EXECUTIVE SUMMARY

The Arkansas State Highway and Transportation Department (AHTD), serving as the project manager for the seven-state I-69 Steering Committee, procured consultant services in August 2011 to conduct an innovative financing study for the Interstate Highway 69 (I-69) corridor from Indianapolis, Indiana, to the Mexican border in the Lower Rio Grande Valley in Texas. The corridor evaluated for this study includes I-69 segments of independent utility (SIUs) located in Indiana, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana and Texas. The purpose of the study is to explore innovative financing options including toll revenue potential to allow the I-69 Steering Committee to make decisions on project development and delivery.

The I-69 Innovative Finance Study was conducted in two phases. The first phase consisted primarily of data collection, an assessment of corridor characteristics, availability of non-toll funding and tolling legislation and development of the traffic and toll revenue forecasting methodology to be implemented in Phase II. Phase I of the study was completed in December 2011. On February 1, 2012, representatives from each state attended a Steering Committee meeting to discuss preliminary findings of the data collected to date and to strategize on the path forward for Phase II of the study. The scope of the second phase of the study was a more-detailed analysis that included development of a corridor-level tolling concept, 40-year traffic and revenue forecast, 40-year lifecycle cost, and a conceptual feasibility analysis. Based on the outcome of the February 1st Steering Committee meeting and follow-up discussions throughout Phase II, conceptual toll feasibility analyses were developed for the following SIUs:

SIU 2 – Indiana	SIU 9A/9B – Tennessee	SIU 13 – Arkansas
SIU 3 – Indiana	SIU 9A/9B – Mississippi	SIU 14 – Louisiana
SIU 4 – Indiana	SIU 10 – Mississippi	SIU 15 – Louisiana
SIU 4 – Kentucky	SIU 11 – Mississippi	SIU 16 – Louisiana
SIU 7 – Tennessee	SIU 12 – Mississippi	SIU 14 – Arkansas
SIU 8 – Tennessee	SIU 12 – Arkansas	SIU 28 – Arkansas

No tolled traffic and toll revenue forecasts were developed for Texas SIUs as TxDOT is not considering the use of tolling as a funding mechanism for any currently planned portion of the I-69 route in Texas. Additionally, tolled traffic and toll revenue forecasts were not developed for SIUs 5 and 6 in Kentucky as the tolls on these SIUs were removed many years ago and there are no present or future plans to reinstate tolls on those segments.

A feasibility ratio, which represents the ratio of financial capacity to total life cycle project cost, was calculated for each tolled SIU based on the traffic and toll revenue forecast and capital, operations, maintenance, and lifecycle cost estimates developed during Phase II. If the ratio of financial capacity to project costs exceeds 1.0, the project could be financed from toll revenues on a self supporting basis.

Ratios less than 1.0 indicate toll revenues are not sufficient to fully support project needs. Table ES-1 identifies the feasibility ratio for each state and the total I-69 corridor.

Table ES-1
I-69 Corridor Conceptual Feasibility Analysis Results Summary
in 2012 dollars (millions $)

Toll Feasibility Analysis Element	States with Tolled Segments						Total Corridor
	AR	IN*	KY**	LA	MS	TN	
Financial Capacity in 2012 dollars (estimated amount of debt)	$333	$2,407	$154	$304	$806	$1,342	$5,346
2012 Project Cost	$3,169	$1,543	$592	$2,165	$1,794	$1,858	$11,121
Ratio of Financial Capacity to Project Cost	0.11	1.56	0.26	0.14	0.45	0.72	0.48
Surplus/Deficit	($2,836)	$864	($438)	($1,861)	($988)	($516)	($5,775)

*INDOT may not impose tolls on I-69 without authorization from the Indiana General Assembly under Indiana Code 8-15-3-9(e)(3). In addition, INDOT may not impose tolls without prior approval from the FHWA.

**SIU 4 only.

As noted in Table ES-1, Indiana is the only state that could generate sufficient revenue to fully cover the cost of I-69 within the state. The primary reasons for this high feasibility ratio include the following:

- One of the Indiana I-69 segments of independent utility (SIU) passes through an urban area with existing high traffic volumes that could potentially generate significant revenue. Additionally, the majority of this SIU is on existing alignment, which results in minimal capital costs.
- The majority of another Indiana SIU is already constructed or funded. Therefore, the capital costs are minimal relative to the potential toll revenues for an approximately 140-mile segment.

Although insufficient toll revenues are projected to be generated to fully cover the cost to complete, operate, and maintain I-69, for those SIUs analyzed as toll facilities, toll revenues are projected to be sufficient to operate, maintain, and pay for renewal and replacement costs for all SIUs evaluated.

In addition to evaluating toll feasibility for all SIUs, the impact of alternative financing and credit structures was tested against a select number of SIUs to assess how such strategies may impact feasibility. The SIUs selected include SIU 4 Indiana-Kentucky, SIU 11 Mississippi, SIU 12 Arkansas, SIU 13 Arkansas, and SIU 15 Louisiana, which represent large projects with significant funding needs. Three cases were tested as described below:

- **Base Case:** This case assumes the SIU's financing is solely supported by toll revenues.

- **Case 1:** Under this case, the security for the bonds and the TIFIA loan are enhanced by a contractual obligation of the State DOT to pay operations, maintenance and rehabilitation, and replacement expenses to the extent toll revenues are not sufficient.
- **Case 2:** This case improves on Case 1 by adding a full secondary lien security or legal pledge to the debt from a high credit worthy non-toll revenue source(s) such as a state transportation trust fund or a state's full faith and credit.

Table ES-2 summarizes the results of the Base Case, Case 1, and Case 2 for each SIU analyzed by presenting the percentage of project costs covered by bond and TIFIA proceeds.

Table ES-2
Alternative Financing Scenarios Summary
Percent of Project Costs Funded from Bond and TIFIA Proceeds

SIU	Base	Case 1	Case 2
SIU 4 IN and KY	71%	90%	100%
SIU 11 MS	54%	61%	74%
SIU 12 AR	13%	18%	23%
SIU 13 AR	32%	39%	45%
SIU 15 LA	33%	42%	55%

As shown in ES-2, for SIU 4, the amount of project costs funded increases to 90 percent with the back-up pledge operations and maintenance and rehabilitation and replacement expense and to 100 percent with the additional pledge of the secondary revenue source. While the remaining four SIUs were not fully funded under this analysis due to the fundamentals of their toll revenue generation relative to project costs, all showed an improvement in the percentage of project costs funded due to the availability of credit enhancement assumed under Case 1 and Case 2.

There is a continuum of alternative project delivery options that can be considered to construct, finance, and operate a toll project, ranging from a traditional design-bid-build approach to a full long-term toll concession. The options in between represent a mix of project related risk transfer to the private sector from the public sector. While an alternative project delivery option such as a long-term toll concession can result in less efficient project capital production because of (1) a higher cost of capital due to greater return requirements for PABs and private equity, and (2) increased ongoing costs associated with Federal and or state tax payments, it will provide an opportunity for a project sponsor through a negotiated long-term concession contract to dramatically shift toll revenue and project whole life cost risks to the private sector partner. Given the preliminary nature of this analysis, the options for and cost/benefit impacts of alternative project delivery structures could not be evaluated at this time. As the development of a particular SIU progresses and more-detailed project planning, engineering, and traffic and revenue analysis are undertaken, these options can be more adequately analyzed and compared as part of those subsequent phases of work.

Based on the results of this study, toll revenues could represent one element of an overall financial package for consideration. However, in most cases toll revenues are unlikely to fully cover the costs of each SIU. Other funding sources such as Federal and State government loans and/or loan guarantees could potentially leverage bond financing beyond the levels presented in this study. For those SIUs with less than a 0.75 feasibility ratio, a second source of revenue to fill the gap is likely to be needed. Based on the limited availability of resources for I-69 at the state level, it appears that significant Federal assistance will be required to advance development of the I-69 corridor, particularly given the high cost of the bridges across the Ohio and Mississippi Rivers that are keys to ensuring connectivity throughout the corridor.