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Chairman DeFazio, Ranking Member Duncan, and Members of the Subcommittee, thank you for the opportunity to testify today on the topic of innovative contracting in public-private partnerships.

Introduction

Secretary Mary Peters has said: “Congestion is endangering our freedom, our economy, and our independence.” We must make the most of our existing network and resources. The purpose of the U.S. Department of Transportation’s *National Strategy to Reduce Congestion on America’s Transportation Network* (often referred to as the “Congestion Initiative”) is to help State and local governments demonstrate innovative ideas for reducing congestion. One of the elements of the Congestion Initiative is to remove barriers to private sector participation in the construction, ownership, and operation of transportation infrastructure. Innovative contracting is one means by which we can increase private sector involvement.

In traditional Federal-aid highway construction contracting, cost is generally the one criterion that determines a winning bid. Section 112(b)(1) of title 23, United States Code, requires highway construction contracts to be awarded competitively to the lowest responsive bidder. A State must use competitive bidding procedures, unless it demonstrates that some other method is more cost effective or that an emergency exists. Similarly, 23 U.S.C. 112(b)(2) requires engineering service contracts to be awarded using qualifications-based selection procedures. These two requirements hinder the use of newer, more quality-oriented contracting techniques. For example, since design and construction contracts must be competed in different ways under these requirements, design-build contracts were essentially prohibited.

In recent years, as State highway agencies strive to meet customer needs, factors other than cost have also emerged as important factors in awarding highway construction contracts. Quality, delivery time, social and economic impacts, safety, road user impacts, life-cycle costs, innovative construction and management techniques, and better use of improved technologies are all factors that States have considered. Innovative contracting techniques have provided States with greater flexibility to address these concerns and encouraged contractors to be more creative in addressing the States’ needs. We believe

that this increased flexibility and creativity will benefit the entire transportation community. In particular, we believe that innovative contracting can help to reduce congestion on our Nation's highways.

More flexible procurement arrangements are often a key part of public-private partnerships. Although the emphasis of discussion concerning public-private partnerships has focused on private financing, public-private partnerships also can involve contracting methods that increase private-sector involvement. Using innovative contracting techniques, the private sector assumes those project risks that it can better manage, thereby increasing the speed and efficiency of project delivery. The Federal Highway Administration (FHWA) has undertaken a number of activities to explore and promote the use of innovative contracting techniques by both States and the private sector.

Special Experimental Project No. 14 (SEP-14)

Since 1990, FHWA has been supporting the evaluation of nontraditional contracting techniques through Special Experimental Project No. 14, Innovative Contracting (SEP-14), to improve efficiency in highway project delivery. In 2002, FHWA changed the name of SEP-14 from "Innovative Contracting" and "Alternative Contracting" to reflect that many of the contracting practices which had been the focus of experimentation have become widely used. The concept of SEP-14 originated in 1988 with the establishment of a Transportation Research Board (TRB) task force to evaluate innovative contracting practices. The TRB task force issued a number of recommendations and requested that FHWA establish a Special Experimental Project to evaluate these recommendations.

In response, SEP-14 was developed, under FHWA's authority to conduct research in transportation planning and development (23 U.S.C. 502), to provide the States with a vehicle to explore new concepts in construction contracting. Within the Federal-aid highway program, there is some degree of flexibility. Under SEP-14, States submit a work plan to FHWA requesting to test an innovative contracting technique on a particular project. State work plans generally are approved on a project-by-project basis. The objective of SEP-14 is to assess innovative contracting practices that might reduce the life-cycle cost of projects, while maintaining product quality. Although most projects undertaken under SEP-14 have not involved private-sector financing, innovative contracting often involves new and expanded roles for the private sector and, in that way, promotes public-private partnerships.

FHWA continues to use SEP-14 to evaluate a number of innovative contracting techniques to determine if these techniques should be mainstreamed. Several techniques evaluated early in the life of SEP-14 have been adopted as standard practice. In this regard, SEP-14 has proven successful in identifying new contracting techniques to improve the time and cost of project delivery. After evaluation in many States, four SEP-14 experimental techniques have become accepted practice: design-build, cost-plus-time bidding, lane rental, and warranty clauses. These practices have not only resulted in time

and cost efficiencies for traditional highway projects, but also have facilitated greater private sector involvement in project delivery.

Design-Build

One of the biggest changes that has resulted from SEP-14 so far is the design-build contracting method. Design-build allows the contractor maximum flexibility for innovation in the selection of design, materials, and construction methods. With design-build procurement, the contracting agency identifies the end result parameters and establishes the design criteria. The prospective bidders then develop design proposals that optimize their construction abilities. The submitted proposals may be rated by the contracting agency on factors such as design quality, timeliness, management capability, and cost. These factors may be used to adjust the bids for the purpose of awarding the contract.

As I noted at the outset of my testimony, before the law was amended in 1998 by the Transportation Equity Act for the 21st Century (TEA-21), the use of design-build procurement was effectively prohibited on Federal-aid projects. However, beginning in 1990 under SEP-14, States applied to FHWA to use and evaluate design-build on a project-by-project basis. Based on the experience from over 300 experiments, the Department recommended changing the law to permanently allow these types of contracts. Congress agreed and TEA-21 provided statutory authority for States to use design-build on Federal-aid projects after FHWA issued a final rule describing the approval criteria and procedures for utilizing the design-build method. FHWA issued the final rule on design-build on December 10, 2002 (67 FR 75901).

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) made changes to the design-build statute and required FHWA to make changes to the regulation. Section 1307 of TEA-21 defined qualified design-build projects as projects with estimated total costs over \$5 million for ITS projects and \$50 million for other projects. SAFETEA-LU eliminated these dollar thresholds for all projects. Additionally, the design-build rule, issued as a result of TEA-21, prohibited the release of a design-build request for proposal (RFP) until the requirements of the National Environmental Policy Act (NEPA) have been met. Section 1503 of SAFETEA-LU requires FHWA to issue a rulemaking that allows State transportation departments to issue RFPs, award design-build contracts, and issue notices-to-proceed for preliminary design work prior to the conclusion of the NEPA process. FHWA issued a notice of proposed rulemaking to implement this statutory requirement on May 5, 2006 (71 FR 30100), and plans on issuing a final rule early this summer.

There are a number of reasons why design-build may be the preferred method to procure a highway project. The use of design-build can result in cost savings, price certainty, and time savings for the State. From the private sector's perspective, design-build gives the contractor greater flexibility to achieve the project's purpose. The State, the private sector, and users of the facility benefit from the opportunity for more innovation.

Cost savings from design-build contracts are generally attributed to a closer working relationship between the designer and contractor, who are the “design-build team.” The team approach allows the designers and contractors to resolve design and constructability issues before they arise in the field. Design-build allows for a more detailed and effective value engineering process during preliminary engineering. Also, having the design-builder lead this effort provides a greater opportunity to incorporate construction cost efficiencies and optimize life-cycle costs for the project.

Under the traditional design-bid-build process, there are typically separate contracts for design and construction as well as a multitude of contracts for various phases of construction work. The State assumes the risk of increased costs and delayed schedules, because it is responsible for accepting the work before it passes the project from one contractor to the next. State departments of transportation may prefer to use design-build for certain types of projects over the traditional design-bid-build approach, because projects can be procured with greater price and schedule certainty using design-build rather than traditional design-bid-build contracts.

Greater schedule certainty may occur with design-build, because a design-builder generally will conduct constructability and scheduling reviews in preparing its design-build proposal. The design-build team knows it must be competitive on price, quality, and schedule in order to be the successful proposer. A proposal that demonstrates increased attention to the details of constructability and schedule will enhance its potential for being selected.

Under the design-build approach, greater price certainty is achieved, because State agencies negotiate fixed prices for these contracts based on the design-build team achieving a particular result within a set period of time. Under a design-build contract, the design-builder is responsible for the final design and any necessary changes as the project develops. The lump-sum, fixed-price approach for most design-build contracts eliminates most change orders, because the design-build team is responsible for adapting and solving most unanticipated challenges.

The potential time savings in the overall project delivery schedule is another significant benefit from the State’s perspective. Since design and construction are performed through one procurement, construction can begin before all design details are finalized. For example: pile driving could begin while bridge lighting is still being designed. Because both design and construction are performed under the same contract, claims for design errors or construction delays due to design errors are not allowed and the potential for other types of claims is greatly reduced.

TEA-21 required FHWA to prepare a report to Congress that assessed the design-build method. The report, entitled *Design-Build Effectiveness Study*, was sent to Congress in January 2006. A survey of managers of design-build projects, conducted in connection with the report, indicated that, on average, the design-build method reduced

the overall duration of a project by 14% and maintained the same level of quality as compared to the tradition design-bid-build contracts.

From the private sector's perspective, by allowing the contractor to optimize its work force, equipment and scheduling, the design-build concept opens up a new degree of flexibility for innovation. The contractor also has the ability to decide the best methods and materials for the project subject to the State's oversight. Innovative technologies and techniques relating to construction materials and equipment as well as design methods can result in reducing the time and cost to complete the project. This increased flexibility means that the contractor must also assume greater responsibility for any schedule or cost overruns.

One of the concerns that have been raised is that small firms may be impacted negatively by the use of the design-build method. The concerns are that small businesses may not be able to participate in design-build projects, particularly as the lead or prime contractor, due to the large size and scale of the projects, more stringent qualification requirements, and higher bonding requirements. The information obtained for the report to Congress on design-build indicated that the percentage of design-build project costs going to small businesses are almost the same, on average, as the amount under the traditional design-bid-build approach. Thus, these results suggest that small businesses are not disadvantaged by the use of design-build.

Cost-Plus-Time Bidding

SEP-14 resulted in the mainstreaming of cost-plus-time bidding. Cost-plus-time bidding, more commonly referred to as the A+B method, is a bidding procedure in which the low bidder is selected based on a monetary combination of the contract bid items and the time needed to complete the project or a critical portion of the project. Under the A+B method, each bid submitted consists of two components. The "A" component is the traditional bid for the contract items and is the dollar amount for all work to be performed under the contract. The "B" component is a "bid" of the total number of calendar days required to complete the project, as estimated by the bidder.

The bid for award consideration is based on a combination of the bid for the contract items and the associated cost of the time, according to the formula: $(A) + (B \times \text{Road User Cost} / \text{Day})$. This formula is only used to determine the lowest bid for award and is not used to determine payment to the contractor. A disincentive provision, that assesses road user costs, is incorporated into the contract to discourage the contractor from overrunning the time "bid" for the project. In addition, an incentive provision usually is included to reward the contractor if the work is completed earlier than the time bid.

Under SEP-14, 27 States and D.C. used and evaluated the A+B method. States that have used A+B have generally reported good results. Contract times have been reduced, costs have been acceptable and quality has been maintained. In particular,

the A+B method has proven to be an effective technique for reducing the impacts of critical projects that would result in long delays for road users.

After a five-year evaluation period, FHWA issued a policy memo on May 4, 1995, (<http://www.fhwa.dot.gov/programadmin/contracts/050495.cfm>) that announced the A+B method is an operational technique, and is no longer considered to be experimental.

Lane Rental

Like cost-plus-time bidding, the goal of the lane rental concept is to encourage contractors to minimize road user impacts during construction. Including a lane rental provision in a contract encourages contractors to schedule their work to keep traffic restrictions to a minimum, in terms of duration, the time of day, and number of lane closures. The lane rental concept has merit for use on projects that significantly impact the traveling public; major urban area projects are prime candidates for this approach.

Under the lane rental concept, a provision for a rental fee assessment is included in the contract. The lane rental fee is based on estimated cost of delay or inconvenience to the road user during the rental period. The fee is assessed for the time that the contractor occupies or obstructs part of the roadway and is deducted from the monthly progress payments. The rental fee rates are stated in the bidding proposal in dollars per lane per time period, which could be daily, hourly or fractions of an hour. The contractor is free to determine its construction schedules, but must pay the lane rental fee described in the bidding proposal. The rental fee rates are dependent on the number and type of lanes closed and can vary for different hours of the day. For example: the rush hour periods of 6:30 to 9:00 am and 3:00 to 6:00 pm could have an hourly rental fee of \$2000 for closing one lane, while a lane could be closed at any other time at a rental fee of \$500 per hour.

Under SEP-14, five States evaluated the lane rental technique. After a five-year evaluation period, FHWA issued a policy memo on May 4, 1995, (<http://www.fhwa.dot.gov/programadmin/contracts/050495.cfm>) that announced lane rental is an operational technique, and is no longer considered to be experimental.

Warranty

Warranty clauses provide assurance that a product used on a highway project will serve its useful life without failure. If failure does occur, the contractor, not the State, is responsible for the repair or replacement of the product. The premise behind a warranty clause is that a contractor is more likely to contribute to a high quality product in order to reduce future repair and maintenance costs. Thus, the major benefit of a warranty is improved life-cycle costs.

Warranties have been successfully used in other countries and by some States on non-Federal-aid projects, to protect investments from early failure. Prior to 1991, the

FHWA had a longstanding policy that restricted the use of warranties on Federal-aid projects to electrical and mechanical equipment. It was believed that warranties would include routine maintenance work. Since the use of Federal-aid funds for routine maintenance is prohibited by law, FHWA had restricted the use of warranties to avoid Federal-aid funds participating in maintenance costs.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) allowed States to use their own design, construction, maintenance, and operation standards for Federal-aid projects located off the National Highway System. For projects under these conditions, warranty clauses were allowed to be used in accordance with State procedures. FHWA also allowed States to evaluate the use of warranties under SEP-14. On August 25, 1995, FHWA issued a final rule (23 CFR 635.413) allowing the use of warranty clauses for a specific construction product or feature. Routine maintenance items are still not eligible for Federal-aid highway funding. Additionally, warranties for items not within the control of the contractor are prohibited.

Special Experimental Project No. 15 (SEP-15)

Building on the success of SEP-14, on October 6, 2004, FHWA issued a notice in the Federal Register (69 FR 59983) announcing the establishment of Special Experimental Project No.15 (SEP-15) to explore alternative and innovative approaches to the overall project development process. While FHWA has long encouraged increased private sector participation in Federal-aid projects, SEP-15 allows FHWA to explore actively much needed changes in the way we approach the delivery of highway projects to further the Administration's goals of improving safety and reducing congestion. SEP-15 is designed to increase project management flexibility, encourage innovation, improve timely delivery of project construction, and generate new revenue streams for Federal-aid highway projects.

Like SEP-14, SEP-15 allows States to apply to FHWA for conditional approval to test innovative approaches to the project development process on a project-by-project basis. FHWA approval is conditional, because there are many evaluation points along the project life at which times FHWA may withdraw its approval. A State first must submit a proposal to FHWA. FHWA either accepts or rejects each experiment within the proposal. If FHWA accepts some or all of the proposed experiment, an early development agreement is negotiated with the State. The early development agreement identifies the parameters for the experiment, performance measures that will be used to evaluate the experiment, any stop points for the experiment, and a description of what should be included in the final report that analyzes the experiment.

One of the four areas of project delivery that SEP-15 seeks to address is contracting. SEP-15 builds on SEP-14's approach to innovative contracting. The difference between SEP-14 and SEP-15, is that the SEP-15 projects are focused on evaluating the use of conditional Federal approval earlier in the project development process than the typical SEP-14 project. Under SEP-15, States have the flexibility to propose innovative procurement ideas. However, the proposal must describe how the

procurement method will encourage competition; what effect the method might have on other Federal and State laws, such as environmental laws; how the method will provide for adequate government oversight and control to protect the public interest; and how the method will meet the goals of SEP-15. However, SEP-15 may not be used to experiment with authority outside of title 23, U.S.C., nor can it be used to experiment with State law. Applicants must fully comply with all applicable State and Federal laws and regulations, other than areas under title 23 identified for experimentation. Additionally, experiments are conducted with close oversight and monitoring by FHWA. Thus, SEP-15 will allow for innovations in project delivery, while maintaining FHWA's stewardship responsibilities to protect taxpayers and the environment.

An example of a current SEP-15 method being evaluated is the procurement process being used for the Oregon Innovative Partnerships Program, under which Oregon identified three projects for development. One of the experiments Oregon proposed is a procurement approach under which the price for final design and construction will be negotiated with the developer using an "open book" approach, allowing an analysis to be performed to confirm that the price is reasonable. The design-build rule generally contemplates that a proposed lump sum price for design-build services will be a factor in contractor selection, thus allowing a competing price proposal to be used as the basis for determining price reasonableness. FHWA gave Oregon conditional approval to proceed with this approach, but continues to monitor whether this approach is adequately ensuring competition and a reasonable price.

SEP-15 also has proven successful in educating FHWA about potential issues with regard to design-build. Prior to the enactment of SAFETEA-LU, FHWA granted Texas and Oregon conditional approval to issue an RFP for a design-build contract prior to the completion of the NEPA process. In negotiating Early Development Agreements with both Texas and Oregon, FHWA worked out many issues related to the relationship between design-build and the NEPA process. This knowledge helped in the development of the design-build rulemaking required by SAFETEA-LU, which will allow issuance of RFPs, awarding of contracts, and issuance of notices-to-proceed for preliminary design work prior to the conclusion of the NEPA process. However, the rulemaking will still prohibit a design-build contractor from proceeding with final design and construction prior to the completion of the NEPA process.

Conclusion

Our nation faces challenges at the Federal, State, and local levels in addressing our mobility needs. Innovative contracting techniques are one method by which transportation agencies can address these needs in a cost-efficient and timely way. These innovative contracting techniques also can lead to increased involvement of the private sector. Ultimately, we believe that innovative contracting can help to reduce congestion. By using its authority to conduct reasonable experiments, FHWA can assess new techniques as a prelude to proposing permanent statutory changes or considering regulatory changes. FHWA will continue to explore and evaluate innovative contracting methods, while protecting the public interest.

Mr. Chairman, Members, thank you for this opportunity to testify. I will be pleased to answer any questions you may have.