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The Promise of Public–Private Partnerships for Road Funding

By Darius S. Irani

As traditional public funding for new roads tightens, traffic congestion continues to expand on U.S. highways. In response, there is a growing interest among state DOTs to use public–private partnerships (PPPs) to create new roads or fund needed improvements to existing roads that are not covered by state or federal coffers. Where such funding exists, DOTs use these partnerships to accelerate projects that otherwise might have taken years, or even decades, to complete.

For DOTs that haven't used PPPs, the concept may sound great in theory, but the practicalities of sharing responsibilities, as well as risks, with private developers or contractors can seem complicated and potentially rife with problems. The good news is that a tool called a comprehensive development agreement (CDA), already in use in Texas, goes a long way toward making a PPP project successful. To further help DOTs choose a PPP, a new federal Special Experimental Project program, SEP-15, seeks to streamline federal interaction on a project when a PPP is involved. SEP-15 allows states to pursue PPP relationships within the bounds of the federal aid program so states can gain experience with these projects before needing to create specific state PPP laws and regulations. (Both CDAs and the SEP-15 are described in further detail below.)

Simply stated, a PPP can build a road that would otherwise not be built. The sharing and blending of private and public assets and resources typically yields a lower-cost project at the same or a better level of quality than traditionally funded projects. Meanwhile, state general funds are preserved.

Making New Roads Possible

DOTs understand that state and federal funds alone won't build needed roads. Without special financing or alternate means of completing projects, states can't address congestion and safety issues in new or improved facilities within a short time frame, if at all. That's where PPPs come in.

Simply stated, a PPP can build a road that would otherwise not be built. In fact, PPP projects offer the best way to build high-cost, high-need roads, such as the Trans-Texas Corridor. The sharing and blending of private and public assets and resources typically yields a lower-cost project at the same or a better level of quality than traditionally funded projects. Meanwhile, state general funds are preserved. Tolls alone may not cover 100 percent of a PPP facility's costs; bond funds or state and federal funding from future gas-tax funds may be needed to make the project feasible. But these funds are better leveraged when used in a PPP.

The current federal administration has made it clear that getting more private-sector investment in transportation is a top priority. State DOTs are always interested in "new" money, and the aggressiveness of private-sector interests has demonstrated that the right project can attract new money to the transportation world.

In a PPP project, a private firm, the concessionaire, funds, designs, constructs, and operates toll-road facilities within the state. The state assists with environmental permitting, right-of-way acquisition, plans and specifications reviews, and construction oversight. After some period of time, typically 30 to 50 years, the state takes over ownership of the infrastructure and determines how to operate and maintain the facility in the future.

PPP projects should leave all parties satisfied when risks are shared and responsibilities clearly identified. For instance, all members of the team must understand which group is responsible for coordinating utilities or completing environmental permitting. The key to identifying and clarifying these points, and others, is the CDA.

Choosing a CDA

A CDA is a contracting tool used by a DOT in the design, construction, rehabilitation, expansion, and improvement of a transportation facility. CDAs can also address financing, right-of-way acquisition, maintenance, and operation of the facility. In Texas, for example, CDAs are applied to toll projects, facilities in the Trans-Texas Corridor, and several types of state highway improvement projects.

A DOT may establish different types of CDAs to address different situations. The Texas DOT uses three types of agreements: design–build, predevelopment, and concession.

A design–build CDA is used when typical development-phase issues, such as environmental reviews, regulatory approvals, and financing, have already been resolved. Since the contractor is coming into the project at the design–build stage, much of the risk and responsibility for the project are shifted to that firm. The result is a shortened schedule, an advantage to all parties because it means toll collection can begin sooner.

A predevelopment CDA comes into play for less-defined projects. The developer advances the project schedule by funding the typical two- to three-year development stage in which environmental impacts, financing, and feasibility are determined. In exchange for financing the development plan, including environmental analyses, the developer gains the sole right to negotiate later either a design–build CDA or a concession CDA.

Finally, a concession CDA is used for a project that is generally well-defined but with some elements, such as an environmental record of decision (ROD), financing, or right-of-way considerations, not yet established. A concession CDA typically results in significant payment to the DOT by the concessionaire, who will in turn design, build, operate, maintain, and finance the facility.

The CDA process starts when a DOT receives and evaluates an unsolicited proposal from a concessionaire. If the DOT deems the proposal viable, it officially requests competitive offers. After a process of short-listing solicited proposals, the DOT's pursuit of a more specific, detailed proposal follows a standard contracting process, with request for qualifications (RFQ) and request for proposal (RFP) review and selection. In some instances, a DOT may decide to put the CDA out for bids before unsolicited proposals are received.

Ensuring a Successful CDA

A successful CDA is characterized by four key features:

- Costs are controlled;
- The right staff for the project are identified and included;
- Procedures and plans to steer the project are in place; and
- Clear contract terms are established.

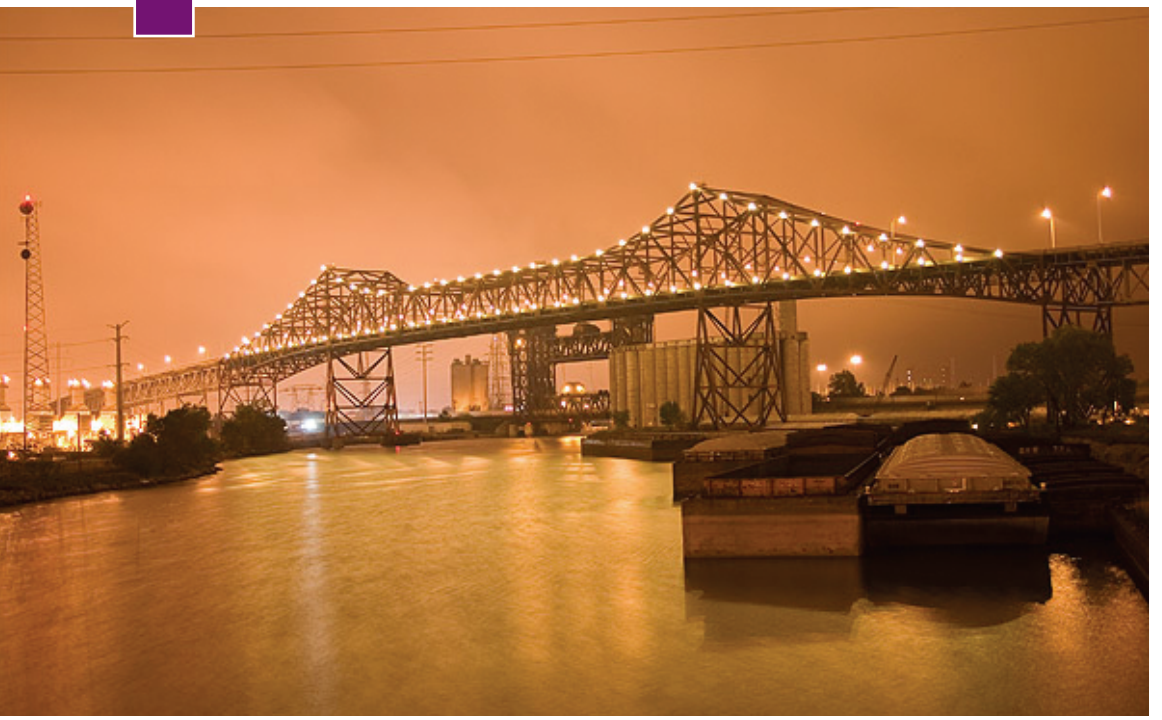
Project management tools such as Primavera and other scheduling software, plus Web-based project management tools for sharing information efficiently, go a long way toward meeting these goals.

Controlling Costs

The CDA should establish, verify, and monitor budgets and adjust them whenever changes in scope occur. In addition, the project team must consider the cost implications of every decision made in all phases.

Including the Right Staff

To avoid project delays and mistakes due to poor coordination or miscommunication, the key team members should include representatives of municipalities and utilities located in the project zone, a quality assurance team,



and DOT maintenance department personnel in addition to DOT staff, transit authorities, the concessionaire, contractors, designers, and toll operators.

Steering the Process

Standard review and approval procedures should be established and conveyed clearly to all team members, from DOT staff to regulatory permitting agencies and the concession team. Another important piece, a recovery plan, should be developed, then activated if the project falls behind schedule and overruns budgets. Close-out and warranty requirements, also called "hand-back standards," which relate to the number of years the contractor is responsible for maintaining the facility after completion and include pavement life cycle, bridge condition surveys, and toll equipment upgrades, should be established early in the process as well so that the concessionaire can provide a realistic bid.

Establishing Clear Contract Terms

To promote cost-effective decision-making and reduce unknowns and contingencies, a means of sharing risks between the DOT, transit authorities, and the concessionaire must be established. This would include a clear distribution of risks and rewards in the terms and conditions of contracts for all phases of the CDA. An unexpected benefit of this up-front planning is that more potential concessionaires may be attracted to the project because its terms are so clearly defined.

Keeping the Project Moving

A PPP project budget typically runs in the hundreds of millions, if not billions, of dollars, and its total schedule, from development to construction to operation, can stretch over decades. Just as money is hard to find, DOTs likely lack the staff to dedicate to the full-time management of a PPP. An effective means of augmenting staff resources to keep a PPP project moving is to hire consulting engineers to oversee the project in conjunction with DOT staff and/or the concessionaire.

DOT staff perform several key tasks that help keep the project progressing. For instance, staff input is needed during the development and construction phases for incremental reviews and approvals. They must also clearly define minority/small-business participation goals up front as well as consultant and concessionaire selection criteria. The responsibility for setting a "not to exceed" price also falls on DOT staff.

The FHWA's goal with SEP-15 is to retain its stewardship responsibilities for protecting the environment and taxpayers while clearing the way for more PPP projects.

Team members can build several features into the PPP process to smooth the project path further. Constructability reviews and value engineering can be incorporated into the bid process, for example, and the team may choose to issue performance specifications regarding the type and size of the facility to be built, including structures and the roadway itself. In addition, by prequalifying concessionaires and consultants using weighted criteria that consider experience, financial strength, available resources, work history, bonding, and licensing, the team can avoid problems later in the project. Finally, many teams use partnering meetings and professional facilitators to keep the project flowing.

The Role of SEP-15

The Federal Highway Administration (FHWA), along with state officials, realizes that public funding for transportation projects is unlikely to increase in the near future. The agency recognizes the revenue source PPPs offer and in December 2004 developed the SEP-15 pilot program to encourage their use while streamlining its own role in the PPP process.

The FHWA's goal with SEP-15 is to retain its stewardship responsibilities for protecting the environment and taxpayers while clearing the way for more PPP projects. The agency intends to use SEP-15 to enhance PPP projects with more flexible project management, improved efficiency, shorter project schedules, and new revenue streams by identifying barriers and hurdles to PPP projects in current laws and practices and finding ways to overcome them.

Specifically, SEP-15 addresses four portions of a PPP:

- Contracting,
- Environmental compliance,
- Right-of-way (ROW) acquisition, and
- Financing.

Contracting will be characterized by greater flexibility for project teams, which will be allowed to choose their own procurement methods as long as they comply with state law. Although full National Environmental Protection Agency (NEPA) and other environmental compliance is required, SEP-15 provides for some flexibility in applying NEPA and FHWA requirements.

SEP-15 offers every state DOT the opportunity to experiment within the "protection" of the existing federal aid program. This type of experimentation in the past has led to breakthroughs like the Transportation Infrastructure Finance and Innovation Act (TIFIA), Grant Anticipation Revenue Vehicle (GARVEE) bonds, and the greater use of design–build strategies.

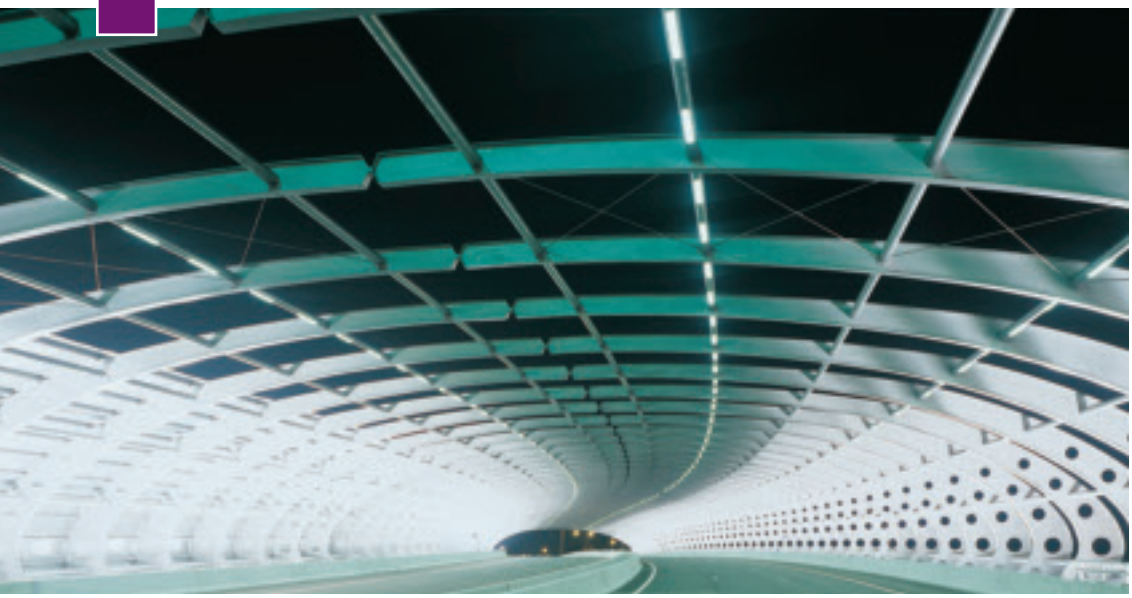
By consolidating the final design, ROW acquisition, and construction under one contract, the PPP project can implement these three activities simultaneously rather than sequentially. In addition, the PPP process enables DOTs to share financial risk with, and assign substantial project risk to, the party best able to manage that risk early in the project development process.

SEP-15 encourages testing and evaluation of alternative approaches to all phases of the project development process, such as

- Transportation planning,
- Innovative financing,
- Accelerated land acquisition,
- Alternative project contracting and delivery, and
- Environmental clearance functions consistent with applicable federal and state laws and regulations.

The Road Ahead

DOTs need not fear the PPP movement, because this approach, when carefully managed using CDAs, results in the completion of road projects that might not otherwise have been constructed. The opportunity to add beneficial transportation facilities for citizens comes about through a PPP's efficient delivery method. With SEP-15, the process is only becoming more flexible and manageable for state agencies as they implement new tools, in both financing and engineering/construction, to accomplish their missions for 21st-century transportation facilities.



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Darius S. Irani is a vice president and director of national strategic programs with the consulting firm PBS&J, in the company's Orange, California, office. He has been involved in major design–build and PPP programs nationwide for almost two decades. He may be reached at dsirani@pbsj.com.