



Project Summary Report O-4055-S

Project O-4055: Guidelines for TxDOT—Regional Tollway
Authority Cooperation

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Enhancing TxDOT—Regional Toll Authority Cooperation and Coordination

The Texas Department of Transportation (TxDOT) and other agencies continue to explore new and innovative methods to address concerns related to traffic congestion, mobility, and accessibility. Expanding the use of toll facilities in the state is one approach receiving increased emphasis.

Interest in toll roads goes back to the early 1840s, when the Republic of Texas authorized the Houston and Austin Turnpike Company to build a toll road between the two communities. It was not until the 1950s, however, with the passage of the Texas Turnpike Act, that the first toll road was built in the state. The Dallas-Fort Worth Turnpike was opened in 1957 and operated as a toll road until 1977 when it was turned over to the Texas Highway Department upon repayment of the bonds.

Toll roads are part of the transportation system in the Houston area, the Dallas-Fort Worth Metroplex, and Laredo. The Sam Houston Toll Road and the Hardy Toll Road are operated

by the Harris County Toll Road Authority (HCTRA). The North Texas Tollway Authority (NTTA) operates the North Dallas Tollway, the President George Bush Turnpike, the Mountain Creek Lake Toll Bridge, and the Addison Tunnel. The Fort Bend County Toll Road Authority

in 2001 allows for the creation of regional mobility authorities (RMAs) to construct and operate toll facilities. House Bill 3588, passed in 2003, provides RMAs with additional authority, creates new opportunities for toll facilities, and promotes collaboration among agencies.



Photo courtesy of DeWitt Garth, HCTRA

Sam Houston Toll Road plaza in Houston

(FBCTRA) is developing two toll roads. The TxDOT Texas Turnpike Authority (TTA) Division is constructing the Central Texas Turnpike Project. The Camino Columbia Turnpike in Laredo is the only privately owned toll road in the state.

While toll roads are not new in Texas, there is growing interest in expanding their use to address traffic congestion and mobility concerns. Legislation approved

Enhanced coordination among TxDOT, toll authorities, and RMAs is critical to help ensure that new facilities are planned, designed, funded, constructed, and operated as part of a safe, efficient, and effective transportation system. This research project developed guidelines for TxDOT, toll authority, and RMA cooperation and coordination.





Construction of toll road ramp

What We Did...

Researchers examined the interaction and coordination to date between TxDOT and regional toll authorities in Texas. The establishment of the Central Texas Regional Mobility Authority (CTRMA) was monitored, along with RMA-related activities in other parts of the state. The experiences with toll facilities in other parts of the country were examined. These national case studies focused primarily on new and innovative approaches with toll facilities in Colorado, California, and Florida.

Working with the Project Monitoring Committee, researchers used the results from the state and national case studies to develop draft guidelines for enhancing cooperation and coordination among TxDOT, regional toll authorities, and RMAs. The guidelines address planning, environmental review, funding, design, construction, monitoring and evaluation, and management and operation.

Representatives from TxDOT districts and divisions, toll authorities, CTRMA, metropolitan planning organizations, transit authorities, and other groups were invited to review the draft guidelines and to participate in workshops in Austin and Houston. Researchers finalized the guidelines based on comments and suggestions received at the workshops.

What We Found...

We found that TxDOT districts and divisions are working collaboratively with toll authorities in Harris and Fort Bend Counties and in the Dallas-Fort Worth Metroplex. TxDOT is heading the development of the Central Texas Turnpike Project and is establishing strong working relationships with the CTRMA and groups in other parts of the state.

Memoranda of agreement (MOAs) among TxDOT, the Federal Highway Administration (FHWA), and toll authorities have been used on toll projects to identify the roles and the responsibilities of all parties. These MOAs typically address the interchanges and connections between freeways and toll roads. Examples of more recent innovative approaches include the use of an Intermodal Surface Transportation Efficiency Act (ISTEA) loan on the George Bush Turnpike in the Dallas-Fort Worth area, HCTRA involvement in the managed lanes as part of the Katy Freeway expansion project in Houston, and the use of an exclusive development agreement on the SH 130 project in the Austin area.

The national case studies identified examples of innovative funding techniques, institutional arrangements, and operational strategies. Legislation in Colorado allowing counties to

form public highway authorities, and to implement a \$10 county vehicle registration fee upon voter approval, was instrumental in the development of the E-470 Tollway in Denver. Legislation in California provides for the establishment of transportation corridor agencies (TCAs) with bonding, but not taxing, authority to construct toll roads. Two TCAs have been formed in Orange County to build toll roads, which are owned and operated by the California Department of Transportation (Caltrans) as part of the state system.

A number of common themes emerged from the Texas and national case studies. These themes focus on the need for state legislation to provide for toll opportunities, the creation of new authorities to oversee development and operation of toll projects, and the use of innovative financing techniques in addition to bonding and traditional state and federal programs.

The case studies also point out the differences and the similarities between TxDOT or other state agencies and toll authorities. For example, TxDOT and toll authorities have different business philosophies. TxDOT is responsible for transportation throughout the state and is accountable to the tax payers. Toll authorities have a county or multi-county base and serve their customers, or those individuals willing to pay more for the benefits provided by a toll road. The success of a toll authority is based on the ability to generate revenue to repay bonds. In general, TxDOT and toll authorities use similar plans, specifications, and estimates (PS&E) processes, as well as the same pre-tested materials.



The Researchers Recommend...

- The researchers recommend wide-spread distribution and promotion of the guidelines throughout TxDOT—to TTA and to each of the 25 districts, as well as to Texas toll authorities and RMAs.
- It is also recommended that the guidelines be used by these entities when new toll facilities are being planned.

These recommendations are based on the following:

- The guidelines developed in this research support TxDOT’s mission to provide for the safe, effective, and efficient movement of people and goods. The guidelines provide direction to TxDOT staff for enhancing coordination and cooperation with regional toll authorities and RMAs. They provide guidance for TxDOT staff and other groups involved with toll projects, rather than mandating a specific approach. The guidelines are flexible to meet the unique characteristics and needs of different areas, while providing a common direction for all groups associated with toll facilities.
- The guidelines are appropriate for use with the wide range of toll-related projects that may be under consideration in an area or in various stages of planning, design, construction, and operation. Examples of toll options include building new toll roads, toll bridges, and toll tunnels; converting existing freeways and roadways into toll facilities; incorporating tolling into new or existing managed lanes; and



Harris County Toll Road Authority toll attendant

constructing new toll facilities for trucks and commercial vehicles.

A variety of TxDOT districts and divisions and toll entities may be involved in these types of projects. The following toll entities and existing toll authorities are currently involved in toll projects in the state:

- regional tollway authorities (North Texas Tollway Authority),
- county toll authorities (Harris County Toll Road Authority and Fort Bend County Toll Road Authority),
- the state toll authority (TxDOT’s Texas Turnpike Authority Division),
- private toll road companies (Camino Columbia, Inc.),
- regional mobility authorities (Central Texas Regional Mobility Authority and other regional mobility authorities that may form in the future), and
- the Transportation and Expressway Authority Membership of Texas (TeamTX), which provides a forum for the discussion of issues,

and the exchange of information, ideas, and experiences.

The guidelines are divided into the following eight sections:

- guiding principles,
- planning,
- environmental review,
- funding and financing,
- design,
- construction,
- monitoring and evaluation, and
- management and operation.

Use of these guidelines by TxDOT staff and personnel at regional toll authorities, RMAs, and other groups will help ensure that toll facilities, the Interstate system, and the state highway system provide for the safe, efficient, and effective movement of people and goods. Enhanced cooperation and coordination among all groups will help address traffic congestion, mobility, and accessibility concerns throughout Texas.



For More Details . . .

The research is documented in:

Report 4055-1, *Development of Guidelines for TxDOT—Regional Toll Authority Cooperation and Coordination*

Product 4055-P1, *Guidelines for TxDOT—Regional Toll Authority Cooperation and Coordination*

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The guidelines found in *Guidelines for TxDOT—Regional Toll Authority Cooperation and Coordination* are being directly applied in the Tyler District on Implementation Project 5-4055 “Case Study Analysis of Urban/Rural Area Toll Road Options.” The guidelines are being utilized to help district staff plan and design a toll facility in the district. In addition, a separate implementation project is being developed for workshops to promote distribution and usage of the guidelines in TxDOT’s other 24 districts, and in Regional Tollway/Mobility Authorities. It is anticipated these workshops will be scheduled in the spring and summer months of 2004.

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Disclaimer

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