and implement a program to promote, implement, deploy, demonstrate, showcase, support, and document the application of innovative pavement technologies, practices, performance, and benefits. The goals of the accelerated implementation and deployment of pavement technologies program shall include the deployment of new, cost-effective designs, materials, recycled materials, and practices to extend the pavement life and performance and to improve user satisfaction; the reduction of initial costs and lifecycle costs of pavements, including the costs of new construction, replacement, maintenance, and rehabilitation; the deployment of accelerated construction techniques to increase safety and reduce construction time and traffic disruption and congestion; the deployment of engineering design criteria and specifications for new and efficient practices, products, and materials for use in highway pavements; the deployment of new nondestructive and real-time pavement evaluation technologies and construction techniques; and effective technology transfer and information dissemination to accelerate implementation of new technologies and to improve life, performance, cost effectiveness, safety, and user satisfaction. In fiscal years 2012 through 2013, $12 million annually is made available to carry out this program.